<table>
<thead>
<tr>
<th>Article Titles &amp; authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Correlation between EFL Learners’ Academic Intelligence and the Level of Productive Skills</td>
<td>3-14</td>
</tr>
<tr>
<td>Dhea Mizhir Krebt</td>
<td></td>
</tr>
<tr>
<td>Students’ Attitudes toward Using Chatbot in EFL Learning</td>
<td>15-27</td>
</tr>
<tr>
<td>Samia Saeed Ahmed Mohamed &amp; Eman Mahmoud Ibrahim Alian</td>
<td></td>
</tr>
<tr>
<td>Investigating Bandura’s Processes of Observational Learning Implementations from EFL Faculty Perspective at Umm Al-Qura University English Language Centre</td>
<td>28-49</td>
</tr>
<tr>
<td>Eman T. Rayes &amp; Nuha K. Albelaihi</td>
<td></td>
</tr>
<tr>
<td>“Golden Curriculum” Instructional Design Competency Framework based on CollegeEnglish Award-Winning Instructional Design</td>
<td>50-65</td>
</tr>
<tr>
<td>Jimiao Yan, Ahmad Johari Bin Sihes &amp; Yan Zhang</td>
<td></td>
</tr>
<tr>
<td>Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks</td>
<td>66-86</td>
</tr>
<tr>
<td>Puterí Ayufiza Asmuni</td>
<td></td>
</tr>
<tr>
<td>Xuan Wang, Jingying Zuo &amp; Xinyi Wang</td>
<td></td>
</tr>
<tr>
<td>Challenges in Incorporating English as the Medium of Instruction at King Saud bin Abdulaziz University for Health Sciences</td>
<td>110-123</td>
</tr>
<tr>
<td>Abdulelah Alkhateeb &amp; Sajjadallah Alhawsawi</td>
<td></td>
</tr>
<tr>
<td>Teachers’ Perceptions of Communicative Language Teaching Approach in English Grammar Teaching</td>
<td>124-136</td>
</tr>
<tr>
<td>Ke Liu &amp; Farhana Diana Deris</td>
<td></td>
</tr>
<tr>
<td>Saudi Teachers’ Perceptions of Teaching English at the First Grade</td>
<td>137-150</td>
</tr>
<tr>
<td>Sultan Altalhab</td>
<td></td>
</tr>
<tr>
<td>Development and Validation of the Chinese Critical Thinking Disposition Scale among Foreign Language Students</td>
<td>151-165</td>
</tr>
<tr>
<td>Ling Xu, Tina Abdullah &amp; Jing An</td>
<td></td>
</tr>
<tr>
<td>EFL Students’ Perception of Using AI Paraphrasing Tools in English Language Research Projects</td>
<td>166-181</td>
</tr>
<tr>
<td>Ammar Alammar &amp; Eman Abdel-Reheem Amin</td>
<td></td>
</tr>
<tr>
<td>Student Engagement in Virtual Learning: The Self-Determination Theory Perspective</td>
<td>182-198</td>
</tr>
<tr>
<td>Farikah, Mimi Mulyani, Astuty &amp; Sukron Mazid</td>
<td></td>
</tr>
<tr>
<td>The Relationship between Reading Attitude and Student Grade Point Average</td>
<td>199-209</td>
</tr>
<tr>
<td>Mousa O. M. Hasan</td>
<td></td>
</tr>
<tr>
<td>The Role of L2 Vocabulary Knowledge in Writing Proficiency from the Perspective of Mediating Effect of Fluency</td>
<td>210-230</td>
</tr>
<tr>
<td>Yanli Tong, Zuwati Hasim &amp; Huzaina Abdul Halim</td>
<td></td>
</tr>
<tr>
<td>Unveiling the Subtle Art of Politeness: An Analysis of Jordanian Educators’ Deployment of Linguistic Strategies in the Official WhatsApp Group</td>
<td>231-254</td>
</tr>
<tr>
<td>Suzan Farouq F. Hussein &amp; Radzuwan Ab Rashid</td>
<td></td>
</tr>
</tbody>
</table>
## Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the Lens of EFL Teachers: Teaching Online on Lockdown</td>
<td>Hatice Çeşme &amp; Birgül Akdağ Çimen</td>
<td>255-275</td>
</tr>
<tr>
<td>Pedagogical Concept of Integrative Teaching and Learning in the Context of Interdepartmental Interaction</td>
<td>Oleksandr Khomenko, Liudmylab Vasylchuk, Andrii Sotnykov &amp; Oksana Slaba</td>
<td>276-291</td>
</tr>
<tr>
<td>Capture to Communicate: Rhetorical Move 1 in the Abstracts of Hard and Soft Science Post-Graduate Dissertations</td>
<td>Ahlam Al-Najhi &amp; Hanaa Samaha</td>
<td>292-308</td>
</tr>
<tr>
<td>Strategies of Content Knowledge Representation and EFL Learners’ English Writing Proficiency: Mediating Role</td>
<td>Shen Xiaolei, Liliati Ibsmail, Hu Yurong &amp; Wei Mengqi</td>
<td>309-323</td>
</tr>
<tr>
<td>of Critical Thinking Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreement Attraction Errors among Saudi Non-Native English Speakers</td>
<td>Wafa Aljuaythin</td>
<td>324-338</td>
</tr>
<tr>
<td>The Effects of Self-Regulated Strategy Development on Writing Skill and Self-Regulated Learning of Thai High</td>
<td>Tivawan Phramphun &amp; Supong Tangkiengsirisin</td>
<td>339-350</td>
</tr>
<tr>
<td>School Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development, Validity, and Reliability of a Theme-based CBI Vocabulary Module for ESL Post-secondary Tourism</td>
<td>Nurhamizah Ishak, Nooreen Noordin, Liliati Ismail &amp; Siti Salina Mustakim</td>
<td>351-367</td>
</tr>
<tr>
<td>Management Students at an English-medium University</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Survey of Undergraduate Chinese Students’ Self-perceived Reading Ability in English</td>
<td>Xizhe Zhang &amp; Joseph Foley</td>
<td>368-379</td>
</tr>
<tr>
<td>A Comprehensive Review of Bloom’s Taxonomy Integration to Enhancing Novice EFLEducators’ Pedagogical Impact</td>
<td>Shohidahon Nurmatova &amp; Mustafa Altun</td>
<td>380-388</td>
</tr>
<tr>
<td>Insights into Chinese College English Undergraduates’ Higher Order Thinking kills</td>
<td>Yue Yin &amp; Norhanim Abdul Samat</td>
<td>389-405</td>
</tr>
<tr>
<td>Students Attitudes Towards Oral Corrective Feedback: A Case Study from Oman</td>
<td>Mahmood AlGhafri , Chahrazed Mirza &amp; Cécile Gabarre</td>
<td>406-417</td>
</tr>
<tr>
<td>The Relationship between the Use of Technology and Technology Addiction in Learning Foreign Language</td>
<td>Ebubekir Bozavlı</td>
<td>418-430</td>
</tr>
<tr>
<td>Comparative Analysis of Reading Text Readability in Chinese Junior High School English Teaching Textbook Based</td>
<td>Wu Mengyao, Helmi Norman &amp; Nor Hafizah Adnan</td>
<td>431-444</td>
</tr>
<tr>
<td>on Corpus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Acceptance of TikTok as a Tool in English Language Learning among University Students</td>
<td>Nor Eleyana Abdullah, Faizah Mohamad, *Mafarhanatul Akmal Ahmad Kamal &amp; Ilham Alia Mat Isa</td>
<td>445-461</td>
</tr>
</tbody>
</table>
The Correlation between EFL Learners' Academic Intelligence and the Level of Productive Skills

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Abstract
Communicating effectively by gaining productive skills in a classroom setting is one of the critical goals of learning the English language. The current study was conducted to explore the correlation of EFL learners' level of academic intelligence with their productive skills. The study tries to find an answer to what is the correlation between EFL learners’ academic intelligence and level of production skills. The study population represents EFL students at the departments of English language of the Iraqi Colleges of Education for the academic year (2022-2023). The sample includes 310 EFL students selected from the 3rd year of the Department of English of the College of Education, Ibn-Rushd for Human Sciences/University of Baghdad, College of Education/University of Diyala, and College of Education/University of Tikrit. The current study has two instruments, the academic intelligence test consists of two dimensions (the operational and the content), while the second instrument used is the test of productive skills, which is composed of two skills; speaking skill consists of six standards (grammar, vocabulary, comprehension, fluency, pronunciation, interaction), and writing skill consists of five criteria (content, organization, grammar, vocabulary, writing technique). The results obtained reveal that there are positive significant correlations between EFL learners' and productive skills. Concerning the productive skills tested in this study, EFL learners succeed in using speaking and writing skills, which constitute a large amount of human communication. Moreover, academic intelligence abilities can help EFL learners develop the skills and strategies necessary for academic success and professional development.

Keywords: Academic intelligence, EFL learners, productive skills, Iraqi students, crystallized intelligence

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Introduction

The main objective of language acquisition is communication. Mastering a language is all about communicating successfully with those who speak that language. Language study is a way to enhance communication abilities, whether it is for a conversation, presentation, or email. Developing speaking and writing abilities is a part of learning a new language (Ozorio, 2014).

However, learning English as a Foreign Language (EFL) can help develop cognitive abilities such as critical thinking, problem-solving, and analytical skills, which are crucial for academic success. These skills are required in language learning and academic tasks such as research, analysis, and writing (Steinberger et al., 2001). That is, students who use their Academic Intelligence (henceforth AI) for engagement in conversation, whether they seek better performance or mastery of the skills, will consequently adjust themselves to achieve their goals, cope with difficulties and challenges, and ultimately be successful communicators.

The present study aims at first finding the correlation between EFL students’ AI and productive skills. The second is finding out the EFL students’ level of AI and productive skills, and the third one is determining the extent to which AI contributes to interpreting the variation in productive skills for Iraqi EFL university students. It hoped that the findings of the study will be helpful for students to be aware of how their AI may aid in improving of their productive abilities. Also, EFL instructors should emphasize the significance of AI in assisting students to regulate their studies and academic activities, specifically in productive skills.

The study tries to find an answer to the following question: What is the correlation between EFL Learners’ academic intelligence and the level of production skills? To answer this question, it hypothesized that there is no statistically significant correlation between the AI and productive skills of EFL university students. To the best knowledge of the researcher, there is no study conducted in the field of education in Iraq concerned with the correlation between AI and productive skills, the current study is trying to shed light on the relationship between these two variables of EFL Iraqi college students and the extent that show their managing of these variables in FL learning.

Literature Review

Academic Intelligence: Definition & Theory

The concept of AI is limited to human cognitive and mental capabilities. It is defined as intellectual performance, within a closed system, on academic tasks or academic problems with fixed objectives, fixed structure, and known elements, distinguished from social, successful, or practical intelligence (Tabatabaee, 2023). On the other hand, AI defined as "a collection of mental abilities, processes, and aptitudes, such as abstract, logical, and consistent reasoning; detecting relations; (complex) problem solving; detecting rules in seemingly unordered materials; solving new tasks by utilizing existing knowledge; adapting to new situations flexibly; and learning without direct and complete instruction. The intellectual thinking and problem-solving processes involved in academic tasks or problems with a fixed and confined structure (Krebt, 2017)."
There are several theories of AI, like Two-Factor Theory of Spearman or the g-Factor Hypothesis, which postulates that intelligence, consists of two factors: a general component (g) and particular skills (s). The general factor (g), according to Xu et al. (2023), is a broad ability that underpins success on all cognitive tasks. In contrast, the specific ability (s), on the other hand, is a more focused ability that is unique to a given type of task. The second theory is related to Sternberg's Tribrachic, which consists of three types of intelligence: analytical, artistic, and practical intelligence. The capacity to think critically and solve issues falls under analytical intelligence. Strong analytical thinkers excel at logical thinking, information application, and novel circumstances. The other theory is related to Gardner's Multiple Intelligences, which stresses the significance of identifying and encouraging various forms of intelligence in people and contends that conventional IQ tests may not fully represent the range of cognitive skills. According to Gardner's (1983) multiple Intelligences theory, intelligence is a collection of unique skills largely independent of one another rather than a singular, all-encompassing talent. According to Gardner's hypothesis, AI is just one form of intelligence, mainly linguistic and logical-mathematical intelligence. Finally, the Fluid and Crystallized Intelligence of Cattell, Horn, and Carroll (CHC) (1987) this theory is made up of three categories of skills (Rozov, 2023):  
A. General Intelligence (g) in Stratum III: The highest degree of intelligence, which underpins performance in all intellectual activities, shows a wide range of knowledgeable abilities.  
B. Stratum II: Broad Abilities: These mid-range skills represent a more focused part of the intellect, such as recollection, fluid intelligence, and crystallized intelligence.  
C. The narrow skills in Stratum I lead to the success of particular cognitive activities, such as word comprehension, perceptual speed, and spatial thinking.  

There are two models of AI, Guilford’s Structure of Intellect Model (SOI) (1967) and Berlin Intelligence Structure Model (BIS) (1982, 1984) (Beauducel & Kersting, 2002). According to Anvarovna (2023), students' cognitive requirements for completing a task can described by the aspect operations, including the following: cognition, memory, divergent production, convergent production, and assessment. The task's figural, symbolic, semantic, and behavioral aspects comprise the content dimension. Units, classes, relations, systems, transformations, and implications, these six components include the product aspect, which describes the results of a mental operation. On the other hand, Beauducel and Kersting (2002) suggest seven second-order features:  

On the SMCR facet:  
- Speed (BIS-S): The ability to rapidly and accurately do routine tasks,  
- Memory (BIS-M): Ability to recall sets of items and their arrangements,  
- Creativity (BIS-C): Ability to generate a wide variety of original ideas quickly and easily,  
- Reasoning (BIS-R): the capacity to construct and plan sophisticated knowledge using inductive and deductive reasoning and other forms of reasoning.
On the VFB facet:
- Verbal (BIS-V): employing all four modalities of cognition to process text.
- Figural-Spatial (BIS-F): Ability to process figural-spatial information utilizing all four cognitive processes.
- Numeric (BIS-N): The capacity to process numerical information via the four distinct cognitive processes.

Productive Skills
According to Nunan (2003), productive skills, including speaking and writing, are essential for several reasons (Rico, 2014):
- Conversation: Effective conversation requires productive abilities. It's crucial to communicate successfully in both personal and business settings.
- Academic success: Since many tasks and examinations require written responses, strong writing abilities are crucial for academic success. Speaking correctly can be essential in speeches and conversations.
- Professional success: Effective communication with coworkers and customers, report writing, and delivering speeches are all examples of professional settings where productive skills are crucial.
- Personal growth: Strong functional skills can also help students advance because they can better arrange their ideas, communicate their views, and show their ingenuity.

Speaking and writing abilities are essential because they allow students to practice real-world activities in the classroom. These two skills can be used as a 'barometer' to determine how much the students have learned. Unless a person is learning English solely for academic purposes and has no intention of communicating in English, which is relatively uncommon, learning to speak is essential. A strong command of speaking skills fosters a genuine sense of advancement and enhances students’ confidence. Learning how to write is vital because written communication is a fundamental life skill. Students may be required to take notes, complete forms, and compose letters, reports, and stories (Al-Jamal & Al-Jamal, 2014).

Academic Intelligence and Language Skills
Academic success is regarded as highly dependent on the cognitive capacity of students. Students from numerous academic disciplines can engage in abstract thought. AI is the capacity to comprehend academic accomplishments. AI is the ability to recognize academic problems from a variety of disciplines. It is defined as the ability to solve problems across multiple academic disciplines and the capacity of a branch of knowledge considered and investigated as part of higher education (Mur Salim, 2021).

Fielder et al. (2002) find that “the correlation is moderated by factors such as the stress experienced by the leader, which apparently can even change the correlation's direction”. The
The Correlation between EFL Learners' Academic Intelligence

Krebt

variety of cognitive skills and abilities required for success in educational contexts can be included in the capacity of AI. These skills consist of:

A. A rational and systematic approach to information analysis, pattern recognition, and reasoning evaluation is known as critical thinking.
B. Problem-solving skills include the capacity to recognize issues, create potential remedies, and choose the best course of action.
C. Analytical thinking is the capacity to dissect complicated information into simpler parts and comprehend how those parts relate.
D. Learning and memory: the capacity to gather, retain, and retrieve knowledge.
E. Information application is the capacity to apply information and skills to novel circumstances and settings.
F. Social and emotional intelligence is the capacity to successfully interact, collaborate with others, and control one's feelings and stress.
G. Perseverance is the capacity to carry on despite obstacles and failures.
H. The capacity to control one's conduct and feelings is known as self-discipline (Arvey et al. 2006).

Method

The type of research design conducted in the present study is correlational design. The study is referred to as correlational when it examines a relationship between two variables without the researcher controlling either of them. A correlational study seeks to determine relationships between two or more variables (Thompson, 2014).

Participants

The study population represents EFL students at the departments of English of the Iraqi colleges of education, except for the Kurdistan region for the academic year (2022-2023). The sample, on the other hand, includes (310) EFL students purposively selected from the 3rd-year students of the Departments of English of the College of Education, Ibn Rushd for Human Sciences/ University of Baghdad 101 (115 students), College of Education/ University of Diyala (110 students), College of Education/University of Tikrit (85 students). The total number of 3rd-year students in the departments included is 995 students; a percentage of 30% is relied on in selecting the sample, which is highly reliable in correlational studies (Duran et al. 2006).

Research Instruments

The Academic Intelligence Test

The academic intelligence test is prepared by constructing items from two dimensions. The first dimension (the operational) consists of four abilities, each one consisting of five items. The second dimension relates to the content, which contains three capabilities, each comprising five items. The total number of the AI test is 35, and the test is one point for the correct answer and zero for the wrong answer. Moreover, the test examines two domains or orientations, operational
and content, with five, five items, respectively, for each direction. Participants' responses are supposed to reflect their functional exposures in their academic setting, like speed and creative ability. On the other hand, the content items indicate participants' disposition towards better learning numerical, verbal, and master figures. That is, they measure content ability. It is worth mentioning that the higher score to be obtained by the participant is (35) while the lower score is zero with a theoretical mean of (17.5).

**Productive Skills Test**

The second instrument used in this study is the test of productive skills which is composed of two skills: speaking skill consists of six standards (grammar, vocabulary, comprehension, fluency, pronunciation, interaction), and writing skill consists of five criteria (content, organization, grammar, vocabulary, writing technique). Accordingly, the highest score obtained by the participant in speaking skills is (30). The lower score is six with a theoretical mean of (18), whereas, the highest score that can be obtained by the participant in writing skills is (20), and the lower score is five with a theoretical mean of (12.5).

**Research Procedures**

*Face Validity*

The measures of the current study exposed to a jury of (15) experts in the field of methods of teaching English and the field of linguistics to provide their viewpoints concerning the adequacy and appropriateness of the items of each measure. The experts show their approval of the suitability of the items for the topic and sample concerned.

*Test Reliability*

The researcher relied on the internal consistency method to find test stability, which is a method that depends on the correlation between the test items with each other within the test. To extract the stability in this way, the equation (Queder Richardson 20) was applied to the scores of the sample (310) male and female students. Hence, the value of the test stability coefficient was (0.91). Thus, it is considered a reasonable and appropriate value, so the test is considered stable since the tests are not standardized. It is suitable as its stability coefficient is (0.67) or above (Cumming, 2013). To extract stability, the scale was re-applied to a sample of stability consisting of (40) male and female students, with a time interval of (14) days. It indicated that re-application of the scale to identify its stability should not exceed two weeks. Pearson correlation coefficient was calculated between the scores of the first and second applications, and the correlation coefficient was (0.91) for the scale. 0.70) or more, as this is a good indicator of the stability of tests in educational and psychological sciences (Mari & Maul, 2023).

This method is used because obtaining a high stability value indicates that the scores (the stability value) are less likely to be affected by random daily variables in the conditions of the subject or in the environment in which the test is conducted (Hanson et al. 2023). In general, internal consistency approaches allow each item to consider a single measurement and the test to
be viewed as a sequence of repeated measures (Ravid, 2020). Cronbach Alpha coefficient can range from 0.00 to 1.00 to indicate from very low to very high internal consistency. In addition, an Alpha of (0.65-0.80) is often considered adequate for a measure used in human dimension research (Mohan, 2023). Accordingly, the steps of the study (AI test and Productive skills) found high internal consistency with R-values of (0.67, and 0.89) respectively.

**Final Application**

The instruments in this study applied in different ways. The AI test and the productive skills test are administered to the sample of the survey in person and distributed in the classrooms. The participants have enough time to consider the things and submit their responses. Thus, these tests are applied by eliciting natural conversations from participants by talking about different topics. Because the application is time-consuming, the time allotted for each participant they were ranged from (15-20) minutes for answering each one of the instruments. Before applying tests, students informed that there will be such tests. They gave proper instructions and guidelines on the purpose of the test and the criteria according to which they will rate, like speaking rate, fluency, vocal confidence, prosody, facial expressions, etc. Moreover, the application of the tests takes about four successive weeks to complete, and the participant's performance is taped so that it can be listened repeatedly and accurately scored.

**Results**

The researcher took the answers of the research sample on the AI test and the productive skills test. The researcher used the Pearson correlation coefficient; the following are the findings of two tests (See Table One):

1. The value of the correlation coefficient between AI and speaking skills was (0.507), and to find out the significance of the relationship, the researcher used the t-test for the importance of the correlation coefficient. The calculated t-value reached (10,347), which is greater than the tabular value of (1.96) at significance level (0.05) and a degree of freedom (308), and this means that the relationship between AI and speaking skill is direct and statistically significant, that is, the higher the AI level of the research sample, the better their speaking skill.

2. The value of the correlation coefficient between AI and writing skills was (0.548), and to find out the importance of the relationship, the researcher used the t-test for 161 the importance of the correlation coefficient. The calculated t-value reached (11,417), which is greater than the tabular value of (1.96) at significance level (0.05) and a degree of freedom (308), and this means that the relationship between AI and writing skill is direct and statistically significant, that is, the higher the AI level of the research sample, the better their writing skill.

3. The value of the correlation coefficient between AI and productive skills was (0.554), and to find out the importance of the relationship, the researcher used the t-test for the importance of the correlation coefficient. The calculated t-value reached (11,542), which is greater than the tabular value of (1.96) at a significance level (0.05) and a degree of freedom (308), and this means that the relationship between AI and productive skills is direct and statistically
significant, that is, the higher the AI level of the research sample, the better their productive skills.

Table 1. The correlation between AI and productive skills

<table>
<thead>
<tr>
<th>Productive Skills</th>
<th>Sample Size</th>
<th>r- Value</th>
<th>t- Value</th>
<th>Significance 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking Skill</td>
<td>310</td>
<td>0.507</td>
<td>10.347</td>
<td>1.96 Significant</td>
</tr>
<tr>
<td>Writing Skill</td>
<td>310</td>
<td>0.548</td>
<td>11.417</td>
<td>1.96 Significant</td>
</tr>
<tr>
<td>The Total Skills</td>
<td>310</td>
<td>0.554</td>
<td>11.542</td>
<td>1.96 Significant</td>
</tr>
</tbody>
</table>

Results Related to the EFL Students' Level of AI & Productive Skills

As far as EFL students' level of AI is concerned, the results calculated show that the mean score is (17,626) with a standard deviation of (4,681). To identify the significance of the variance between the mean score and the theoretical mean, which is (17.5) at the level of importance (0.05), as the calculated t-value was (0.474), which is smaller than the tabular t-value of (1.96), with a degree of freedom (309), and the table two and figure one explain this.

Table 2. The mean score, standard deviation, and t-value of the AI test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>M</th>
<th>S.D</th>
<th>Theoretical Mean</th>
<th>t- Value</th>
<th>Significance (0.05)</th>
</tr>
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<tr>
<td>Academic Intelligence</td>
<td>310</td>
<td>17.626</td>
<td>4.681</td>
<td>17.5</td>
<td>0.474</td>
<td>1.96 significant</td>
</tr>
</tbody>
</table>

Figure 1. The mean score and theoretical mean of the AI test

To this goal, the researcher applied the productive skills test to the research sample consisting of (310) male and female students. The results showed that the arithmetic mean of the scores on the test amounted to (31,906) degrees, with a standard deviation of (7,462) degrees. It found that the difference was statistically significant at the level of significance (0.05), as the calculated t-value reached (3.319), which is smaller than the tabular t-value of (1.96), with a degree of freedom (309), Table and Figure two make this clear.
Table 3. *Mean score, standard deviation, t-value of the productive skills test*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Mean Score</th>
<th>S.D</th>
<th>Theoretical Mean</th>
<th>t-Value</th>
<th>Significance</th>
</tr>
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<tbody>
<tr>
<td>Productive Skills</td>
<td>310</td>
<td>31.906</td>
<td>7.462</td>
<td>30.5</td>
<td>3.319</td>
<td>1.96</td>
</tr>
</tbody>
</table>

*Figure 2. Mean score and theoretical mean of the productive skills test*

After that, the researcher carried out another procedure, which was to identify the skills (speaking and writing), each skill separately, and the results were shown in Table Four:

Table 4. *Mean score and theoretical mean of the speaking and writing skills test*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Mean Score</th>
<th>S.D</th>
<th>Theoretical Mean</th>
<th>t-Value</th>
<th>Significance</th>
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<tr>
<td>Speaking Skill</td>
<td>310</td>
<td>18.464</td>
<td>5.156</td>
<td>18</td>
<td>1,586</td>
<td>1.96</td>
</tr>
<tr>
<td>Writing Skill</td>
<td>310</td>
<td>13.442</td>
<td>2.781</td>
<td>12.5</td>
<td>5.963</td>
<td>1.96</td>
</tr>
</tbody>
</table>

The following appears from Table Four:

1. For the speaking skill, the arithmetic mean of the sample's answers was (18.464) with a standard deviation of (5.156) and a hypothetical mean of (18). The calculated T-value was (1,586), which is not statistically significant as it was smaller than the tabular value of (1.96), with a level significance of (0.05) and a degree of freedom (309), which means that the average is the degree of this skill.

2. For the writing skill, the arithmetic mean of the sample's responses was (13,442) with a standard deviation of (2,781) and a hypothetical mean of (12.5). The calculated T-value was (5.963), which is statistically significant as it was greater than the tabular value of (1.96), with...
The Correlation between EFL Learners' Academic Intelligence

Krebt

a level significance of (0.05) and a degree of freedom (309), which means that the reasonable is the degree of this skill.

Discussion

To answer the research question of what is the correlation between EFL Learners’ academic intelligence and the level of production skills? It was found correlations between variables; results show positive significant correlations between variables. First, results indicate a positive correlation between EFL students' level of AI and their use of productive skills. This positive correlation may be attributed to the fact that learning a language including all its skills is motivated by a variety of factors and goals that learners set for them to achieve better behavior and academic outcomes. Whenever the level of AI is high in the research sample, their speaking and writing skills improve. Thus, the null hypothesis, which ensures the absence of a relationship, is rejected, and the alternative one, which confirms the existence of a connection between the two variables, is accepted. In relation to the findings of the contribution of AI in interpreting the variation in productive skills for Iraqi EFL university students, results show that independent variables contribute to the variance. Therefore, a student's potential to study and acquire knowledge can be affected by the classroom environment, which includes the instructor, classmates, resources, and teaching strategies. AI can influence a student's interaction with the topic, participation in class discussions, and assignment completion. AI can be fostered in a positive and supportive environment.

Conclusion

This study investigated the correlation between EFL students’ AI and productive skills, the analysis of AI demonstrates that EFL learners are aware of their goals and reasons for engaging in tasks in the English language. Also, AI abilities can help EFL learners develop the skills and strategies necessary for academic success and professional development. Yet, it showed that studying critical thinking and analytical reasoning can help EFL learners understand complex literary texts and identify key concepts and arguments. By investigating EFL learners' level of productive skills, data analysis provides evidence that they can communicate satisfactorily, employing a variety of skills in communication. Concerning the productive skills tested in this study, EFL learners succeed in using speaking and writing skills which constitute a large amount of human communication. The use of productive skills can improve EFL's ability to convey their thoughts and ideas clearly and effectively in various settings, such as in academic, professional, and social contexts.

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Students’ Attitudes toward Using Chatbot in EFL Learning

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Abstract
The current study is an exploratory experiment on the attitudes of English as a Foreign Language students toward using chatbots in their learning. The study sheds light on the recent technical tools for language learning and finds out to what extent chatbots are effective in acquiring language skills, especially their usability, precision, assessment, and strengths. To answer the study's main question, the researchers examined 64 English foreign language first-year secondary Egyptian students' responses to a 20-item questionnaire through a survey research approach. The researchers chose students through purposive sampling. They used descriptive statistics to assess the data from the Likert-scaled items. The findings indicated that chatbots appeal to language learners because learners can utilize them without the help of the instructors, which in turn encourages them to become autonomous learners. They also believed that the Chatbot might simulate an interaction cycle so they could practice the target language. Additionally, the students felt that the Chatbot boosted their enthusiasm and confidence, which ultimately helped them feel active and more comfortable. Consequently, the data provide insightful information about properly integrating chatbots in English language learning inside and outside the classroom while considering its defects.

Keywords: Attitudes, EFL Students, Chatbot, Artificial Intelligence, survey

DOI: https://dx.doi.org/10.24093/awej/vol14no3.2
Introduction

Technological gadgets have been widely used nowadays, not only for daily communication but mainly for learning purposes. They have become the accepted norm for educational communities. Therefore, Interactive technologies must be upsurgd for learning and promoting students' language skills, especially for English as a Foreign Language (EFL). Technology does more than disseminate information; it also provides the tools for active learning, motivation, and student involvement (Mahmoud, 2022). Its integration can be recognized in all stages of learning, from elementary school to pre-university education (Papadakis & Kalogiannakis, 2019). Various scholars concerning mobile tools, Pham et al. (2018), Viberg and Gronlund (2012), Lei et al. (2022), and Aliakbari and Mardani (2022) have confirmed that Mobile-Based Applications (MBA) enrich EFL learners' motivation for accurate use of language, for example, spending their leisure hours learning more vocabulary, participating in classroom activities, making conversations with English native speakers, and give a chance to continuous access to valuable materials and resources (e.g., free teaching means).

Moreover, Hill et al. (2015) emphasized that smartphone, social media, and Artificial Intelligence (AI) technology are expanding quickly, making it difficult for educational professionals to use these tools to create cutting-edge learning materials. Artificial intelligence has been heavily explored to produce applications in recent decades, and its products are not used in practically every part of our lives. Computer-Mediated Communication (CMC) refers to this conversation that occurs virtually rather than in person.

Among the fastest-growing areas is the utilization of conversational appliances or chatbots. This progress is due to the significant expansions in (AI) uses and applications. Using natural language patterns, Kumar (2021) referred to a chatbot as a computer program that can simulate human-like conversations in text messages, audio communications, or a combination of both. Abu Shawar (2017) defined Chatbot as “a conversational software agent, which interacts with users using natural language” p. 615.

Regarding the benefits of the interactive conversational program (Chatbot), Haristiani (2019) stated that Chatbot has given foreign language learners a way to practice their language skills to discuss with people. Kim (2020) looked into the efficacy of various chatbots regarding vocabulary and the four language skills (listening, speaking, writing, and reading). She noted that chatbots can be helpful tools for allowing EFL students to experience real, authentic input through textual and auditory methods. In addition, Kim (2016) highlighted the positive impacts of using chatbots to converse with EFL students at all competence levels –beginner, intermediate, and advanced- on their ability to speak the target language. Chatbots’ primary goal is to simulate human communication by tricking users into thinking they are talking to real people while, in reality, they are conversing with robots.

However, research on using chatbots in English language instruction has concentrated on three fields. The first field concerns the benefits of chatbots that may be included in the language education process. Wahyuni and Riau (2022) investigated that incorporating chatbots into the classroom is a different approach to dealing with the learners' dearth of English-language interactions in both the classroom and outside of it. They summarized the Chatbot's functions in language learning: boosting students' self-confidence, enhancing particular learning objectives, giving specific feedback, and allowing enough space and time for learning. According to Vázquez et al. (2021), since teaching is the process of importing knowledge through efficient communication, a mobile chatbot's ubiquitous nature might potentially improve the learning
Students’ Attitudes toward Using Chatbot in EFL Learning

Mohamed & Alian

process. Nghi et al. (2019) also examined how using chatbots in the classroom gives learners a unique learning experience.

The following range of concern is the perceptions of using the interactive conversational program (Chatbot) in language learning, whether from the teachers’ or students' point of view. Yang (2022) explored the ideas of 28 aspiring teachers regarding the pedagogical benefits and possible advantages of using chatbots in English training. Another study showed that most learners thought using AI chatbot tools was crucial to their education. Additionally, the AI chatbot makes learning exciting and enjoyable (Nghi et al., 2019). In this area, Chuah and Kabilan (2021) investigated an exploratory study that offered information on how ESL teachers felt about using chatbots to teach English in a mobile learning environment. The results have demonstrated the readiness of ESL teachers to use mobile tools to improve the learning process.

Finally, the third field is related to the effectiveness of integrating chatbots in EFL classes. The Chatbot-Human Interaction Satisfaction Model (CHISM), an ad hoc model created by Belda-Medina and Calvo-Ferrer (2022), was used by teacher candidates to assess various linguistic and technological features of the three conversational agents. The authors also developed a learning module about chatbots and language learning. The findings demonstrated that using chatbots to learn languages is a positive example, especially regarding attitudes and Perceived ease of Use (PeU). However, the results for Behavioral Intention (BI) were more reasonable. Moreover, Han (2020) stated that AI chatbot could effectively improve Korean EFL middle school students' speaking abilities, suggesting that EFL teachers should try integrating Chatbot inside their classrooms.

Similarly, Kim (2019), who divided Korean college students into a human group and a chat group, demonstrated the superior impacts of chatbot use on enhancing grammatical competency. In light of the previous reviews, this study aims to investigate whether a chatbot is helpful for EFL students in their learning process.

Therefore, the current study examines students' attitudes toward using chatbots in language learning, especially for pre-university (secondary school) students in Egypt, to fill the research gap as it has only been investigated for university students. It attracts the learners' and teachers' attention to modern technological tools and their benefits in learning. It investigated chatbots' usability, precision, feedback, and strengths by answering a questionnaire. The current research answers the following central question to accomplish the study objectives:

What are the EFL students’ attitudes toward using Chatbot in English language learning?

This main question was divided into the following research sub-questions:

i. What are the EFL students’ attitudes toward the Chatbot’s usability in English language learning?

ii. What are the EFL students' attitudes toward the language precision of the Chatbot through learning English?

iii. What are the EFL students' attitudes toward the chatbots' assessment and feedback in English language learning?

iv. What are the EFL students' attitudes toward the strengths of the Chatbot through learning the English language?

The following section of the paper covers the theoretical underpinnings of this study. It is done mainly to the rationale for using chatbots to improve EFL learning. The description of the techniques used is then clarified. The next stage is to present the findings and provide a thorough
Students’ Attitudes toward Using Chatbot in EFL Learning

Mohamed & Alian

discussion by answering the research questions in addition to the research conclusion.

**Literature Review**

Chatbots use natural language processing to simulate human-like conversation. Kim, Cha, and Kim (2019) clarified that Chatbots offer a similar communication experience as one might experience communicating with a human user. Because their main aim is to mimic human conversations, chatbots imitate human speech patterns and convince users that they are talking to an actual human while talking to machines. Kuhail, Alturki, and Alramlawi (2022) stated that applying text, speech, graphics, haptics, gestures, and other modes of communication to assist learners in performing educational tasks achieved chatbot interaction. The interactive conversational program (Chatbot) is exciting and appealing for language learners. Once communicating with chatbots rather than humans, learners tend to be more at ease and less worried (Kim, 2017). Previous research investigated using Chatbot as a helpful and valuable tool in an EFL environment (Bibauw et al., 2022; Fryer et al., 2020; Fryer & Nakao, 2009; Haristiani, 2019; Kim et al., 2021; Klimova & Seraj, 2023; and Nghi et al., 2019). Employing chatbots also improves EFL learners' grammar skills, as Kim (2019) stated. Abu Shawar (2017) asserted that employing chatbots as conversational partners enhances learning outcomes. In other studies, Neo (2022) concentrated on improving the online study experience. The impact of the Chatbot on critical thinking is reviewed by Goda et al. (2014) and speaking skills performance by Mahmoud (2022).

There have already been several reviews of conversational agents in language acquisition. Mageira et al. (2022) designed an AI chatbot to teach high school students cultural content in a foreign language. Greece’s public and private language schools have evaluated the program. The researchers claim that simultaneous learning of foreign languages and cultural material is ideal for AI chatbot technology. In addition to the benefits already discussed, Chatbot supports several efficient teaching methods. Lin and Hwang (2018) stated that although a flipped classroom encourages students to practice what they have learned, it may also be necessary to give appropriate technology and mentoring tools to help students organize the material and improve their speaking capabilities. Similarly, Lin and Mubarok (2021) used the mind map-guided AI chatbot in a university-based flipped English-speaking classroom to support the students' speaking performance and interactions. As claimed by the authors, the mind map-guided Chatbot coordinated human-robot interaction and improved students' English-speaking abilities.

Regarding language learning, Kim et al. (2019) presented many forms of intelligent chatbots (e.g., Eliza, Alice, Clever Bot, Elbot Talk to Eve). The authors concluded that chatbots positively affected students' communication abilities by increasing the number of interactions, i.e., raising students' motivation and increasing their interest in learning, particularly communicative ability. Kim (2016) investigated the effects of two types of voice chat: voice chats with peers and chatbots. The study enlisted one hundred eighty-one college students from Korea to participate in an English-speaking program to improve their speaking skills. According to the study, speaking proficiency improved in all chat situations. The author argued that voice chat allows EFL students to practice speaking, fosters positive views of English language instruction, and lessens unfavorable emotions.

The use of chatbots for language acquisition is currently constrained and has significant challenges despite the benefits described above. Some researchers have illustrated these challenges. For instance, Kim et al. (2019) noted that few chatbot programs enable direct voice-
recognition system interaction between chatbots and people. They also looked into chatbot applications, which are a limited usage of AI in education. Additionally, another study investigated other issues, like users having to keep asking the same question since they needed help remembering the previous interactions (Roos, 2018).

By using the chatbot program on eight Chinese EFL learners separated into two groups, Yin and Satar (2020) demonstrated another limitation concerning the learners' language proficiency (lower- and higher-level learners). The findings showed that high language-level learners voiced unhappiness with chatbots, whereas most participants with insufficient language skills would gain the most from interactions with educational agents. Wang and Petrina (2013) also utilized a chatbot named Lucy to help students learn the language. Lucy's features include vocabulary and grammar, matching, repeating for appropriate feedback, and appropriate student responses. However, there were certain limitations, such as the need for more contextualized cultural knowledge and continuous feedback that might have catered to the needs of specific learners.

**Method**

The researchers used an exploratory survey to investigate learners' views toward chatbots as helping tools for their learning. Based on the selected questionnaire framework, a 5-point Likert-scale online survey containing (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, and (5) strongly agree items was created. The questionnaire included a twenty-item Likert scale. The four primary categories were usability, language precision, assessment and feedback, and strengths. Five items were dedicated to usability to determine students' opinions toward chatbots' easiness and accessibility. Another five items were assigned to the language precision dimension to assess students' views toward chatbots' potential usage in improving vocabulary, grammar, and language skills. The assessment and feedback dimension examined students' perceptions of chatbots' capacity to obtain real-time feedback (n = 3). Finally, the key strengths of chatbot items (n = 7) sought to determine the benefits of chatbots.

**Participants**

A sample of 64 EFL first-year secondary school students at Zagazig, Sharkia governorate in Egypt, participated in the study from March 25 to May 25, 2022. After obtaining their consent to participate in the study, the researchers chose two male and two female classes from two different schools. They were a homogeneous group, i.e., in their age, learning abilities, and social status. After being introduced to and trained to use the chatbots' tools, only some of the group responded to the given questionnaire as their teachers sent it to 123 students, and only 64 of them successfully responded. These responses represented about 52% of the total number of students. The participants were 21% for male and 43% female. At the beginning of the experiment, the participants received training on how to utilize the chatbot applications. The teachers performed this procedure to ensure that the students were comfortable using the Chatbot and had enough experience to provide the necessary information correctly and meaningfully. It was also done for the obtained information validity and any further analysis.

**Research Tools**

1. A twenty-item Likert scale was created to examine learners' perceptions toward usability, language precision, assessment and feedback, and key strengths as they were asked to tick
one of the five Likert scale options: (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, and (5) strongly agree (Table two, appendix one).

The questionnaire was sent to eight TEFL professors and instructors to test its validity, modify any required amendments, or add suggestions. They approved the questionnaire with a few modifications, which were considered. The Alpha Cronbach scale was used to test the questionnaire’s reliability through SPSS software (Table one).

<table>
<thead>
<tr>
<th>Reliability scale</th>
<th>Number of items</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Cronbach</td>
<td>The whole questionnaire (20 items)</td>
<td>0.94</td>
</tr>
</tbody>
</table>

2. Two different chatbots (Duolingo and Falou) in which students practiced different activities about vocabulary, grammar, pronunciation, guessing word meanings, and listening.

**Research Procedures**

The researchers assigned the first two sessions to discover the main features and usability of the two chatbots, Duolingo and Falou. After students became acquainted with the applications, some tasks were required through the following phases. Firstly, teachers guided them to practice in class and regularly continue their lessons at home. Through their training, they experienced different activities such as learning vocabulary through choosing the appropriate meaning from various options, detecting the missed words in a listening exercise, pronouncing the given sentences orally, matching the word meanings with their corresponding Arabic meanings, rearranging scattered words to create meaningful sentences with the correct grammar form, and writing the right correspondent English word meaning of an Arabic sentence. Secondly, after completing the practice and attending class, students can reinforce what they have learned by writing a vocabulary list and separate sentences on the topic they have practiced and speaking about it orally. In Duolingo, for example, they learned topics about health, sports, politics, work, study, family, and home. So, they were asked to write a vocabulary list and speak about these topics, Figures (1) & (2), (3) & (4).

![Duolingo translation activity](image1.png)

![Figure 1. Duolingo translation activity](image2.png)

![Duolingo speaking activity](image3.png)

![Figure 2. Duolingo speaking activity](image4.png)
Results

In this section, the researchers tackled the results acquired from the experiment based on the research questions. The results are debated in the light of literature as well. Table two (Appendix One) represents the mean scores of the total items and each category related to EFL students’ attitudes toward employing chatbots.

Discussion

To answer the first sub-question, it is evident that for the interactive conversational programs (Duolingo and Falou chatbots) usability, students declared that they found them accessible and easy to use (the overall mean=3.83), specifically the items of chatbots’ easiness, their friendly
interface and being understandable as they received the highest means (4.18, 3.87, and 3.75); this reflects that their impressive design and effects encourage students' involvement and interactive use. This result aligns with other research results (Kim, 2016; Mahmoud, 2022), which showed that one of the chatbots' benefits is their accessibility by giving students ample opportunities to practice their target language. In contrast, the loading process and their compatibility with the different operating systems received the lowest means (3.71 and 3.65), which may return to students' internet connection speed and quality and their used technological devices.

Regarding the second sub-question concerning chatbots' language precision, most students agreed that the language produced is highly accurate (mean = 3.83). Good use of words, phrases, and vocabulary, correct language use, improving English language skills, and good grammar registered a high percentage (4.10, 3.87, 3.84, 3.81). Students gained different vocabulary through using chatbots. They managed to use language appropriately, and their grammatical usage improved. Other research results and reviews on the benefits of dialogical systems echoed the same results (Bibauw et al., 2022; Kim, 2018; Kim et al. (2019); and Kim, 2019), which revealed that chatbots enable students to develop vocabulary effectively and indicate their beneficial effects through improving English grammar skills. They added that chatbots could help users to learn and practice English. It allows them to chat, study new words, learn grammar, and play language games. However, the item of simulating accurate language use received the lowest mean (3.60); this can be attributed to the need for more updates and enhancement as chatbots are still robots that lack personal communication and real human-mind interaction. Chuah and Kabilan (2021) indicated that ESL teachers were optimistic about using chatbots but remained reserved about their accuracy.

About the chatbots' assessment and feedback (sub-question 3), it is clear that Duolingo and Falou chatbots correct students' errors immediately (mean = 4.00) with spelling and grammatical mistakes and allow them to do self-checking (mean = 3.82) and deliver immediate feedback (mean = 3.4), they assist them through providing the right option for what they have written regarding spelling check and the correct grammatical structure and giving them time to recheck what they have written or answered. This result is consistent with previous ones, such as Kim's (2019), which proved that chatbots could provide quick and effective feedback on students' spelling and grammar.

As for the strengths and the positive points of Duolingo and Falou chatbots (sub-question 4), students' responses revealed that these two chatbots are valuable resources for learning (M = 4.17), enjoyable (M = 4.06) and reduce their stress level and anxiety (M = 4.04), build up their self-confidence (M = 3.90), motivate them to learn (M = 3.81), and match their preferred language approach (M = 3.09). These merits were proved vividly in various pieces of research (Fryer & Carpenter, 2006; Ayedoun et al., 2015; Yin & Satar, 2020; Mahmoud, 2022), which pinpointed that chatting with chatbots offers a less threatening and more relaxed environment. They also provide motivational support to participate in communication, reduce students' anxiety, and raise their self-confidence in English communication. On the other hand, chatbots' understanding of different topics and speakers' dialects received the lowest mean (M = 2.21) as students revealed that Andy and Mondly chatbots lack human knowledge and interaction as they are automated machines that lack spontaneity and clear-cut and satisfied answers. One limitation of a chatbot is its knowledge base, according to Abu Shawar (2017).
Conclusion

The current research tackles students' attitudes toward using chatbots in EFL learning. Through exploring the four main dimensions of chatbots, i.e., usability, precision, feedback, and strengths, chatbots have long-term benefits such as being accessible, easy to use, accurate, providing a wide variety of vocabulary, correct grammar usage, and improving overall English skills. Despite these merits, some other defects should be highly considered by both learners and teachers, such as chatbots' lack of understanding of speakers' different topics and dialects; therefore, teachers should repeatedly recheck their responses with the appropriate feedback to students. They sometimes seem repetitive and mechanical, which seems unnatural and unspontaneous compared to human mind responses.

At the beginning of the training, a large number of students did not know such technical tools; therefore, it is of the utmost importance to introduce, train, and motivate them to become acquainted with these tools and their benefits through learning English, primarily because they can be used at anytime and anyplace away from the formal learning environment and they motivate self-learning. In addition, they provide real-life situations and experiences and train students on various language skills: writing, spelling, pronunciation, grammar, and speaking. Through practice, students feel less tension and more relaxed in a virtual environment away from their teachers or peers. Hence, they feel free and not embarrassed, especially when they commit mistakes or need repetition.

Understanding AI tools' advantages, risks, and responsible usage is crucial for EFL teaching and learning. Researchers must address technical and practical issues while aligning them with teaching principles. Teachers should best use these artificial intelligence tools to provide personalized and adaptive learning experiences based on students' needs, preferences, and progress, offering feedback, direction, scaffolding, and assessment.

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References


APPENDIX ONE

Table (2) Mean scores for items concerning learners’ views on the interactive conversational program (chatbot) integration

<table>
<thead>
<tr>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
<th>Mean</th>
<th>St. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Chatbots can be loaded easily.</td>
<td>F</td>
<td>13</td>
<td>28</td>
<td>17</td>
<td>4</td>
<td>2</td>
<td>3.71</td>
<td>.967</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Chatbots are an easy technology.</td>
<td>F</td>
<td>30</td>
<td>22</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>4.18</td>
<td>.973</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Chatbots have a friendly interface.</td>
<td>F</td>
<td>15</td>
<td>32</td>
<td>13</td>
<td>2</td>
<td>2</td>
<td>3.87</td>
<td>.917</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Chatbot software is compatible with different operating systems.</td>
<td>F</td>
<td>8</td>
<td>31</td>
<td>20</td>
<td>5</td>
<td>0</td>
<td>3.65</td>
<td>.801</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Chatbots are easy to understand.</td>
<td>F</td>
<td>10</td>
<td>35</td>
<td>12</td>
<td>7</td>
<td>0</td>
<td>3.75</td>
<td>.854</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Usability Dimension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.83</td>
<td>.858</td>
<td></td>
</tr>
<tr>
<td>6. Chatbots use words, phrases, and vocabulary well.</td>
<td>F</td>
<td>18</td>
<td>38</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>4.10</td>
<td>.737</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Chatbots demonstrate adequate use of grammar.</td>
<td>F</td>
<td>13</td>
<td>32</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td>3.81</td>
<td>.888</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Chatbots help improve English skills. & F & 14 & 35 & 8 & 5 & 2 & 3.84 & .963 & 3 \\
& % & 21.9 & 54.7 & 12.5 & 7.8 & 3.1 & & & \\
9. Chatbots present correct language use. & F & 12 & 38 & 9 & 4 & 1 & 3.87 & .845 & 2 \\
& % & 18.8 & 59.4 & 14.1 & 6.3 & 1.6 & & & \\
10. Chatbots simulate accurate language use. & F & 13 & 24 & 19 & 5 & 3 & 3.60 & 1.048 & 5 \\
& % & 20.3 & 37.5 & 29.7 & 7.8 & 4.7 & & & \\

| The Language Precision Dimension | | 3.85 | .863 |
|----------------------------------|-----------------------------|

& % & 25.0 & 45.3 & 20.3 & 6.3 & 3.1 & & & \\
12. Chatbots assist in delivering immediate feedback. & F & 12 & 32 & 9 & 7 & 4 & 3.64 & 1.10 & 3 \\
& % & 18.8 & 50.0 & 14.1 & 10.9 & 6.3 & & & \\
13. Chatbots correct mistakes immediately. & F & 18 & 30 & 14 & 2 & 0 & 4.00 & .796 & 1 \\
& % & 28.1 & 46.9 & 21.9 & 3.1 & & & & \\

| Assessment and Feedback Dimension | | 3.82 | .935 |
|-----------------------------------|-----------------------------|

14. Chatbots are enjoyable for learning English. & F & 22 & 27 & 12 & 3 & 0 & 4.06 & .852 & 2 \\
& % & 34.4 & 42.2 & 18.8 & 4.7 & & & & \\
15. Chatbots motivate to learn more. & F & 14 & 33 & 10 & 5 & 2 & 3.81 & .973 & 5 \\
& % & % & % & % & & & & & \\
16- Chatbots can catch different speakers’ dialects quickly and understand various topics & F & 4 & 4 & 9 & 32 & 15 & 2.21 & 1.07 & 7 \\
& % & 6.3 & 6.3 & 14.1 & 50.0 & 23.4 & & & \\
7- Chatbots build up self-confidence. & F & 16 & 32 & 11 & 4 & 1 & 3.90 & .903 & 4 \\
& % & 25.0 & 50.0 & 17.2 & 6.3 & 1.6 & & & \\
18. Chatbots are a valuable and helpful resource for English. & F & 22 & 34 & 5 & 3 & 0 & 4.17 & .767 & 1 \\
& % & 34.4 & 53.1 & 7.8 & 4.7 & 0% & & & \\
& % & 7.8 & 39.1 & 20.3 & 20.3 & 12.5 & & & \\
20. Chatbots reduce anxiety and stress levels by learning English. & F & 19 & 35 & 7 & 3 & & 4.04 & .915 & 3 \\
& % & 29.7 & 54.7 & 10.9 & 4.7 & & & & \\

| The key Strengths Dimension | | 3.61 | .889 |
Investigating Bandura's Processes of Observational Learning Implementations from EFL Faculty Perspective at Umm Al-Qura University English Language Centre

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Abstract  
The present study attempts to investigate the implementations of Bandura's processes of observational learning from an EFL faculty perspective at Umm Al-Qura University English Language Centre. As a prominent skill-learning theory in psychology and education, Bandura's social learning theory introduced elemental cognitive stages known as observational learning processes that are necessary for acquiring any skill. Knowledge of these processes provides EFL/ESL teachers with theoretical principles to facilitate teaching and learning the complex skills of the English language. The study aims to identify the EFL faculty awareness level of Bandura's observational learning processes and assess the extent to which their teaching practices endorse observational learning. Also, to examine the relationship between EFL faculty awareness and practices. The study participants consisted of (41) EFL faculty members during the academic year 2021-2022. The researchers developed a web-based survey to collect the information and used descriptive statistics for analysis. The findings revealed that the faculty members' overall awareness and practices levels of Bandura's observational learning are high. However, the results indicated the existence of a misconception regarding the concept of modeling and observation held by some of the faculty members. Also, results indicated a significant relationship at (0.05) level between EFL faculty awareness and practices suggesting the applicability of Bandura's observational learning in the EFL context. The study provides substantial insights for EFL/ESL teachers and researchers regarding the importance of observational learning in teaching and developing language skills. The research concludes with the need for raising awareness procedures and suggestions for future research.

Keywords: Bandura's processes, EFL faculty members, EFL teaching and learning, language skills, observational learning, Social Learning Theory

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Introduction

Learning a second language is a demanding task that requires diligence, imitation, practice, and lots of attention. Nevertheless, teaching a language is not an easier task, for it takes resilient comprehension and application of varying principles related to language learning processes and conditions. According to Brown (2007), teachers' understanding of the appropriate conditions of how learners learn languages determines techniques, strategies, and methods implemented in classrooms. That is to say, teachers' perceptions and knowledge contribute indubitably to the success of language teaching and learning. Moreover, Language teachers are one of the fundamental resources of language input because their speech is redundant with different styles and expressions that learners try to imitate and acquire. Harmer (2007) notes that learners are provided with various models to observe and learn the target language from through multimedia materials or the teacher. In other words, observation and modeling are essential at some stages for facilitating language learning.

Many scholars over the years attempted to understand the nature of human learning, its cognitive processes, and optimal conditions. Among those scholars is Albert Bandura, an influential psychologist, who stated in his Social Learning Theory (SLT) that individuals develop complex skills, to a certain extent, through observation and modeling. According to Bandura (1977), learning would be challenging and even dangerous if people relied on their own experiences without observing others to learn from them. Many well-distinguished language teaching methods established observation and imitation as primary techniques because observation and imitation are inseparable parts of acquiring language as a complex skill. Since there is not one fixed teaching method or strategy to address learners' needs in all language learning situations, teachers mostly need exposure to various pedagogical and theoretical principles that would help them build their philosophy in addressing EFL/ESL divergent problems (Brown, 2007). Furthermore, language acquisition is a tremendously complex phenomenon; hence the proliferation of theories to explain the vast areas relating to it is needed, especially ones that tackle cognition, social effects, and individual will (Jordan, 2004).

Therefore, this study aims to investigate implementations of Bandura's observational learning processes from an EFL faculty perspective. The current research findings would be of great value for the development of literature regarding the applicability of Bandura's observational learning in the EFL teaching and learning field by displaying the EFL faculty perspective towards it. In addition, the study relates Bandura's processes of observational learning to EFL/ESL literature, thereby establishing a possible blueprint for future classroom application research. Moreover, the study provides EFL teachers with insights from a social-cognitive perspective to maximize the efficiency of language teaching and learning in classrooms.

The research aims to achieve the following objectives:

1- To provide information regarding the extent to which EFL faculty members at UQUELCare aware of the underlying principles of Bandura's processes of observational learning.

2- To indicate the extent to which EFL faculty members at UQUELC incorporate the underlying principles of Bandura's processes of observational learning in classrooms.

3- To examine the relationship between the awareness level of Bandura's processes of observational learning and the practices level of Bandura's processes of observational learning among EFL faculty at UQUELC.

In light of the objectives above, the research at hand elicits answers to the following questions:
1- What is the level of awareness of Bandura's processes of observational learning among EFL faculty at UQUELC?

2- To what extent do EFL faculty teaching practices endorse Bandura's processes of observational learning at UQUELC?

3- What is the relationship between the awareness level of Bandura's processes of observational learning and the practice level of Bandura's processes of observational learning among EFL faculty at UQUELC?

**Literature Review**

**Bandura's Social Learning Theory**

Over the past years, many debates heated among scholars about the nature of language and language learning. One of the distinguished controversies was between the behaviorist B.F. Skinner and the linguist Noam Chomsky. Skinner claimed that language learning is an interrelation of environmental cause and effect; on the other hand, Chomsky asserted that children could acquire language through observation alone and that environmental effect is not crucial (Whitehurst & DeBaryshe, 1989). In other words, the environment only triggers an innate faculty, the Language Acquisition Device (LAD), which allows children to produce novel linguistic patterns not found in the input of exposure and enables them to become proficient speakers and critical judges of their language. Endorsing both Skinner's and Chomsky's notions, Bandura's social learning theory emphasizes the role of observation and imitation in social environments and that learned behaviors and skills are not solely an outcome of reinforcement or punishments, but rather individuals' mental states and cognitive processes contribute substantially to learning (Bandura, 1986). SLT is often regarded as an intermediate between behavioristic and cognitive approaches because it credits the contribution of mental functions such as attention and memory as well as environmental factors such as incentives in learning (Nabavi, 2012). The theory places significant emphasis on observers' cognitive factors over environmental ones (Ahn, Hu, & Vega, 2020). According to Lightbown and Spada (2013), first and second-language learners select words they imitate and produce them in a way that goes beyond what they have heard or observed. Such divergent creativity is confirmed to indicate learners' developing cognitive systems. By the same token, Bandura (1977) states that individuals are not merely imitators of any behavior in their surroundings. Instead, there are cognitive processes that govern their selection and imitation. Also, individuals' imitations go beyond what they have observed in creative and distinctive ways. In general, social learning is often disparaged as a passive process, yet it is a powerful learning tool that involves complex cognitive capacities facilitated by knowledgeable teachers (Gweon, 2021).

**Processes of Observational Learning and Language Teaching and Learning**

Observational learning consists of four cognitive processes:

**Attention**

Variables such as frequency, duration, incentives, complexity, mental states, and abilities govern individuals' attention (Bandura, 1977). Keeping with Bandura's statement, to learn a language skill or component, students need to attend to its remarkable lexical, phonetic, syntactic, or pragmatic features. Furthermore, the language content must be of value and matches learners' interests and levels to some extent. According to Schmidt (2001), attention is mandatory for language learning development, yet it is limited in capacity. Therefore, effective EFL teachers should provide learners with necessary instructions and models of tasks and exercises to avoid
confusion and ensure their understanding and attainment of the linguistic task (Harmer, 2007). In addition, teachers should maintain learners' engagement and progress by presenting different rewards, such as explaining the general benefits of learning the English language (Brown, 2000).

**Retention**

For individuals to remember any observed behavior, mental or motor rehearsal is necessary for remodeling when the imitated model is absent (Bandura, 1977). Teachers could facilitate this stage by helping learners apply learning strategies (Artino Jr, 2007). EFL teachers need to devote time to learning strategies to strengthen learners' retrieval of the language they intend to use. Some of the practical language learning strategies are memory strategies, namely keywords and mnemonics (Al-Zahrani, 2011); cognitive strategies, including practicing rehearsal and note-taking (Farzam, 2017; Marefat & Shirazi, 2003); and metacognitive strategies, such as linking new materials with previous knowledge and planning for tasks (Farzam, 2017; Marefat & Shirazi, 2003).

**Reproduction**

The observer performs based on the attended and remembered behavioral model at this stage. If the observer is physically and mentally adequate but unable to perform, then the subskills for the complex performance must be improved by practice and remodeling (Bandura, 1977). The role of practice in EFL teaching classrooms is regaining an increased interest in a way that permits learners to practice language meaningfully (actual needs and wants), not mechanically (Lightbown & Spada, 2013). Learners may not produce accurate performance from the first trials or in early classes. Therefore, teachers need to provide them with several opportunities to demonstrate their knowledge of language skills and components. More importantly, teachers' feedback on what learners are missing will help maintain their progress (Klimova, 2015).

**Motivation**

Observation and modeling are affected by three motivators: extrinsic, vicarious, and intrinsic (Bandura, 1977). Extrinsic motivators are related to direct rewards and encouragement. While performing based on observing others rewarded serves as a vicarious motivator. Performances for task value or self-satisfaction are associated with intrinsic motivators. In the EFL context, motivation is a critical factor in language learning success that teachers need to sustain and foster. Dörnyei (2001) regards teachers as one of the fundamental elements in generating motivation besides classroom atmosphere and learners' cooperation. Showing enthusiasm, giving praise, presenting rewards, encouraging risk-taking, emphasizing group work, and providing challenging but achievable goals to increase their value are all part of the teachers' role in inspiring students to learn (Brown, 2000; Dörnyei, 2001). These classroom behaviors relate to Bandura's three types of motivation that govern observational learning.

**Role of Observation in EFL/ESL Classrooms**

There is a lack of solid literature and research regarding Bandura's processes of observational learning in EFL/ESL contexts. Nonetheless, it is worth noting that some of the popular English language teaching methods highlighted the importance of observation and modeling, precisely, the Natural Approach, the Total Physical Response (TPR), and Task-based Instruction. The comprehension approaches, such as the Natural Approach and Total Physical
Response, derived their principles from research and theory of first language acquisition by assimilating the stages of second language acquisition and learning to the way children develop their first language (Larsen-Freeman, 2000). In these two methods, learners keep observing how language is used by their teacher and classmates (models) until they develop adequate comprehension (input) enabling them to use the target language when they are ready. Another method that recognizes the role of observation is Task-based instruction. Task-based instruction stands for the idea that learners learn a language effectively while involved in completing a task. In a pre-task stage, the teacher could play a model recording of other learners working on similar tasks while giving clear instructions and recalling the proper language required for task completion (Willis & Willis, 1988, as cited in Skehan, 1996). These influential methods acknowledged the profound role of observation and modeling in developing learners' language.

**Related Studies**

The study of Ilmiani, Wahdah, and Mubarak (2021) applied Bandura's Social Cognitive Theory to describe the process of learning Arabic speaking skills. The researchers collected data by means of observation, interviews, and documentation from students enrolled in the Arabic language education study program. Students were asked to imitate speech as shown in videos. The study revealed that for acquiring Arabic speaking skills using social cognitive theory, four basic activities were required: observing pronunciation, remembering word sounding, imitating sentences, and applying speaking abilities within conversations. Also, the researchers indicated that teaching students according to these stages allowed them to explore their speaking abilities.

Alshobramy (2019) conducted a study aimed to investigate the effectiveness of implementing Bandura's social learning theory in English classrooms, particularly, in developing speaking skills. After applying principles of observational learning in English classes, an opinion-based and closed-item questionnaire was administered to 100 EFL students in a secondary school to elicit information about their attitudes and beliefs. Results showed that SLT could help EFL students speak English fluently and confidently. In addition, its principles could foster EFL students' attentiveness, creativity, and ability to learn English.

Using one-to-one semi-structured interviews, the study of Horsburgh and Ippolito (2018) aimed to investigate the process of learning from role models in clinical settings. The findings revealed that Bandura's four processes of observational learning helped students learn and use clinical language effectively. Surprisingly, clinical teachers declared that they were rarely directed with feedback on the effect of their role modeling, suggesting that clinical teachers need to develop their skills regarding Bandura's observational learning (Horsburgh & Ippolito, 2018).

The study of Samsudin, Shamsudin, and Arif (2017) was done to investigate the impact of Bandura's social learning theory in developing students' ability to write academic texts. Their experimental study was conducted on 100 EFL university students. Results of the study showed that observational learning of structural and linguistic features of texts presented by teachers enhanced students' awareness, positive attitude, and ability in academic writing for different purposes.

These studies asserted the effectiveness of Bandura's SLT, mainly observational learning, in acquiring general notional language, as indicated by Ilmiani et al. (2021), Alshobramy (2019), and Samsudin et al. (2017), also, in developing technical contextual language as shown by Horsburgh and Ippolito (2018). Nevertheless, these studies do not provide information regarding using principles of Bandura's observational learning from the EFL faculty perspective and whether
they are relatable to their language classes and EFL context in general. Acknowledging that there
is an evident dearth of research dealing with Bandura's SLT in the field of ESL/EFL, this study is
a preliminary step towards filling this knowledge gap to provide practitioners and researchers with
insights that would facilitate language teaching and learning as well opening doors for future
research.

Methods
This study employed a quantitative method design of data collection. The researchers
designed a web-based questionnaire to collect data on whether EFL faculty members are aware of
and apply the principles of Bandura's observational learning processes in their classrooms. The
researchers used descriptive statistics for analyzing questionnaire data.

Participants
The study population included all (100) EFL faculty members at Umm Al-Qura University
English Language Centre (UQUELC), during the academic year 2021-2022. The sample was
chosen randomly by using a stratified random sampling method consisting of (41) EFL faculty (27
females & 14 males). The faculty members ranged in their teaching experience from less than five
years and more. Also, their academic rank ranged from teacher, lecturer, to assistant professor and
over. Ethical consent was obtained from the university research unit and participants before
proceeding to provide answers.

Demographic Information
Gender
The majority of EFL faculty (27) from female while the total number of male members
was (14). The details of the sample distribution according to gender are given in Table One.

Table 1. The sample distribution according to gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>14</td>
<td>34.1%</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>65.9%</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table One shows the distribution according to gender as follows, (34.1%) of the sample is male
members, while (65.9%) is female members. That is illustrated in Figure One.

Figure 1. The sample distribution according to gender
Teaching Experience

Furthermore, it is found that (14) of the members had less than five years of teaching experience and the majority of the members (27) had five years and more of teaching experience. The details of the sample distribution according to experience years are given in Table Two.

Table 2. The sample distribution according to experience years

<table>
<thead>
<tr>
<th>Experience Years</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 y</td>
<td>14</td>
<td>34.1%</td>
</tr>
<tr>
<td>5 years and more</td>
<td>27</td>
<td>65.9%</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

From Table Two, it is clear that (34.1%) of the members had less than five years of teaching experience and the majority of the members (65.9%) had five years and more of teaching experience. The same details are presented in Figure Two.

![Figure 2. The sample distribution according to experience years](image)

Academic Rank

It is found that nine of the EFL faculty had lecturer rank, while (19) of the EFL faculty had teacher rank and (13) of the EFL faculty had an assistant professor and overrank. The details of the sample distribution according to qualification are given in Table Three.

Table 3. The sample distribution according to academic rank

<table>
<thead>
<tr>
<th>Academic rank</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td>Teacher</td>
<td>19</td>
<td>46.3%</td>
</tr>
<tr>
<td>Asst. Professor and over</td>
<td>13</td>
<td>31.9%</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>100%</td>
</tr>
</tbody>
</table>

From Table Three, it can be seen that the distribution according to the qualification is as follows, (22%) of the EFL members had lecturer rank, (46.3%) of the EFL members had teacher rank, and (31.9%) of the EFL members had asst. professor and overrank. That is illustrated in Graph Three.
Research Instruments

A self-administered web-based survey, a three-page questionnaire, was developed for data collection. The questionnaire consisting of 22 five Likert-type and closed-choice items was divided into three sections. The first section is specified for gaining demographic information about EFL faculty members’ gender, teaching experience, and academic rank. The second section (items 1-7) is related to principles of the four stages of Bandura's observational learning to determine EFL faculty level of awareness with a Likert scale system ranging from 1 to 5 (5= very important, 4 = important, 3= moderately important, 2= slightly important, 1= not important). The third section (items 8-22) is intended to assess the degree of EFL faculty practice of Bandura's observational learning stages with a Likert scale system ranging from 1 to 5 (5= always, 4 = often, 3= sometimes, 2= rarely, 1= never). It should be noted that the questionnaire items were derived from Bandura's (1977) observational learning principles and stages.

A) Items representing Bandura's (1977) principles of observational learning to determine EFL teachers' awareness:
- Overall concept of Observational learning          items: 1
- Attention stage                                                     items: 2
- Retention stage                                                     items: 3
- Reproduction stage                                               items: 4,5
- Motivation stage                                                   items: 6,7

B) Items representing Bandura's (1977) principles of observational learning to assess EFL teachers’ practices:
- Overall concept of Observational learning          items: 8,9,10,11
- Attention stage                                                      items: 12,13
- Retention stage                                                     items: 14,15
- Reproduction stage                                               items: 16,17,18,19
- Motivation stage                                                   items: 20,21,22

The validity, Internal Consistency, and Reliability of the Questionnaire

The validity of the questionnaire was established by requesting a panel of expert EFL university professors to revise the questionnaire and comment on the items for their suitability for the study. Their feedback was considered in adjusting some items and removing others.

Validity of Questionnaire of Awareness of Bandura's Processes
The test items were subjected to try out on a sample of twenty-five EFL faculty members. Item analysis was carried out to indicate the following:
- Determine the validity of the questionnaire.
- Determine the reliability of the questionnaire.

To test the internal consistency validity of the questionnaire on awareness of Bandura's processes, the questionnaire was administered to the pilot sample to find out the correlation between the degree of each statement and the total degree of the domain using the Pearson correlation coefficient. Table Four displays the correlation between the degree of each statement and the total degree of the domain.

Table 4. The correlation between the degree of each statement and the total degree of the domain

<table>
<thead>
<tr>
<th>Item No</th>
<th>Correlation Value</th>
<th>Sig</th>
<th>Item No</th>
<th>Correlation Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall concept</td>
<td></td>
<td></td>
<td>Reproduction process</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.466**</td>
<td>0.009</td>
<td>4</td>
<td>0.462*</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>Attention process</td>
<td></td>
<td>5</td>
<td>0.701**</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>0.694**</td>
<td>0.000</td>
<td>6</td>
<td>0.396*</td>
<td>0.030</td>
</tr>
<tr>
<td></td>
<td>Retention process</td>
<td></td>
<td>7</td>
<td>0.712**</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level.
*. Correlation is significant at the 0.05 level.

The result in Table Four shows the values of correlation are significant at (0.01) and (0.05), which means the statements of the questionnaire on awareness of Bandura's processes are valid.

In addition, the correlation between the degree of each domain and the total degree of the questionnaire was carried out. Table Five indicates the correlation between the degree of each domain and the total degree of the questionnaire.

Table 5. The correlation between the degree of each domain and the total degree of the questionnaire

<table>
<thead>
<tr>
<th>S.N</th>
<th>Skill</th>
<th>Correlation Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall concept</td>
<td>0.626**</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Attention process</td>
<td>0.750**</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>Retention process</td>
<td>0.820**</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>Reproduction process</td>
<td>0.790**</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>Motivation process</td>
<td>0.811**</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level.

The result in Table Five shows the values of correlation are significant at (0.01), which means the domains of the questionnaire of awareness of Bandura's processes are valid.


Reliability of Questionnaire of Awareness of Bandura's Processes

For measuring the reliability of the questionnaire of awareness of Bandura's processes, Cronbach's Alpha method was implemented. Table Six displays the reliability of the questionnaire on awareness of Bandura's processes.

<table>
<thead>
<tr>
<th>No of statement</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.81</td>
</tr>
</tbody>
</table>

As shown in Table Six, the value of the reliability coefficient of the questionnaire on awareness of Bandura's processes was found 0.81, which indicates that the questionnaire was very good reliable according to George and Mallery (2003).

Validity of Questionnaire of Practices of Bandura's Processes

The test items were subjected to try out on a sample of twenty-five EFL faculty members. Item analysis was carried out to demonstrate the following:
- Determine the validity of the questionnaire.
- Determine the reliability of the questionnaire.

To test the internal consistency validity of the questionnaire on practices of Bandura's processes, the questionnaire was administered to the pilot sample to find out the correlation between the degree of each statement and the total degree of the domain using the Pearson correlation coefficient. Table Seven demonstrates the correlation between the degree of each statement and the total degree of the domain.

<table>
<thead>
<tr>
<th>Item No</th>
<th>Correlation Value</th>
<th>Sig</th>
<th>Item No</th>
<th>Correlation Value</th>
<th>Sig</th>
</tr>
</thead>
</table>
| Overall concept  
8       | 0.676**           | 0.000 |
9       | 0.416*            | 0.035 |
| Attention process  
12      | 0.560**           | 0.003 |
| Retention process  
14      | 0.523**           | 0.006 |
| Reproduction process  
16      | 0.804**           | 0.000 |
17      | 0.464*            | 0.017 |
| Motivation process  
20      | 0.668**           | 0.000 |
21      | 0.834**           | 0.000 |
22      | 0.392*            | 0.049 |

The result in Table Seven indicates the values of correlation are significant at (0.01) and (0.05), which means the statements of the questionnaire on practices of Bandura's processes are valid. In addition, the correlation between the degree of each domain and the total degree of the questionnaire was implemented. Table Eight reveals the correlation between the degree of each domain and the total degree of the questionnaire.

**Correlation is significant at the 0.01 level.**

The result in Table Eight displays the values of correlation are significant at (0.01), which means the domains of the questionnaire of practices of Bandura's processes are valid.

Reliability of Questionnaire of Practices of Bandura's Processes

For measuring the reliability of the questionnaire of practices of Bandura's processes, Cronbach's Alpha method was implemented. Table Nine illustrates the reliability of the questionnaire on practices of Bandura's processes.

Table 9. The Reliability of the questionnaire of practices of Bandura's processes

<table>
<thead>
<tr>
<th>No of statement</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>0.87</td>
</tr>
</tbody>
</table>

As shown in Table Nine, the value of the reliability coefficient of the questionnaire on practices of Bandura's processes was found 0.87, which indicates that the questionnaire was very good reliable according to George and Mallery (2003).

Table 8. The correlation between the degree of each domain and the total degree of the questionnaire

<table>
<thead>
<tr>
<th>S.N</th>
<th>Domain</th>
<th>Correlation Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall concept</td>
<td>0.870**</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Attention process</td>
<td>0.817**</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>Retention process</td>
<td>0.720**</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>Reproduction process</td>
<td>0.790**</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>Motivation process</td>
<td>0.839**</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Results**

Findings of the First Question

What is the level of awareness of Bandura's processes of observational learning among EFL faculty at UQUELC?

To answer this question means scores, standard deviations, and One Sample T Test were applied to reveal the significant difference between mean scores of EFL faculty responses regarding their awareness of Bandura's processes of observational learning in the EFL context and hypothetical mean (10) on domains and the scale as a whole. The details are given in Table Ten.
From Table Ten, it can be seen the following results:

- The obtained t-value of awareness of Bandura's processes of observational learning (whole scale) is (t=11.76) and it is significant at (0.05) level where the probability value \( p \) (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL members' responses (M=3.92) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result indicates that the level of awareness of Bandura's processes of observational learning among EFL faculty is high.

- The reproduction process domain comes in first rank, followed by the motivation process domain in second rank, followed by the attention process in third rank, followed by the retention process domain in fourth rank, and the overall concept domain in fifth rank.

- The mean scores of awareness of Bandura's processes of observational learning scale ranged from 3.20 to 4.21.

- The obtained t-value of the overall concept domain is (t=1.21) and it is not significant at (0.05) level where the \( p \) value (sig=0.232) is higher than the significance level (0.05). It means there is no significant difference between the mean scores of EFL faculty responses regarding their awareness of the overall concept (M=3.20) and the hypothetical mean (3). Hence, this result indicates that the EFL faculty's awareness of the overall concept of Bandura's processes of observational learning in the EFL context is medium.

- The obtained t-value of the attention process domain is (t=7.29) and it is significant at (0.05) level where the \( p \) value (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL faculty responses regarding their awareness of the attention process (=4.05) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty's awareness of the attention process of Bandura's processes of observational learning in the EFL context is high.

- The obtained t-value of the retention process domain is (t=8.65) and it is significant at (0.05) level where the \( p \) value (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL faculty responses regarding their awareness of the retention process (M=4.02) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty's awareness of the retention process of Bandura's processes of observational learning in the EFL context is high.
- The obtained t-value of the reproduction process domain is (t=9.50) and it is significant at (0.05) level where the p value (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL faculty responses regarding their awareness of the reproduction process (M=4.21) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result demonstrates that the EFL faculty's awareness of the reproduction process of Bandura's processes of observational learning in the EFL context is high.

- The obtained t-value of the motivation process domain is (t=10.74) and it is significant at (0.05) level where the p value (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL faculty responses regarding their awareness of the motivation process (M=4.12) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty's awareness of the motivation process of Bandura's processes of observational learning in the EFL context is high. The same details are presented in Figure Four.

Figure 4. Mean Scores of EFL faculty responses and hypothetical mean on their awareness of Bandura's processes

Moreover, means scores, standard deviations, and One Sample T Test are used to find out the significant difference between mean scores of EFL faculty responses regarding their awareness of Bandura's processes of observational learning in the EFL context and hypothetical mean (3) on statements and the scale as a whole. The details are given in Table Eleven (see Appendix A). From Table Eleven, it can be seen the following results:

- Six statements come with a high degree where their t-values are significant at (0.05) level (sig <0.05) and their mean scores are higher than hypothetical value (3), while one item comes with a medium degree where its t-values is not significant at (0.05) level (sig >0.05) and its mean score is close to hypothetical value (3).

- The mean scores of the statements of awareness of Bandura's processes of observational learning ranged from 3.20 to 4.22.
- Statement (4) states, "When teaching English in the EFL context, several opportunities should be given to students to practice what they are expected to perform" and statement (5) states "In the EFL context, a complex skill such as writing is enhanced through observation along with self/peer feedback on what has been performed" ranked respectively first and second with a high degree for both, whereas the statement (3) which states"When teaching English in the EFL context, students need to remember basic components such as vocabulary to perform a language skill appropriately” and the statement (1) which states "When teaching English in the EFL context, students need to be presented with a model it could be the teacher or a character in a video demonstrating how a language skill in a lesson should be performed" ranked penultimate and last respectively with a high degree for statement (3) and a medium degree for statement (1).

### Findings of the Second Question

To what extent do EFL faculty teaching practices support Bandura's processes of observational learning at UQUELC?

To answer this question means scores, standard deviations, and One Sample T Test were applied to illustrate the significant difference between mean scores of EFL faculty responses regarding their practices of Bandura's processes of observational learning in the EFL context and hypothetical mean (3) on domains and the scale as a whole. The details are given in Table Twelve.

Table 12. One Sample T Test Details for the significant difference in domains of practices of Bandura's processes

<table>
<thead>
<tr>
<th>No</th>
<th>Domain</th>
<th>Mean</th>
<th>S.D</th>
<th>Rank</th>
<th>T</th>
<th>p</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall concept</td>
<td>4.05</td>
<td>0.68</td>
<td>3</td>
<td>9.88</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>2</td>
<td>Attention process</td>
<td>4.06</td>
<td>0.68</td>
<td>2</td>
<td>9.96</td>
<td>0.000</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Retention process</td>
<td>3.79</td>
<td>0.91</td>
<td>5</td>
<td>5.54</td>
<td>0.000</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Reproduction process</td>
<td>4.04</td>
<td>0.66</td>
<td>4</td>
<td>9.99</td>
<td>0.000</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Motivation process</td>
<td>4.12</td>
<td>0.76</td>
<td>1</td>
<td>9.41</td>
<td>0.000</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The mean of the whole scale</td>
<td>4.01</td>
<td>0.55</td>
<td>-</td>
<td>11.72</td>
<td>0.000</td>
<td>high</td>
</tr>
</tbody>
</table>

From Table Twelve, it can be seen the following results:

- The obtained t-value of practices of Bandura's processes of observational learning (whole scale) is (t=11.72) and it is significant at (0.05) level where the p value (sig=0.000) is less than the significance level (0.05). It means there is a significant difference between the mean scores of EFL faculty responses (M=4.01) and the hypothetical mean (3) in favor of the mean of EFL faculty responses. Hence, this result indicates that the degree of practices of Bandura's processes of observational learning in the EFL context among EFL faculty is high.

- The motivation process domain comes in first rank, followed by the attention process domain in second rank, followed by the overall concept domain in third rank, followed by the reproduction process domain in fourth rank, and the retention process domain in fifth rank.

- The mean scores of the practices of Bandura's processes of observational learning scale ranged from 3.79 to 4.12.
The obtained t-value of the overall concept domain is \(t=9.88\) and it is significant at \((0.05)\) level where the \(p\) value \((\text{sig}=0.000)\) is less than the significance level \((0.05)\). It means there is a significant difference between the mean scores of EFL faculty responses regarding their practices of overall concept \((M=4.05)\) and the hypothetical mean \((3)\) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty practices degree of the overall concept of Bandura's processes of observational learning in the EFL context is high.

The obtained t-value of the attention process domain is \(t=9.96\) and it is significant at \((0.05)\) level where the \(p\) value \((\text{sig}=0.000)\) is less than the significance level \((0.05)\). It means there is a significant difference between the mean scores of EFL faculty responses regarding their practices of attention process \((M=4.06)\) and the hypothetical mean \((3)\) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty practices the degree of attention process of Bandura's processes of observational learning in the EFL context is high.

The obtained t-value of the retention process domain is \(t=5.54\) and it is significant at \((0.05)\) level where the \(p\) value \((\text{sig}=0.000)\) is less than the significance level \((0.05)\). It means there is a significant difference between the mean scores of EFL faculty responses regarding their practices of retention process \((M=3.79)\) and the hypothetical mean \((3)\) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty practices the degree of retention process of Bandura's processes of observational learning in the EFL context is high.

The obtained t-value of the reproduction process domain is \(t=9.99\) and it is significant at \((0.05)\) level where the \(p\) value \((\text{sig}=0.000)\) is less than the significance level \((0.05)\). It means there is a significant difference between the mean scores of EFL faculty responses regarding their practices of reproduction process \((M=4.04)\) and the hypothetical mean \((3)\) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty practices the degree of reproduction process of Bandura's processes of observational learning in the EFL context is high.

The obtained t-value of the motivation process domain is \(t=9.41\) and it is significant at \((0.05)\) level where the \(p\) value \((\text{sig}=0.000)\) is less than the significance level \((0.05)\). It means there is a significant difference between the mean scores of EFL faculty responses regarding their practices of motivation process \((M=4.12)\) and the hypothetical mean \((3)\) in favor of the mean of EFL faculty responses. Hence, this result indicates that the EFL faculty practices the degree of motivation process of Bandura's processes of observational learning in the EFL context is high. The same details are presented in Figure Five.

![Figure 5](image-url)

*Figure 5.* Mean Scores of EFL faculty responses and hypothetical mean on their practices of
Bandura's processes

Furthermore, means scores, standard deviations, and One Sample T Test are used to find out the significant difference between mean scores of EFL faculty responses regarding their practices of Bandura's processes of observational learning in the EFL context and hypothetical mean (3) on statements and the scale as a whole. The details are given in Table Thirteen (see Appendix B). From Table Thirteen it can be seen the following results:

- All items come with a high degree where their sig values are significant at (0.05) level and their mean scores are higher than the hypothetical value (3).
- The mean scores of the statements of practices of Bandura's processes statements ranged from 3.78 to 4.46.
- Statement (20) which states "I reinforce students' correct answers" and statement (19) which states "I ensure students receive oral feedback based on current performances" ranked first and second respectively with a high degree for both. Whereas the statement (14) which states "After presenting any language skill and its components, I allocate time to assist students using learning strategies (e.g., rehearsal, note-taking, keyword, …) before asking them to perform" and the statement (15) which states "I dedicate some time for students to practice a language skill before the actual performance" ranked penultimate and last respectively with a low degree.

Findings of the Third Question

What is the relationship between the awareness level of Bandura's processes of observational learning and the practice level of Bandura's processes of observational learning among EFL faculty at UQUELC?

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Overall Concept</th>
<th>Attention Process</th>
<th>Retention Process</th>
<th>Reproduction Process</th>
<th>Motivation Process</th>
<th>Practices scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Concept</td>
<td>r</td>
<td>0.482**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>0.001</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Attention Process</td>
<td>r</td>
<td>-</td>
<td>0.382*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>-</td>
<td>0.014</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Retention Process</td>
<td>r</td>
<td>-</td>
<td>-</td>
<td>0.547**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>-</td>
<td>-</td>
<td>-0.000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reproduction Process</td>
<td>r</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.423**</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-0.006</td>
<td>-</td>
</tr>
<tr>
<td>Motivation Process</td>
<td>r</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.412**</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.007</td>
</tr>
<tr>
<td>Awareness Scale</td>
<td>r</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.658**</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Pearson’s Product Moment Correlation (r) was applied to indicate the statistical relationship at (α ≤ 0.05) level between awareness of Bandura's processes of observational learning and practices of Bandura's processes of observational learning among EFL faculty. Table Fourteen indicates the results of the Pearson’s Product Moment Correlation. From Table Fourteen, it can be seen the following:

- That there is a significant relationship between the Overall Concept of awareness and the Overall Concept of practices among EFL faculty, which is revealed by the r value 0.482, which is significant at 0.05 level where p value (sig=0.001) is less than 0.05.
- There is a significant relationship between the Attention Process of awareness and the Attention Process of practices among EFL faculty, which is shown by the r value 0.382, which is significant at 0.05 level where p value (sig=0.014) is less than 0.05.
- There is a significant relationship between the retention process of awareness and the retention process of practices among EFL faculty, which is shown by the r value 0.547, which is significant at 0.05 level where p value (sig=0.000) is less than 0.05.
- There is a significant relationship between the reproduction process of awareness and the reproduction process of practices among EFL faculty, which is revealed by the r value 0.423, which is significant at 0.05 level where p value (sig=0.006) is less than 0.05.
- There is a significant relationship between the motivation process of awareness and the motivation process of practices among EFL faculty, which is indicated by the r value 0.412, which is significant at 0.05 level where p value (sig=0.007) is less than 0.05.
- There is a significant relationship between awareness of Bandura's processes of observational learning and practices of Bandura's processes of observational learning among EFL faculty, which is confirmed by the r value 0.658, which is significant at 0.05 level where p value (sig=0.000) is less than 0.05.

Discussion

The current study aimed to investigate the implementations of Bandura's processes of observational learning from an EFL faculty perspective at Umm Al-Qura University English Language Centre. The findings from the questionnaire revealed that the awareness and practice levels of Bandura's observational learning are high. Additionally, a significant relationship is found between awareness and practices levels of observational learning processes among the faculty members. The literature and research studies regarding Bandura's observational learning in the ESL/EFL field are immensely scarce. However, it is noteworthy that the results are consistent with the study of Alshobramy (2019), and Samsudin et al. (2017) in which they asserted the applicability of Bandura's observational processes in learning the English language.

Albeit the level of awareness of Bandura's processes of observational learning among EFL faculty is high, it should be noted in Tables 10 and 11 that EFL faculty awareness of the overall concept of Bandura's observational learning is medium and ranked fifth compared to the separate cognitive stages (attention, retention, reproduction, and motivation), which constitute the overall concept of observational learning, were high. This indicates the existence of misconception regarding the idea of modeling and observation in teaching among some of the EFL faculty, even though the results of the second question showed modeling and observation are strongly practiced and needed in classrooms, as shown in Tables 12 and 13. This result goes in line with the study of Horsburgh and Ippolito (2018), in which clinical teachers were unaware of the effect of role modeling on their students. Perhaps an interesting interpretation of such contrast could be related
to the abundant literature in the EFL/ESL field regarding imitation and modeling as mechanical practices of behavioristic methods such as the Audiolingual method, which have been attacked heavily by more recent interactive approaches stressing meaningful practice and higher order cognitive skills (Larsen-Freeman, 2000; Lightbown & Spada, 2013). However, as stated in the literature review, modeling and imitation are integrative parts of the language learning process documented in recent and well-theorized methods such as the Total Physical Response and Task-based Instruction.

Teachers need to be knowledgeable and aware of varying theoretical principles to facilitate the complexity of language acquisition. The current study provides remarkable pedagogical information using principles of Bandura's observational learning from the EFL faculty perspective of various academic ranks and teaching experience. Moreover, it identifies a misconception about observation and modeling that might hinder learners' language learning. Hence, there is a merit need to raise awareness of Bandura's observational learning among EFL faculty as a mediative theory between behaviorism and cognitivism.

**Conclusion**

The goal of this study was to investigate implementations of Bandura's processes of observational learning from the EFL faculty perspective at Umm Al-Qura University English Language Centre. The findings showed that the overall awareness of Bandura's observational learning among EFL faculty proved high and was reflected in their teaching practices. However, the analysis of the results showed the existence of misconceptions held by some of the faculty members towards the overall concept of observational learning. The researchers proposed that this could be due to the exuberant literature that regards imitation and modeling as mechanical practices of behavioristic methods. Moreover, the study revealed a significant relationship between EFL faculty awareness and practice of observational learning, suggesting the applicability of Bandura's observational learning in EFL classrooms. Therefore, the current study highlights the need to raise awareness of Bandura's observational learning processes. One of the limitations of the current study is the small number of participants. Further studies should include a larger sample size to validate and support the indicated results. Also, survey and experimental studies need to be conducted to validate the applicability of Bandura's observational learning in different EFL/ESL classrooms, particularly from learners' and teachers' perspectives.

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References


University Press.

**Appendices**

**Appendix A**

**The Significant Differences in Statements of Awareness of Bandura's Processes**

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Mean</th>
<th>S.D</th>
<th>Rank</th>
<th>T</th>
<th>p</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall concept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>When teaching English in the EFL context, students need to be presented with a model it could be the teacher or a character in a video demonstrating how a language skill in a lesson should be performed.</td>
<td>3.20</td>
<td>1.03</td>
<td>7</td>
<td>1.21</td>
<td>0.232</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>Attention process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>When learning English in the EFL context, students’ attention is governed by how important and interesting the language content is to them.</td>
<td>4.05</td>
<td>0.92</td>
<td>5</td>
<td>7.29</td>
<td>0.000</td>
<td>high</td>
</tr>
</tbody>
</table>

Retirement process
<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Mean</th>
<th>S.D</th>
<th>Rank</th>
<th>T</th>
<th>p</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>When teaching English in the EFL context, students need to remember basic components such as vocabulary to perform a language skill appropriately.</td>
<td>4.02</td>
<td>0.75</td>
<td>6</td>
<td>8.65</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>4</td>
<td>When teaching English in the EFL context, several opportunities should be given to students to practice what they are expected to perform.</td>
<td>4.22</td>
<td>1.19</td>
<td>1</td>
<td>6.54</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>5</td>
<td>In the EFL context, a complex skill such as writing is enhanced through observation along with self/peer feedback on what has been performed.</td>
<td>4.20</td>
<td>0.74</td>
<td>2</td>
<td>10.21</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>6</td>
<td>In the EFL context, reinforcement can be internal, external, and vicarious (seeing classmates being rewarded).</td>
<td>4.10</td>
<td>0.73</td>
<td>4</td>
<td>9.56</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>7</td>
<td>In the EFL context, students acquire information from teachers or textbooks, but it depends on how motivated students are to reproduce what has been acquired.</td>
<td>4.15</td>
<td>1.01</td>
<td>3</td>
<td>7.23</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>The mean of the whole scale</td>
<td>3.92</td>
<td>0.50</td>
<td>-</td>
<td>11.76</td>
<td>0.000</td>
<td>high</td>
</tr>
</tbody>
</table>

**Appendix B**

**The Significant Difference in Statements of Practices of Bandura's Processes**

Table 13. *One Sample T Test Details for the significant difference in statements of practices of Bandura's processes*

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
<th>Mean</th>
<th>S.D</th>
<th>Rank</th>
<th>T</th>
<th>p</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall concept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I give clear instructions followed by presenting a modeled example of how tasks related to reading should be performed.</td>
<td>4.05</td>
<td>0.89</td>
<td>7</td>
<td>7.52</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>9</td>
<td>I give clear instructions followed by presenting a modeled example of how tasks related to writing should be performed.</td>
<td>4.10</td>
<td>0.70</td>
<td>5</td>
<td>10.03</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>10</td>
<td>I give clear instructions followed by presenting a modeled example of how tasks related to listening should be tackled.</td>
<td>3.95</td>
<td>0.86</td>
<td>10</td>
<td>7.04</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>No</td>
<td>Statements</td>
<td>Mean</td>
<td>S.D</td>
<td>Rank</td>
<td>T</td>
<td>p</td>
<td>Degree</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>11</td>
<td>I give clear instructions followed by presenting a modeled example of how tasks related to speaking should be performed.</td>
<td>4.12</td>
<td>1.05</td>
<td>4</td>
<td>6.81</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td><strong>Attention process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I present language content using games, films, picture descriptions, body language... (any technique related to visual imagery).</td>
<td>4.10</td>
<td>0.86</td>
<td>6</td>
<td>8.16</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>13</td>
<td>I explain the long-term rewards of learning English such as pointing out the academic and general benefits of learning English.</td>
<td>4.02</td>
<td>0.88</td>
<td>8</td>
<td>7.45</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td><strong>Retention process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>After presenting any language skill and its components, I allocate time to assist students using learning strategies (e.g., rehearsal, note-taking, keyword, …) before asking them to perform.</td>
<td>3.80</td>
<td>0.98</td>
<td>14</td>
<td>5.25</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>15</td>
<td>I dedicate some time for students to practice a language skill before the actual performance.</td>
<td>3.78</td>
<td>1.06</td>
<td>15</td>
<td>4.71</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td><strong>Reproduction process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>When students struggle to perform a language skill, I dedicate time revising basic components needed for the skill.</td>
<td>3.93</td>
<td>0.81</td>
<td>12</td>
<td>7.25</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>17</td>
<td>I encourage group discussions and cooperative work.</td>
<td>4.15</td>
<td>1.08</td>
<td>3</td>
<td>6.76</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>18</td>
<td>I ensure students receive written feedback based on current performances.</td>
<td>3.95</td>
<td>0.97</td>
<td>11</td>
<td>6.25</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>19</td>
<td>I ensure students receive oral feedback based on current performances.</td>
<td>4.15</td>
<td>0.82</td>
<td>2</td>
<td>8.91</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td><strong>Motivation process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I reinforce students' correct answers.</td>
<td>4.46</td>
<td>0.77</td>
<td>1</td>
<td>12.04</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>21</td>
<td>I reinforce students' accurate performances of language skills.</td>
<td>3.90</td>
<td>0.97</td>
<td>13</td>
<td>5.95</td>
<td>0.000</td>
<td>high</td>
</tr>
<tr>
<td>22</td>
<td>I encourage students who fail to perform a language skill to perform it correctly to some extent.</td>
<td>4.00</td>
<td>0.86</td>
<td>9</td>
<td>7.39</td>
<td>0.000</td>
<td>high</td>
</tr>
</tbody>
</table>

The mean of the whole scale: 4.01 ± 0.55, t(11.72) = 4.00, p < 0.001, high.
“Golden Curriculum” Instructional Design Competency Framework based on College English Award-Winning Instructional Design

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Abstract
The importance of instructional design competency for university lecturers of English as a Foreign Language in delivering Higher-ordered, Innovative, and Challenging courses within the Golden Curriculum context in China cannot be underestimated. However, research in this area is limited, posing the need for teachers to reskill and upskill themselves to improve their teaching competencies. Therefore, this study aims to develop an instructional design competency framework based on a content analysis of 18 national award-winning instructional designs from the Star Teacher Contest between 2020 and 2022, using NVivo12 software. The framework encompasses four key elements: learning and learners, learning objectives, learning activities, and learning assessment. The findings emphasize the importance of understanding learning theories, employing scaffolding techniques, and catering to learners’ characteristics to support their academic progress. Moreover, the framework highlights the significance of fostering critical thinking and cross-cultural communication competencies, creating challenging yet feasible tasks, and using various assessment tools that incorporate real-life learning outcomes. By using this instructional design competency framework, teachers can enhance their teaching competencies and effectively implement the Golden Curriculum. Furthermore, educational institutions can use the framework to provide targeted support and training to teachers, enabling a successful integration of the Golden Curriculum into their English teaching programs.

Keywords: award-winning, college English, golden curriculum, higher ordered-innovative-challenging, instructional design

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Introduction

Since the Ministry of Education (MOE) of China initiated a call for “Developing Golden Curriculum (i.e., quality courses) and eliminating Water Curriculum (i.e., poor-quality courses)” in 2018, “Golden Curriculum” has become an issue under discussion among universities and colleges. It challenges university lecturers of English as a Foreign Language (ULEFL) to reskill and upskill themselves to enhance their teaching competency.

Moreover, the COVID-19 pandemic has changed how education is delivered (UNESCO, 2021), leading to online teaching mode due to school closures. During the pandemic, ICT-based (Information and Communication Technology) online teaching was not a choice to provide excellent instruction, but rather a “necessity” (Gao et al., 2022). The clusters of ICT innovations worldwide have brought new opportunities for foreign language teaching in universities and colleges in the post-pandemic era. This unique online-onsite integrated teaching ecology has also put forward new requirements for ULEFL (Xu, Li, & Liu, 2021).

Undoubtedly, the enhancement of ULEFL’s instructional design competencies in the new context is crucial, as it directly addresses the importance of equipping ULEFL with the necessary skills to develop the Golden Curriculum. Therefore, this study aims to develop the Golden Curriculum for UELFL, focusing on crucial aspects of instructional design competency. Its significance lies in equipping UELFL with practical strategies and tools to enhance student engagement and learning outcomes. The research objectives include exploring of the instructional design competency elements regarding learning and learners, learning objectives, learning activities, and assessment.

Previous studies have indicated that the component of instructional design forms one of the essential professional assessments, which serve as the evidence benchmark for quality language teaching (Pang, 2016). According to Branch & Kopcha (2004) this “instructional design is intended to be an iterative process of planning outcomes, selecting effective strategies for teaching and learning, choosing relevant technologies, identifying educational media and measuring performance” (p.77). A good instructional design maximizes the effectiveness and efficiency of teaching and learning, which requires the ULEFL to demonstrate an ability to design the instruction to meet the needs of students better.

Although the critical role instructional design plays in ULEFL’s teaching competencies, exploring of this essential pedagogical competency seems scarce in language teachers’ professional development (Pang, 2016). Moreover, the new characteristics of the Golden Curriculum, with an emphasis on Higher-ordered, Innovation, and Challenging (HIC) courses, pose an urgent need for practical course design to meet the requirement for quality blended teaching in the new era. Since the innovative instructional design program has become the assessment tool for ULEFL to be eligible for national teaching contests (Shu, 2017), the national award-winning instructional design programs are the ideal publicly accessible documents for teachers to stay current with the latest instructional design strategies and improve their teaching competency.

Therefore, to help ULEFL bridge the gap between the Golden Curriculum requirement for HIC courses and ULEFL’s inadequacy of instructional design competency, this paper aims to explore ULEFL’s Golden Curriculum instructional design competency based on the national award-winning instructional design programs between 2020 and 2022 adopting the Cambridge
English Teaching Competency Framework as the theoretical framework for a qualitative content analysis using NVivo12. Developing of the Golden Curriculum instructional design competency framework is significant as it provides valuable insights into effective teaching methods to promote best practices and foster innovation in college English instruction. Furthermore, it allows the ULFEL to learn from successful instructional models and adapt them to enhance student learning outcomes in college English courses.

Hence, the research questions of the study are as follows:

RQ1: What is the Golden Curriculum Instructional Design competency element regarding Learner and Learning?
RQ2: What is the Golden Curriculum Instructional Design competency element regarding Learning Objectives?
RQ3: What is the Golden Curriculum Instructional Design competency element regarding Learning Activities?
RQ4: What is the Golden Curriculum Instructional Design competency element regarding the Learning Assessment?
RQ5: What is the Golden Curriculum Instructional Design competency framework for ULEFL?
RQ6: To what extent does the Cambridge English Teaching Framework help university English lecturers improve their Instructional Design Competency?

By exploring the Golden Curriculum instructional design competency elements regarding learner and Learning, Learning Objectives, Learning Activities, and Assessment, the overall competency framework of Golden Curriculum instructional design is developed first. After that, the study investigates the extent to which the Cambridge English Teaching Competency Framework contributes to improving of ULEFL’s instructional design competency, addressing the gap between Golden Curriculum requirements and ULEFL’s skills in the post-pandemic era.

Literature Review

Instructional Design Competency for ULEFL

The goal of instructional design is to facilitate learning and improve performance (Branch & Stefaniak, 2019). It can be defined as the practice of creating instructional experiences to help facilitate learning most effectively (Kurt, 2015), which is “a complex process that promotes creativity during development and results in instruction that is both effective and appealing to students” (Branch & Stefaniak, 2019, p. 88).

The term “instructional design” and “learning design” are often used interchangeably to refer to the application of theories of learning and instruction to the creation of learning material and the design of learning experiences (MacLean & Scott, 2011). Since the focus of the present study is to analyze the award-winning instructional design from the ULEFL’s perspective of designing teaching and learning to compete in national teaching contests, therefore, the term “instructional design” is adopted.

The quality of instructional design has been a significant concern for the reform of higher education, and instructional design competency played an essential role in improving teaching efficiency and students’ learning outcomes. Designing multimedia materials and instructional methods for learners to understand them is required for teachers (Vijayakumar, Arasan, &
Venkateswara, 2023), especially for ULEFL in developing the Golden Curriculum. However, the overall level of university teachers’ instructional design competency is unsatisfactory, and the assessment tool for instructional design competency is yet to be developed (Sheng, Zhong, & Zhang, 2015).

Despite numerous instructional design models, i.e., the Analysis, Design, Develop, Implement, and Evaluation (ADDIE) model as a gold standard framework for creating course content (Keating, Vetter, & Klar, et al., 2022), Dick and Cary’s Systems Approach Model, ASSURE (Analyze learner characteristics, State objectives, Select/modify/design materials, Utilize materials, Require learner response, and Evaluation), and Backward Design (Kurt, 2015), they share the following several characteristics: learner-centered, goal-oriented, real-world performance, measurable learning outcomes, valid measurement instruments, and a teamwork design (Gustafson & Branch, 2002).

However, many teaching methods or strategies “rarely integrate an instructional design model to facilitate the delivery of a course” (Naidoo et al., 2021, p.3). These shared characteristics of the instructional design models were reflected in the award-winning instructional design for the national teaching contest, which focuses on learning and learner analysis, the use of textbooks and materials, and the instructional design (i.e., defining learning objectives, teaching process, and evaluation). Therefore, by analyzing the award-winning instructional design, this study aims to bridge the gap and provide ULEFL with an ideal reference to enhance their instructional design skills and effectively develop Golden Curriculum courses.

The College English Teaching Contests

The college English teaching contests improve not only quality teaching but also the overall academic performance of the students (Wang, 2010). There are influential national teaching contests in China, i.e., FLTRP “Star Teacher” Contest, “SFLEP” National College English Teaching Contest, Foreign Language Golden Curriculum Team-teaching Contest by HEP, etc. The integration of competition and teaching practice has become one of the crucial ways to enhance ULEFL’s teaching competencies (Liu & Li, 2021). In addition, the theoretical framework for analyzing the award-winning instructional design will provide an effective instrument to interpret and evaluate to reskill and upskill ULEFL’s instructional design competency.

Cambridge English Teaching Framework

The Cambridge English Teaching Framework (CETF) aims to identify language teachers’ skills, plan for developing areas, and identify ways to achieve them. There are five categories for teaching the English language and skills with crucial competencies for effective teaching (UCLES, 2019). The framework helps identify the instructional design elements of the award-winning design, since this framework covers the aspects of the Award-Winning Instructional Design (AWID) with detailed and indicative of the critical principle and concepts relevant to each teaching competency component (See Table one).
Table 1. The Link between the Cambridge English Teaching Framework (CETF) and the AWID

<table>
<thead>
<tr>
<th>No.</th>
<th>CETF Category</th>
<th>CETF Components</th>
<th>Link to the AWID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning and the Learner</td>
<td><em>Learning theories; FLA and SLA; Language-Teaching methodologies; Understanding learners.</em></td>
<td>Learner and Learning Analysis</td>
</tr>
<tr>
<td>2</td>
<td>Teaching, Learning, and Assessment</td>
<td>Planning language learning: <em>lesson planning and course planning,</em> Using language-learning resources and materials: using teaching aids, digital resources, etc.; Managing language learning: responding to learners, managing classroom activities, etc.; Teaching language systems: vocabulary, grammar, etc.; Teaching language skills: listening, speaking, reading, writing; Assessing language learning: inform learning, etc.</td>
<td>Teaching and Learning goals; Teaching Process: content, instructional design concept; language-learning sources and materials with reasons for their selection; managing language learning with steps and activities.</td>
</tr>
<tr>
<td>3</td>
<td>Language Ability</td>
<td>Classroom language; Language models; Recognising learner errors; Communicating with other professionals.</td>
<td>Integrated into Teaching Process</td>
</tr>
<tr>
<td>4</td>
<td>Language Knowledge and Awareness for Teaching</td>
<td><em>Language awareness; Terminology for describing language; Reference materials.</em></td>
<td>Integrated into Teaching Process</td>
</tr>
<tr>
<td>5</td>
<td>Professional Development and Values</td>
<td>Classroom observation; Reflecting on teaching and learning; Planning development; Teacher research; Teamwork and collaboration; Professional roles and responsibilities.</td>
<td>Integrated into Teaching Process <em>Ideological-Political elements integrated into the teaching process</em></td>
</tr>
</tbody>
</table>

Therefore, CETF was used as an analytical framework to identify the characteristics of a good instructional design, refine it from a more comprehensive perspective, and help university English lecturers improve their instructional design competency.

**Method**

A qualitative content analysis using NVivo12 software was conducted to develop an instructional design competency framework for university lecturers of English as a Foreign Language (ULEFL) within the context of Golden Curriculum development.

The study explored instructional design competency elements based on the Cambridge English Teaching Framework (CETF). To improve the reliability of the content analysis, the present study mainly followed the checklist for researchers attempting to improve the trustworthiness of the study from the perspective of data collection method, sampling strategy, selecting the unit of analysis, categorization and abstraction, interpretation, representativeness, reporting results, and reporting analysis process (Elo, Kääriäinen, & Kanste, 2014).

**Participants**

A purposeful sampling technique was employed to select the unit of analysis in this study. As the most common form of qualitative sampling technique (Merriam, 2009), the criteria for selection of AWID are as follows: (1) top-level instructional design submitted to the national level teaching contests; (2) representative and exemplary for college English teaching in the context of Golden Curriculum; (3) easy to get access; and (4) free of charge. There are a handful of meaningful teaching contests for language teachers. Still, FLTRP’s Star Teacher Contest is one of the most significant events nationwide involving virtually ULEFL in every province to
participate with an instructional design template to follow as one of the requirements for selecting the final contestants. A total of 18 AWID was from the Official Account of Wechat posted by FLTRP, a leading foreign language publishing house organizing the national teaching contest—Star Teacher Contest. Therefore, choosing the AWID from the FLTRP Star Teacher Contest is appropriate for the study. In addition, based on the inductive analysis of the AWID, the data were saturated by analyzing 18 AWID between the years 2020 and 2022, while the focus of the contest is to develop quality teaching in the context of the Golden Curriculum.

A total of 18 award-winning instructional designs from 2020 to 2022, which met the selection criteria, are included in the study as presented in Table Two.

Table 2. The Number and Codes of the Award-Winning Instructional Design (2020-2022)

<table>
<thead>
<tr>
<th>No.</th>
<th>Champion</th>
<th>Runner-up</th>
<th>Second Runner-up</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>18</td>
</tr>
</tbody>
</table>

**Research Instruments**

For qualitative research on the content analysis of the documents, the researcher is the primary instrument for gathering data and data analysis. The first step was to find the relevant materials in the process, as mentioned above. The authenticity and accuracy of the data were also accessed. There are studies advocating the teaching contest as a means for the development of teachers (Shu, 2017; Wang, 2010), and integrating the competition and teaching practice is an effective method to improve the teaching competencies of university teachers (Li, Long, & Li, 2020).

Moreover, the researchers critically reflected on their values, assumptions, and experiences that could have influenced the research process. It allows the researchers to acknowledge the bias and minimize the impact on the study. As for credibility in terms of methods of data collection, a systematic literature review on instructional design and a case study on instructional design documents can reduce the influence of the bias on the study. Peer review was to validate the data analysis process and findings to ensure that the coding and themes that emerged from the content analysis accurately represented AWID’s content. In terms of transferability, a detailed description of the AWID and the Star Teacher Contest and the Cambridge English Teaching Framework, Golden Curriculum context, data collection method, and sampling techniques allows readers to judge the transferability of the present study to other contexts.

**Research Procedures**

The 18 AWID documents were imported to NVivo12 for coding. Initial codes based on the Cambridge English Teaching Framework (CETF) were created for the deductive study, while the inductive study also started for open coding. Themes were developed by axial coding by comparing, modifying, deleting, or merging the open coding. A matrix was generated and exported to Excel for data analysis. During the data analysis process, four components were examined according to the Cambridge English Teaching Framework (CETF): Learning and learners, Learning objectives, Learning activities, and Assessment. A discussion was then conducted to
identify the alignment between the CETF and the instructional design competencies revealed in
the award-winning instructional designs (AWID). Additionally, potential areas for improvement
were identified based on the CETF to enhance the instructional design competencies in future.

**Results**

*Learning and Learner*

The themes grouped under the heading “Learning and the Learner” provide a conceptual
and theoretical basis for university English lecturers to develop their instructional design
competency.

*Learning Theories, Language-Teaching Theories, and Methodologies*

<table>
<thead>
<tr>
<th>Category</th>
<th>Descriptions</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stages of Cognitive Development (2022A1)</td>
<td></td>
</tr>
<tr>
<td>Language-Teaching Theories</td>
<td>TERRIFIC (2020B2), ACTIVE (2021C2), READ (2021C2)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2022C2), Blended learning (2021C1, 2022C2), Communicative Approach (2020C3,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2021B1), PBL (2021C1, 2021C3), OBE (2020A1), Bloom’s Taxonomy (2020C2),</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Think-Pair-Share (2021B1), Learning and Using Integration (2022A1)</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table three, the AWID mainly focuses on the Learning theories such as scaffolding, inquiry learning, deep learning, and stages of cognitive development; Language-teaching approaches, such as TERRIFIC (Target, Evaluate, Routinize, Reflect, Inquire, Fulfil, Integrate, Content) for critical English teaching integrating language ability, cross-cultural ability and critical thinking ability in foreign language teaching and learning, ACTIVE foreign language teaching concepts (Achieve Culture-and-Thought-Integrate Value Education), and READ critical reading strategy (Recognizing language, Exploring premise, Assessing Values, and Drawing conclusions); and language-teaching methodologies, namely, POA (Production-Oriented Approach), blended learning, communicative approach, PBL (Project-Based Learning), OBE (Outcome-Based Education), Bloom’s Taxonomy on teaching objectives, Think-Pair-Share, Learning and Using Integration.

Most of the AWID adopted POA in university English instruction advocated by Wen Qiuqang, the developer of POA in China (Wen, 2018; Zeng, 2019). There is a three-phase teaching process: motivating, enabling, and assessing. The three principles underpin the teaching hypothesis, while the three-phase teaching process reflects the principles by testing the hypothesis.

It is worth noting that there is a tendency to develop language teaching principles by participants with their teaching team, such as ACTIVE and READ teaching principles, adapted TERRIFIC aiming at the development of critical thinking in language teaching (Jiao, 2022; Sun, 2019).

*Understanding Learners*

There is a wide variety of learners regarding their academic backgrounds, mindsets, interests, and motivations. They have shown a relatively sufficient foundation for vocabulary and
grammar with good listening and reading ability, but they need to develop their discourse analysis to understand complex meanings. Meanwhile, there is a shared view on the weakness of their language skills in speaking and writing (See Table 4 in Appendix A).

Moreover, the AWID also pays attention to learning and innovation, such as higher-order thinking skills and cross-cultural communication skills, and information literacy, such as searching for information and forming 21st-century skills (Walser, 2021).

Learning Objectives
Integration of Global, Educational, and Instructional Objectives

The learning objectives of the AWID emphasize integration of global, educational, and instructional objectives for the award-winning instruction design. Adopting the three levels of objectives categorized by Anderson et al. (2001), the learning objectives of AWID, which emphasize language objectives and goals of educating students, can be interpreted as instructional level, educational level, and global level. For language goals, the objective scope is narrow, and the purpose is to prepare lesson plans and unit plans, i.e., planning learning activities based on the passage in one unit of the coursebook. The goals of educating students are relatively broad to provide vision, i.e., nurturing virtue for the future global citizens. Most AWID emphasizes the language goals to develop learning objectives as 2021B1, with only a few AWID (i.e., 2020B1) integrating learning objectives with emotional and spiritual goals. However, most learning objectives fall into the above three levels of objectives.

Measurable Action Verbs for Learning Objectives

There are measurable action verbs in describing the learning objectives, such as apply, analyze, and publish, most of which belong to the higher-order learning objectives of Bloom’s taxonomy (Anderson et al., 2001).

Table 5. Measurable action verbs based on the revised Bloom’s Taxonomy Table

<table>
<thead>
<tr>
<th>Level</th>
<th>Measurable Action Verbs and Frequencies</th>
<th>Source Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply</td>
<td>use (10), apply (8), tell (3), quote (2), solve, deal with, talk about, express, choose, take notes, introduce</td>
<td>2020C3 excluded</td>
</tr>
<tr>
<td>Analyze</td>
<td>analyze (8), synthesize (2), distinguish (2), compare, contrast, differentiate, reflect</td>
<td>2020C1, 2020C2, 2020B2, 2021C1, 2021C3, 2022C2, 2022B1 excluded</td>
</tr>
<tr>
<td>Evaluate</td>
<td>evaluate (6), re-examine, develop, check (2), critique (3), adjust, argument</td>
<td>2020C1, 2020B1, 2021A1, 2021C1, 2022C1, 2022C2 excluded</td>
</tr>
<tr>
<td>Create</td>
<td>Publish (2), design, and produce</td>
<td>2022A1, 2022B1, 2022C3</td>
</tr>
</tbody>
</table>

Real-world Performance

The learning outcomes developed based on the learning objectives are relevant to students’ real life, such as an interview on “How to make it in college” (2020A1), speeches on China Dream as a College Student Sees it (2020C1) and Success as I see (2020C3). According to Lima, Prasetyo, and Muda (2019), it is essential to combine rigorous content with real-world relevance to provide quality teaching and learning. As a result, ULEFL (presumably an educational framework or approach) should design learning objectives that consider real-world performance.
Integrating Ideological-political Content into Learning Objectives

The ideological-political content integration into the learning objectives shown in Table five reveals the focus of the implicit value and moral education for EFL teaching and learning. It highlights the importance of integrating individual needs into the bigger picture of national development. Moreover, national and global citizenship focus on cultural confidence, and open, inclusive, and respectful citizenship is encouraged. Cultural belief is stressed through the introduction and discussion of Chinese philosophy, and cross-cultural communication is crucial for language class in terms of critical thinking and compelling global communication.

Table 6. Ideological-political content integration into learning objectives

<table>
<thead>
<tr>
<th>Category</th>
<th>Ideopolitical Content</th>
<th>Sources of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism and Collectivism</td>
<td>individual dream integrated into Belt and Road Initiative; integration of career goals and innovation to serve the China Dream; professional identity; incorporate individual development into national development</td>
<td>2020C1, 2020B2.</td>
</tr>
<tr>
<td>National and Global citizenship</td>
<td>China dream; identification emotionally with the country; cultural confidence; China wisdom, emotionally identified with Chinese culture; patriotism; multiculturalism; openness, inclusiveness, cultural self-awareness, and cultural confidence; respect; patriotic sentiment; community of shared future for humanity; cultural ambassador; firm believer and ambassador for Chinese culture; identify and transmit Chinese culture; introduce the world to China; introduce China to the world; tell the story of China well; national spirit; harmony in diversity, benevolence, righteousness, propriety, wisdom, and faith, being friendly to neighbors</td>
<td>2020C1, 2020C2, 2020C3, 2020B1, 2020B2, 2021C2, 2021C3, 2021B2, 2022A1, 2022C1, 2022C2, 2022C3, 2022B1.</td>
</tr>
<tr>
<td>Spirit</td>
<td>“dedication” in socialist core values; seek for a better self; standing firm in support of one’s ideal and principle; the spirit of striving; the spirit of seeking truth from facts and the rigorous academic attitude; a spirit of scientific exploration; discovery</td>
<td>2020C2, 2020B1, 2021B1, 2022B2</td>
</tr>
<tr>
<td>Emotion</td>
<td>humanistic care; sense of happiness; emotional character shaping</td>
<td>2020B2, 2022B1</td>
</tr>
<tr>
<td>Attitude</td>
<td>healthy life; positive life attitude; balance study and life; time management</td>
<td>2020A1, 2021B1, 2020C3</td>
</tr>
<tr>
<td>Morality</td>
<td>moral education; ethical speaker</td>
<td>2020C1, 2021B2.</td>
</tr>
</tbody>
</table>

Learning Activities

The AWID keeps an activity format for starting lessons, i.e., brainstorming (2020C3) and questionnaire (2022C2), and follows the chronological sequence for organizing and maintaining learning activities.

Using Language-learning Online Resources and Materials

Apart from adapting coursebooks to increase difficulty levels to challenge learners based on their cognitive level and language proficiency level, such as changing after-class exercises into teaching content in 2022A1 to achieve learning objectives, online supplementary materials are often selected to deepen the understanding of the coursebook content. Moreover, online learning platforms are widely used for pre-class task assignment submission and assessment, and discussion activity, i.e., Unipus, iWrite, iTest, Pigai.org, Mini Teaching Assistant Platform, MOOC, Quizlet, live streaming platform, and online questionnaire platform.
“Golden Curriculum” Instructional Design Competency Framework
Yan, Sihes, & Zhang

Focusing on Improving Speaking and Writing Skills

There are 58 items generated regarding teaching language systems, i.e., teaching vocabulary and grammar (9), discourse (2); as well as teaching language skills, i.e., teaching listening (4), speaking (16), reading (10), writing (16), and translating (1).

Out of the 18 AWID, 16 of them primarily emphasize the enhancement of speaking and writing abilities rather than focusing on reading and listening skills.

The focus is not on improving reading skills in the end, but instead on the means to enhance speaking and writing, which is responding to the student’s needs, as shown in Appendix A. Based on the analysis of students, the assumption is that their reading proficiency level is better than speaking and writing. Therefore, articles in the coursebook are sometimes adopted as the medium to improve writing and speaking skills. This also explains the purpose of vocabulary and grammar study is to use diverse verbs (i.e., 2021C1) to improve speaking and writing skills.

Responding to Learners

There are 10 AWID emphasizing the interaction with students by offering oral feedback, i.e., evaluating sample speeches (2021A1), summarizing errors for explanation (2021C1, 2021B1); adjusting the pace of learning activities based on learner response (2020A1); using radar chart to provide feedback of learner experience.

Learning Assessment

All Award-winning instruction designs emphasize the importance of formative assessment, indicating that ULEFL needs to understand key concepts and principles for evaluation, such as formative vs. summative assessment, stressing the creation of formative assessment throughout the whole learning activity. There is a familiarity with assessment types, such as progress assessment (2020A1), and achievement assessment (2021B1, 2021C1, 2021C2, and 2022B1), such as using essays, e-portfolios, and before or after class quizzes.

There are 11 designs emphasizing the importance of using assessment to inform learning, which could help learners become more autonomous and develop better language learning strategies, i.e., recognize learner difficulties (2020C2 and 2021C2), present exemplary assignments (2022A1 and 2022B1), comment speech drafts (2020C30 and 2022A1) to help learners become more aware of the speech writing. There is a tendency to adopt lecturer-learner assessment shown in 8 plans (2020B1, 2020B2, 2020C2, 2021A1, 2021B1, 2022A1, 2022B1, and 2022B2), online-offline blended dynamic assessment (2020B1, 2020C1, 2021C1 and 2022B1) adopting online learning platforms such as Unipus.

To sum up, the results of the AWID (Award-winning Instructional Design) analysis reveal several key themes. The AWID focuses on learning and language-teaching theories such as scaffolding, inquiry learning, and the communicative approach. While emphasizing the development of learners’ speaking and writing skills, integrating of ideological-political content into learning objectives highlights the importance of cultural confidence and cross-cultural communication. The AWID incorporates real-world performance and uses measurable action verbs in learning objectives. It also emphasizes formative assessment and interaction with learners. Overall, the findings provide valuable insights for instructional design in university English education.
Discussion

Previous studies on instructional design mainly focused on the specific teaching methods applied in EFL teaching, such as a corpus-based pronunciation teaching model (Qian & Deris, 2023), or a pedagogical approach to the instruction of listening skills (Robillos, 2023). There is a lack of adopting an established teaching competency framework, such as the Cambridge English Teaching Framework, as the baseline model to examine the required instructional design competency for ULEFL to improve their overall teaching performance. Therefore, using the Cambridge English Teaching Framework, we can analyze the Award-Winning Instructional Design to uncover instructional design competencies related to learners, learning objectives, activities, and assessment. Moreover, a framework of the Golden Curriculum instructional design is to respond to the need for higher-ordered, innovative, and challenging college English courses. The following section is to answer the research questions.

RQ1: What is the Golden Curriculum Instruction Design element regarding Learner and Learning?

Five perspectives are related to learner and learning: (1) The ability to apply constructivism theory for learners to construct knowledge; (2) The ability to be skillful in practicing scaffolding concepts, communicative approach, PBL, and OBE to emphasize learner-centered teaching; (3) The ability to engage learners in active learning to build new knowledge based on their prior knowledge and understanding; (4) The ability to enhance learners’ critical thinking ability and cross-cultural communication competence in language teaching; and (5) A mind shift from surface to deep approaches to learning, such as deep learning, higher stages of cognitive development.

Nevertheless, ULEFL must conduct a more comprehensive review of learning theories and second language acquisition (SLA) theories to effectively incorporate them into an instructional design that aligns with the specific learning activities. Areas of the improvement of instructional design are as follows: awareness of humanism, social-constructivism, multiple intelligences, noticing, interlanguage, implicit/explicit learning, and discovery learning based on the framework.

RQ2: What is the Golden Curriculum Instruction Design element regarding Learning objectives?

It requires the ability to (1) develop learning objectives based on an understanding of learning and learners to scaffold them to improve to a higher level of learning; (2) develop learning objectives in a holistic mindset by integrating global, educational, and instructional learning objectives with measurable action verbs; (3) develop measurable learning objectives for ideopolitical content exploited in the coursebook; and (4) the awareness of integrating examples and case studies in real life into performance-based learning outcomes when developing learning objectives.

However, there seem to be insufficient measurable action verbs based on Bloom’s taxonomy or other instructional models for describing learning objectives in some of the AWIDs, which may lead to unfulfilled learning objectives, if not invalid ones. Therefore, the knowledge and competencies in developing learning objectives are based on needs analysis, measurable and observable performance, and a holistic mindset of integrating ideopolitical, educational, and instructional learning objectives to plan the lesson creatively.
RQ3: What is the Golden Curriculum Instruction Design element regarding Learning activities?

It requires the ability to (1) select, adapt, and supplement learning materials and online resources; (2) teach language skills effectively, primarily through reading to improve writing and speaking skills consistent with the learner’s needs and difficulty; and (3) create a positive and supportive learning environment by responding to learners with mixed abilities in large classes. By adopting various online resources, multimedia-assisted instruction has become a standard method of teaching English (Hu & Yao, 2021).

However, most AWID focus on supplementing online resources to provide learners with information-rich materials for learning, and there seems to be little attention on the justification of omitting those materials in the coursebook. One possible reason might be the decision of team teaching to focus solely on Passage A from the selected units for in-class instruction. This represents a shift in mindset from teaching the coursebook itself to viewing coursebooks as tools for teaching, emphasizing incorporating of innovative and new teaching content from various online resources into the learning activities.

Moreover, applications of a product-oriented approach in creating and maintaining a constructive learning environment are common. As learners were chosen mainly from the relatively higher English proficiency level of the respective universities, it is worth noticing those lower-level English learners in terms of the suitability of the learning activities. It remains a question whether these learning activities in AWID are applicable to students with mixed abilities in large classes.

RQ4: What is the Golden Curriculum Instruction Design element regarding assessment?

It requires the ability to (1) choose practical assessment from a wide range of assessment types based on the principles of the assessment and the learning objectives; (2) give immediate formative assessment throughout the whole learning activity and timely summative assessment after class; (3) The awareness of using assessment to inform learning based on online-learning data and feedback to help learners become more autonomous and develop better language learning strategies; (4) the awareness of using assessment to reflect and improve teaching and learning for future instruction and (5) using online assessment tools for learner-learner, lecturer-learner assessment in a dynamic manner.

However, as most AWID emphasize the importance of using online assessment and lecturer-learner assessment, there seems to be cautious about the authenticity of the online learning data when implementing the evidence-based evaluation. Whether learners have watched the online micro lecturer effectively still requires the ULEFL to be competent to distinguish and assess appropriately with sufficient information literacy.

RQ5: What is the Golden Curriculum Instructional Design competency framework for ULEFL?

Based on the content analysis of the AWID, the framework of the Golden Curriculum Instructional Design Competency incorporates four perspectives:

a. Learning and Learner

To develop Golden Curriculum, it is recommended to UELFL be familiar with learning theories, such as constructivism, and practice the scaffolding approach in teaching. Secondly, it’s
critical to engage learners based on their characteristics. Thirdly, higher-order thinking skills, such as critical thinking skills should be developed with cross-cultural communication competencies to design better and implement Golden Curriculum. In addition, it requires a mind shift from surface learning to a deep approach to learning to create challenging yet feasible tasks tailed to learners’ characteristics.

\[b. \text{Learning Objectives}\]

Regarding learning objectives, there are four competencies required for ULEFL. Firstly, develop learning objectives based on need analysis. Secondly, develop a holistic mindset to integrate global, educational, and instructional goals into the teaching syllabus. Thirdly, adopt measurable action verbs for developing learning objectives, as Table four listed for learners to achieve. In addition, the ability to integrate real-life learning outcomes into learning objectives is also a unique feature of the innovative Golden Curriculum.

\[c. \text{Learning Activities}\]

ULEFL requires management competence to organize and maintain classroom activities as well as online ones. Firstly, using materials and online resources wisely and creatively is critical since the learning objectives are not solely based on the coursebook. Therefore, the ability to choose and adapt learning materials to fulfill the goals cannot be underestimated. Secondly, the ability to improve English speaking and writing skills based on reading activities is also a benchmark for ULEFL to update. Thirdly, creating a positive and supportive learning environment is crucial for the success of learning activities.

\[d. \text{Learning Assessment}\]

Among various assessment tools, the Golden Curriculum requires the ULEFL to be capable of choosing appropriate assessment types and giving immediate formative assessment and timely summative assessments to facilitate learning. One crucial aspect is the ability to inform learning based on online learning data, such as the learning data in the online learning platform Xuexitong. In addition, ULEFL needs to reflect on teaching for improvement in the next round of teaching, and improving information literacy, when using online assessment tools.

\[RQ6: \text{To what extent do the Cambridge English Teaching Framework help university English teachers improve their Instructional Design Competency?}\]

ULEFL may need to review more learning theories and second language learning theories for an instructional design suitable for the learning activities. More good measurable action verbs based on Bloom’s taxonomy or other instruction models for describing learning objectives, such as understanding and awareness, are relatively ambitious compared with analyzing and evaluating, and more teamwork and collaboration for team teaching.

\[\text{Conclusion}\]

This paper aims to develop the framework of Golden Curriculum instructional design competencies by analyzing the award-winning instructional design of the national English teaching contest. The instructional design competency framework can be an essential tool that provides a comprehensive and dynamic approach to instructional design for ULEFL. The framework is developed by a content analysis of award-winning instructional design using NVivo12 and the analytical tool of the Cambridge English Teaching Framework. It emphasizes the significance of
instructional design competency, which involves integrating learning and language-teaching theories, engaging learners, creating measurable learning objectives, utilizing coursebooks and online resources, being responsive to learners, and using assessment to enhance teaching and learning.

This framework serves as a reference for ULEFL to assess their current level of instructional design competency and identify areas for professional development. It also provides a checklist for teacher evaluation, which will enhance students’ academic achievement. However, future research is needed to evaluate the consistency and applicability of the instructional design in actual teaching scenarios. In conclusion, this instructional design competency framework is a valuable tool for ULEFL teachers, which will facilitate the development of the higher-ordered, innovative, and challenging Golden Curriculum to meet the needs of today’s learners. The framework can potentially enhance teacher development and student achievement. It could be an essential component of ULEFL teacher training programs for developing the Golden Curriculum in China.

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References


“Golden Curriculum” Instructional Design Competency Framework  
Yan, Sihes, & Zhang

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Appendices

Appendix A Table 4 Analysis of the Award-Winning Instructional Design Regarding Understanding Learners

<table>
<thead>
<tr>
<th>Category</th>
<th>Elaborations</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of Learners and teaching contexts</td>
<td>Beginners and advanced learners in large classes, a gap between positive learners and passive learners (2021C3)</td>
<td>1</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Understand learner characteristics to creative activities (2020C1), Generation Z, interest-driven, multi-task taker, higher learning expectations (2020B1) Exam-oriented (2021B1),</td>
<td>3</td>
</tr>
<tr>
<td>Learning preferences, difficulties, and needs</td>
<td>Elaborations</td>
<td>Freq</td>
</tr>
<tr>
<td>Learning System</td>
<td>Vocabulary</td>
<td>Sufficient foundation in vocabulary (2020B2)</td>
</tr>
<tr>
<td></td>
<td>Grammar</td>
<td>Sufficient foundation in grammar (2020B2)</td>
</tr>
<tr>
<td></td>
<td>Discourse</td>
<td>Lack of discourse concepts (2020B2), lack of the ability to read between the lines, insufficient textual analysis (2022A1)</td>
</tr>
<tr>
<td>Language Skills</td>
<td>Listening</td>
<td>Good listening ability (2021A1, 2021C3, 2022B1)</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>Good reading ability (2021A1, 2021C3, 2022A1, 2022C2)</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>Lack of writing ability (2020B1, 2020C2, 2021A1,2021C1, 2021C2, 2022A1, 2022C1); Good writing ability but weak argumentation (2022A1)</td>
</tr>
<tr>
<td></td>
<td>Lack of summarizing, analysis, and creative thinking ability (2020C3),</td>
<td></td>
</tr>
<tr>
<td>CCC</td>
<td>Need to improve (2021A1, 2021C1, 2022B1)</td>
<td>3</td>
</tr>
<tr>
<td>ICT Literacy</td>
<td>Recognize information searching skills (2020C3),</td>
<td>1</td>
</tr>
</tbody>
</table>
Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

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Abstract
Many primary school students have been exposed to gender stereotyping since they were young, with educators, parents, and their peers shaping their thoughts, behaviors, and their perceptions of gender. While several previous research studies have been done on the depiction of gender-stereotyped roles in Malaysian textbooks, very little has fully explored how stereotypical gender characteristics are assigned to the male and female gender, and how reinforcement of occupational gender roles is done through images and text in Malaysian primary English textbooks. This study seeks to investigate the reinforcement of gender stereotyping in Malaysian Primary English textbooks through images and text. The study addressed the following research question: What stereotypical gender characteristics are assigned to the male and female gender through the images and text incorporated in Malaysian English Primary textbooks? Using the Thematic Analysis approach by Braun and Clarke (2006), the results show that the themes obtained from the analysis were consistent with results from previous studies, which suggested that there was a biased characterization of the male and female gender, and those female characters were still underrepresented leading to the reinforcement of stereotypical gender roles. This study sheds new light on the reinforcement of gender stereotyping and provides important insights into the creation and development of primary English textbooks in Malaysia.

Keywords: gender stereotyping, images, primary English textbooks, textbooks, texts

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Introduction

Textbooks are among the most essential educational tools for teaching and learning as it plays a significant role in transmitting culture, apart from their primary function, which is to provide learning content, teaching and learning strategies, and language skills and assessments (Kaba & Abdullah, 2020). For primary school children in Malaysia, the habit of reading is mainly encouraged and inculcated in schools through school textbooks prescribed by the Ministry of Education Malaysia (Hamid, Yasin, Bakar, Keong, & Jalaluddin, 2008). Therefore, the content that these children learn concerning the world, other subjects, and themselves must be appropriately designed and curated. Moreover, the fundamental role of textbooks in the learning process is crucial, and it cannot be denied that they provide a stable and comfortable way to learn (Richards, 2009). This is because they fulfill several functions such as imparting educational knowledge to students, influencing their behavior and attitudes, exemplifying positive social and cultural interactions, and preparing the next generation to be knowledgeable about various subjects and ethical principles. (Hamid et al., 2008).

The Council of Europe (2011) defines gender as appropriate roles, behaviors, activities, and attributes that are socially constructed and assigned by society. The World Health Organization (WHO) supported this by adding that “characteristics of women, men, girls and boys”, and they include “norms, behaviours, and roles associated with being a woman, man, girl or boy, as well as relationships with each other” (p.16). On the other hand, United Nations International Children's Emergency Fund or UNICEF (2017) stated that gender stereotype would happen when specific attributes, characteristics, and roles are ascribed to people based on gender. It also involves associating traditional gender expectations with one’s assigned sex at birth.

The significant impact of textbooks on children’s mental has been acknowledged by previous research (Sadker & Zittleman, 2007). Understandably, visual images are fundamental in any language textbook. They are deemed as solid tools in building pupils’ learning relating to the real world that cannot otherwise be shaped in classroom activities (Canning-Wilson, 1999). Furthermore, visual representations in EFL textbooks depict places, situations, and personalities that will enable students to see what the actual world entails and improve their comprehension of the target language, culture, and worldview (Mendoza & Reese, 2001). This is because, since ancient times, man has always created visual representations of reality and used visual stimuli to transfer information (Domin, 2007). Today, our world is highly characterized by the popularity and control of images and visions as means of communication and transferring messages, ideas, and ideologies, where the image is a vital semiotic resource used to convey meaning (Jewitt, 2005). The teaching and learning process requires the application of visual aids because they support the effectiveness of teaching materials. Chavatzia (2017) reported that teaching and learning materials frequently reinforced gender stereotypes and that biases in gender and stereotypes were significant, especially in math and science textbooks, with images of women being severely under-represented.

While the vital role of textbooks cannot be denied within the context of education in Malaysia, previous studies done on textbooks in Malaysia have also proposed that gender
representations should be more equal in textbooks and that gender stereotyping ought to be reduced (Liew, 2007). Rosaldo (1974) claimed that the depiction of women in textbooks had placed them in a negative light, characterized as irrelevant and inferior to the male gender. Yasin et al. (2012) supported this by arguing that the gender characteristics of Malaysian males and females in textbooks were still mainly determined by traditional beliefs and practices. On the other hand, Yasin et al. (2012) proposed that more studies must be conducted on the analysis of the visual images found in textbooks and their impact on establishing gender awareness among primary school students in Malaysia. Among the prevalent issues was the confinement of women as homemakers to the domestic sphere (Yasin et al., 2012). Smith (1995) proposed that pupils in primary schools needed to be exposed to a positive representation of both male and female genders throughout their formative years.

Therefore, the key findings in this study may provide significant contributions to the creation and development of primary English textbooks in Malaysia:

1. Primary school students: Students will be exposed to textbook content that features gender characterization that is more balanced and fair, with an emphasis on reducing gender stereotyping. This will shape their minds and attitudes towards gender stereotypes and bias perceptions in gender.
2. Teachers or educators: Teachers or educators will be more alert and sensitive in identifying and dealing with gender-related issues in the classroom.
3. Curriculum developers: Curriculum developers will be able to use the findings in this study as a basis for designing gender-balanced content materials that suit and accommodate children’s cognitive and societal needs at the primary level.

This study seeks to investigate the stereotypical gender characteristics that are assigned to the male and female gender through images and text that are incorporated in Malaysian English Primary textbooks. Furthermore, it aims at exploring how gender-stereotyped occupations are being reinforced through the images and text presented in the textbooks.

Below are the research questions that were addressed in the study:
1. What stereotypical gender characteristics are assigned to the male and female gender through the images and text incorporated in Malaysian English Primary textbooks?
2. How are gender-stereotyped occupations being reinforced through the images and text incorporated in Malaysian Primary English textbooks?

To explore the reinforcement of gender stereotyping in Malaysian Primary English textbooks, the present study analyzed Primary Year Four, Year Five, and Year Six English textbooks which operate on the flipgrid digital platform. The following sections in this paper present reviews and discussions on previous studies, the research procedure employed for data sampling, collection and analysis, and finally share the findings of the study.
Literature Review

Common Gender Stereotypes

According to the report on gender stereotypes in education prepared by OECD (2022), the belief that females are more nurturing and better suited for occupations that provide professional care, such as nursing, teaching, and counseling, is common. This is because, in retrospect, women have been stereotyped as weaker, less capable of managing crises, and more emotional than the male gender (OECD, 2022). Rosaldo (1994) argued in his study that the portrayal of the female gender had been biased due to how they were portrayed as less interesting and irrelevant in textbooks. Bahiyah et al., (2008) supported this through their research study, which revealed that men were often depicted in a more significant domain while women were confined to the domestic sphere. Narahara (1998) concluded in her research that females were characterized as passive and immobile, whereas the character of the male gender pointed out their leadership and independence quality. Similarly, Yasin (2012) claimed that the representation of a positive female role model was almost absent in his study, as women were depicted in minor and marginal roles while the boys were portrayed as having intellectual and decision-making skills. In a recent study by Benlaghrissi (2023) on gender stereotypes in Moroccan EFL textbooks, it was reported that almost all images in the textbooks “show men in higher-ranking positions, such as doctors and engineers” (p.10), whereas “women were more depicted in non-valued tasks” (p.11), which revolved around spending their free time with friends, family members or relatives.

Previous Studies on Gender Stereotypes in Textbooks

In the context of education, apart from serving the purpose of illustrating teaching and learning materials, there is a pressing issue concerning the images that represent the male and female gender in textbooks (Smith, 1995). He argued that ensuring a positive representation of males and females throughout their formative years is essential. However, in the context of education in Malaysia, the gender characteristics of males and females in textbooks are still heavily influenced by traditional beliefs and practices (Shamsuddin, Keong, & Hamid, 2016). Lim and Chan (2012) proposed this by stating that in textbooks, female characters were often confined to doing indoor activities and exhibiting passiveness. This scenario is evidenced in the findings of Benlaghrissi (2023), which pointed out that girls were typically depicted to be engaged in leisure activities like sleeping, shopping, and watching TV.

Yasin et al., (2012) revealed that a gender imbalance in favor of males in their research study on a Year One Primary English textbook in Malaysia. The study, which emphasized visual analysis, discovered that the stereotypical gender roles as wives, mothers, and caregivers were assigned to women, and the domain relegated to women remained in a private sphere. On the contrary, male participants were mainly represented in the outdoor setting engaging in sports activities such as cycling, playing basketball, and football.

In a study by Hamid et al., (2008) on linguistic sexism and gender role stereotyping in Malaysian English Language textbooks, the authors explored the occurrence of sexism, linguistic
sexism, and sex-role stereotyping through the frequency of appearances or invisibility of characters, representations of characters in social, occupational and political activities and their personalities. The corpus of this research study consisted of 21 textbooks that were taken from primary school (Years one to six) and English language secondary school textbooks (Form one to Form five). This study was segmented into two phases that began with creating the main corpus database, followed by an analysis of content. The data were later analyzed using computer software (Wordsmith 4) and further interpreted using Fairclough’s (1989) three-stage critical discourse analysis. The findings of this study indicated that male dominance was being perpetuated and promoted in the books, and the portrayal of characters in social, occupational, and political activities favored the male characters. For example, men were showcased as risk takers, leaders, and more independent, while at the same time, the female gender appeared to be more dependent and subservient in the textbooks selected in the research study.

On the other hand, the research by Sovič and Hus (2015) shared some insights into the embedment of gender stereotypes in textbooks. In the research study, the content of three English textbooks for young learners in Slovenia was analyzed, and the findings revealed that the male characters in the books were often portrayed discussing and showcasing leadership and action. In contrast, the female characters were amplified to be girls who were humble and obedient. The study also claimed that females were not adequately represented as being independent or active. Instead, they were portrayed as being subservient and passive. The results from the research also identified several significant findings which showed the dominance and dynamic portrayal of the male characters compared to the female characters.

In a study on gender-stereotyped images of occupations in Malaysia Primary English Textbooks, Shamsuddin et al. (2016) argued that issues about gender stereotypes incorporated in primary English textbooks needed to be addressed. Images extracted from an English Primary textbook in Malaysia were collected and analyzed for their representational, interpersonal, and compositional meaning using van Leeuwen’s (2005) explanation of semiotic inventory. The findings in the research study reported that roles that were assertive, independent, and competitive such as farmers, storekeepers, firefighters, and garbage collectors were assumed by male characters. These male characters were shown to be having discussions and making decisions as opposed to female characters, that were depicted to be less agentic. The findings in the study also pointed out that apart from having specific qualities, the male characters in the textbooks were also given more professional roles than the female characters.

In a study by Kostas (2021), textbooks from two primary schools in Athens were analyzed regarding their gender representation, and a qualitative research project involving 80 participants (40 boys and 40 girls) was conducted. The findings revealed that the number of female characters was fewer than the male characters, and that stories about women were shorter in length compared to those of men. Besides that, stereotypical roles and professions for men were associated with dominance, while the roles and occupations for women were mainly related to caregiving tasks. On the rare occasions that women were portrayed as professionals, they were depicted as assuming
the stereotypical ones like nurses, teachers, and actresses. Moreover, representation in the
textbooks analyzed in the study also reported that women were often reduced to performing
household chores like sewing and cooking.

Yong et al., (2022), who conducted a study on gender stereotypes involving a Form 5
Malaysian English textbook, argued that ensuring textbooks were free from gender stereotyping
was important. Due to that, the aim of their research targeted at identifying gender representation,
and exploring perpetuation of gender stereotyping in the textbook. By employing Fairclough’s
(1989, 2001) three-dimensional model of discourse analysis, which are text analysis, processing
analysis and social, societal, and cultural background for data analysis, the authors disclosed that
there was a significant bias in terms of the representation of lifestyle between both genders.

In a more recent study on gender stereotypes in Chinese junior high school English
textbooks, Ouyang (2022) highlighted that significantly few female roles depicted in the textbooks
were linked to Science, Technology, Engineering, and Mathematics (STEM) subjects, thereby
perpetuating the notion of girls being less competent in STEM. Along the same lines, the research
revealed that only male characters were presented within the political domain. In contrast, girls
and women were characterized through their abilities and contributions in assuming roles as
mothers, wives, or grandmothers (Ouyang, 2022).

Although several studies have addressed the presence of gender stereotyping in Malaysian
school textbooks and its impact on students, the analysis of images and text in Malaysian Primary
English textbooks concerning stereotypical gender characteristics describing the male and female
gender and how gender-stereotyped occupations are being emphasized on men and women have
not been done. Therefore, this study investigated the stereotypical gender characteristics assigned
to the male and female gender through images and text incorporated in Malaysian English Primary
textbooks. Furthermore, it was also done to study how gender-stereotyped occupations were
reinforced through the images and text presented in the selected textbooks.

Methodology

Semantic and Latent Themes

It is important to note that the centrality or importance of a theme does not necessarily
represent the frequency of its appearance within the data, but rather provides essential insights that
address the research questions. The semantic themes which emerged in this study illustrate the
explicit or surface meanings of the data items gathered from the observation, while the latent ones
represented underlying meanings and assumptions that are deeper (Boyatzis, 1998). Table one
highlights the differences between semantic and latent themes by Braun and Clarke (2006):
Table 1. Semantic and latent themes

<table>
<thead>
<tr>
<th>Semantic</th>
<th>Latent</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Themes are identified based on the explicit or surface meanings of the data.</td>
<td>- Themes are identified or analyzed based on the underlying ideas and assumptions in the data.</td>
</tr>
<tr>
<td>- The thematic analysis process begins with describing images and texts, followed by organizing and establishing the significant themes that emerge from the data.</td>
<td>- The thematic analysis process is based on interpreting text, images, and patterns, followed by organizing and establishing the significant themes that emerge from the data.</td>
</tr>
<tr>
<td>- The data is summarized and interpreted, and an attempt to theorize the significance of the patterns and their broader meanings and implications is performed.</td>
<td></td>
</tr>
</tbody>
</table>

Materials and Sampling Procedure

The data sampling method was purposive sampling, and the samples were taken from national school Primary Year 4, Year 5, and Year 6 English textbooks. The rationale for selecting Year 4, Year 5 and Year 6 textbooks was due to the themes in the books that largely revolved around occupations, indoor and outdoor activities, and the incorporation of contemporary literature sections as opposed to other irrelevant themes like animals, colors, shapes, and numbers which were emphasized in Years 1 to 3. The data obtained were from four Malaysian English Primary textbooks which operate on the anyflip digital platform.

Research Procedures

Following the sampling procedure, the data obtained from the selected textbooks were grouped according to their respective categories (Primary Year 4, 5 and 6), and they were later analyzed according to separate themes, adopted from Braun and Clarke (2006).

Data Analysis

Thematic analysis by Braun and Clarke (2006) was employed to analyze the images and texts selected for this study. The method adopted in this study leaned more towards a recursive rather than a linear process where one subsequent step followed one another. Patton (1990) supported this by stating that some flexibility should be applied in the analysis to suit the research questions and data. In the recursive process, the steps in the analysis moved back and forth as needed throughout the steps of reviewing and defining themes.

Table two illustrates the six (recursive) steps:

<table>
<thead>
<tr>
<th>Step 1</th>
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<th>Step 3</th>
<th>Step 4</th>
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Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

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Getting familiarized with data  Generating initial codes  Searching for themes  Reviewing themes  Defining and naming themes  Writing the report/result


In this study, the authors addressed their research objectives and research questions that could assist them in recognizing and establishing solid themes that emerged from the data collected. To determine whether a specific pattern is “prevalent” enough to qualify as a theme, Clark and Kitzinger (2004) claimed that prevalence could be confirmed through the frequency of a specific pattern that resurfaces throughout the data, the number of times a specific character uttered certain keywords or showcased repeated stories across the data set.

Findings

Stereotypical Gender Characteristics Assigned to the Male and Female Gender

To address the following research questions in the study, this section presents the analysis of the data collected from the selected textbooks. It also provides an in-depth discussion of the results obtained. The semantic themes that were identified from this section were based on the surface or explicit meanings found in the images and text. Following that, they were organized and established into significant themes:

Research question 1: What stereotypical gender characteristics are assigned to the male and female gender through the images and text incorporated in Malaysian English Primary textbooks?

Overall, the results presented below addressed the first research question, which studied the stereotypical characteristics assigned to the male and female gender through the images and text found in Malaysian English Primary textbooks. To respond to the question, samples taken from the selected textbooks were analyzed to construct semantic themes based on the explicit or surface meanings of the data. The following emergent themes were identified from analyzing images and text in the selected textbooks for this research study.

Female Gender Depicted as Weak, Gullible, and Powerless

In the Year six Primary English textbook, the Language Arts section of the English textbook consisting of images and text was analyzed. In Figure one, the female character or the “daughter” was being forced to submit to the mighty king, whose character appeared to be more dominant and feared by her. This can be seen in his speech bubbles, where the mother of the young, helpless lady voluntarily “offered” her to the king, and the young lady was not prescribed any agency to decide, but to just remained subservient. This can be seen in the fourth speech bubble, where the mother described her daughter’s ability to weave beautiful clothes and spin straw into gold to the king. However, instead of refusing or fending for herself, she said that she did not know what to do. Towards the end of the conflict, the young lady was positioned on the floor, crying and depicted as being helpless.
Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

Asmuni

Figure 1. Female character being handed over to the King (Adopted from English Year 6 SK, 2015, p.112)

In the following selection (Figure two), the portrayal of the same female character being gullible and powerless was further emphasized through her constant crying, which can be seen in the image below. The text accompanying the image revealed that the lady allowed her fate to be decided by the king, and she was willing to surrender her gold necklace if she was allowed to leave the palace and go home.

Figure 2. Female character surrendering her fate to the King (Adopted from English Year 6 SK, 2015, p.122)

A similar theme also emerged from the Year five English Primary textbook (SK,) where the images and text that made up the Listening and Speaking section of the book presented a narration of a helpless and powerless princess who had to wait for a prince or a male character to come and rescue her after she was kidnapped and locked in a dungeon. In this section, the princess or the female character was not given any agency or opportunity to showcase her ability to think, speak...
up or even engage in any problem-solving act. On the other hand, the prince or the male character was placed on a more superior level, where he embodied the hero archetype. It is worth noting that the stereotypical characteristics of the male characters (king and prince) in both sections of the textbooks were depicted as more powerful and brave and identified through their agentic qualities as opposed to the female gender, who was presented as the opposite.

Figure 3. Female character waiting to be rescued (Adopted from English Year 4 SK, 2013, p. 50)

In the following reading section taken from the same textbook, the images and text of the reading article implied to the readers that regardless of any situation, a woman would only be successful in a crisis even with the help of the opposite gender, or in this context, male mythological creatures, or gnomes (as depicted in Figures four and five). As presented in the third paragraph in Figure three, the kind, helpful, and beautiful princess who lived with fairies and elves was characterized as helpless and she could not do anything to save the people in her village. Feeling determined to help the villagers, she resorted to seeking help from male gnomes.

Figure 4. A princess seeking help from gnomes (Adopted from English Year 4 SK, 2013, p. 51)
This was strengthened further by the descriptions of the male gnomes in Figure Four, who planned an attack on the monsters because they felt sorry for the princess. Even though there was a trace of empowerment given to the princess, revealing that the princess and the male gnomes eventually released all those who were captured, there was no descriptive word or adjective used to describe the character of the princess. On the other hand, as evidenced in the last paragraph of Figure Five, the male gnomes were characterized as “brave”.

![Figure 5. A princess and brave gnomes freed prisoners (Adopted from English Year 4 SK, 2013, p. 52)](image)

**Male Gender Depicted as Smart, Brave, and Strong**

Because gender stereotypes are often reinforced by expectations in school, children in their formative years might perceive these gender stereotypes as mandatory, and this can make them become less tolerant of any behaviors that do not agree with the stereotypes that they have observed (Brussino & McBrien, 2022).

In the Year Five (SJKC) Primary English textbook, two different male characters presented in the Reading and Grammar section were portrayed as intelligent, brave, and strong. In contrast, the young lady and the princess (Figures three, four, and five) were mainly illustrated as helpless, gullible, and powerless, as revealed in the previous findings. However, another “prince” or male character in this section was given attributes that ultimately outlined the difference in characteristics between both genders. The Reading section incorporated images and text which illustrated the prince assuming the role of a leader, where he is portrayed being actively involved in decision-making and problem-solving during a theft that took place in the village. This depiction is evidenced in Figure six, where the prince’s image is shown as strong and complemented by Figure seven, where the male character or the prince is seen discussing and giving orders to his followers. Besides that, the last sentence confirms the characteristic given to the prince, where the word “wise” is used to describe him.
Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

Asmuni

Figure six below shows the depiction of the “strong and powerful prince”, which marked a significant difference between his character and the young lady (Figures one and two) and the princess in Figures three, four and five.

![Figure 6](image1)

**Figure 6.** Male character being a strong and powerful prince (Adopted from English Year 4 SK, 2013, p.80)

In the image below (Figure seven), it was explicitly stated in the first excerpt that the prince, upon finding a note, chose to keep it secretly. This narration about the prince clearly described his character as intelligent and able to solve problems, which was set out to be completely different from the portrayal of the female characters in Figure one to five. The last line of the final excerpt revealed the adjective “wise” (as underlined in the figure) to further affirm and enhance his character.

![Figure 7](image2)

**Figure 7.** Male character being a leader (Adopted from English Year 4 SK, 2013, p. 84)

The Grammar section in the textbook continued to emphasize the stereotyped characteristics of the male gender by showcasing how men have been prescribed to possess problem-solving skills as opposed to the female gender. If the two female characters (the young lady and princess) were depicted as helpless and submissive in the previous examples while the male characters remained strong and decisive, the character of the Chief Minister in Figure eight only further reinforced the stereotype of men being intelligent, brave, and strong. In the dialogue between the Chief Minister and the farmer, the Chief Minister convinced the farmer to share his problem with him...
and told him that he could help. This depiction was then strengthened in the final line of the dialogue, where he claimed that solving the farmer’s problem was easy and later offered to share his expertise. The conversation between the farmer and the chief minister is shown in Figure eight, and the key ideas have been circled.

![Male character being a wise problem-solver](Adopted from English Year 4 SK, 2013, p. 88)

**Figure 8.** Male character being a wise problem-solver (Adopted from English Year 4 SK, 2013, p. 88)

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**Reinforcement of Gender-Stereotyped Occupations**

**Research question 2:** How are gender-stereotyped occupations being reinforced through the images and text incorporated in Malaysian Primary English textbooks?

The latent themes identified from this section were based on the analysis of images and text from the selected textbooks that were interpreted, followed by generalizing significant patterns that emerged from the data.

The purpose of this section is to address the second research question on how gender-stereotyped occupations are reinforced in the English primary textbooks. The following themes were identified from the analysis based on the underlying ideas found in the data.

**Gendered Representation of Chefs and Homemakers**

Although gender-stereotyped occupations were deemed as complementary in the sense that each gender balances out its weaknesses and strengths (Jost & Kay, 2005), primary school children who are in their formative years would perceive this scenario as an expected requirement and will then react against the norms that they were exposed to due to the limitations in their cognitive development (Su et al., 2021). Unfortunately, gender stereotypes still happen at home, in schools, and society (OECD, 2012). Examples of gender stereotypes related to occupations are explicitly seen in the following images (Figure nine) from Year six (SJKC) English primary textbooks, which provided comparisons between the occupations assigned to the male and female characters. In the collection of occupations shown in the figure below, there seemed to be distinct occupations...
between men and women involving culinary skills or cooking. For instance, though both genders were cooking, the two different males were characterized as chefs on two continuous pages (pages 65 and 66). At the time, women were depicted as homemakers who were cooking for their families (Figure nine). It is worth noting that, though both seem similar, they are different. According to Cambridge English Dictionary (2022), a chef is a trained and skilled cook who works in a hotel or restaurant. In contrast, a homemaker is a person who does housework and often looks after children instead of earning money from a job (Cambridge Dictionary, 2022). To elaborate, the context in which these images are presented reinforces gender-stereotyped occupations that could potentially impose the idea on primary school children that within a domestic sphere, a homemaker is a woman who prepares food for her family, but a chef is an exclusive profession for the male gender. This context could also potentially impose the idea on students that cooking at home or preparing meals for the family is exclusively for women while being a skilled, professional chef is an occupation for men.

This finding is supported by Chen et al., (2020), who revealed that there was a striking difference in the representation of male and female chefs, in which the latter were underrepresented, and mainly depicted as homemakers in a domestic setting. Other previous studies also reported that the dominance of male chefs could be seen in cookbooks where stereotyped depictions of male and female chefs were displayed (Johnston, Rodney, & Chong, 2014; Matwick, 2017). According to Johnston et al., (2014), female chefs were given the roles of caregivers and domestic workers while male chefs were portrayed as knowledgeable, professionally skilled and hardworking. In other words, male chefs were mainly shown as masculine, intellectual, and talented. In contrast, female chefs were presented as feminine, and caring domestic cooks.

Figure 9. Chef vs homemaker (Adopted from English Year 5 SJKC, 2015, pp. 29, 71 and English Year 6 SK, 2015, pp.65, 66)
Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

Asmuni

Stereotypical Masculine Occupations

A research study by Hadjar, Krolak-Schwerdt, Priem, and Glock (2014) reported that gender-stereotyped occupations could reinforce workforce separation wherein female students would tend to become nurses or venture into the teaching profession while male students would prefer occupations that are characterized by power or authority, status, and prestige. A reflection of this report can be seen in Figure 10 of the Grammar section in Year six (SJKC), where on two separate pages, the occupations of a police officer and doctor were assigned to the male gender. In the first image of Figure 10, two male police officers were seen investigating a boy, and in the next column, another male police officer was portrayed doing the same. This situation resonates well with the findings in Hadjar et al., (2014) study, which indicated gender stereotyping in occupation could lead to the belief that occupations that required authority, status, and prestige belonged to the male gender. Another example can also be seen in the same figure, where the image showcased a male doctor examining a patient. This image, though seems subtle and harmless, may strenghten a common stereotype that associates prestigious, high-paying jobs like that of a doctor with men, reinforcing traditional gender roles.

![Figure 10. Male police officers and doctors (Adopted from English Year 6 SJKC, 2015, p. 67, 93)](image)

Underrepresentation of Women in Certain Occupations

In the Listening and Speaking section of the same textbook, the headlines in the newspaper revealed an underrepresentation of women in occupations or professions that required bravery, critical thinking, problem-solving, and leadership skills. This is evidenced in the headlines of the news in Figure 11, which reported “Postman helps the police” (headline 1), “Taxi driver rewarded for returning a bag of jewellery” (headline 2), and “Manager honored for his leadership” (headline 3). Within the contexts of the headlines provided in the newspaper, jobs that demanded bravery and problem-solving skills were performed by male characters (as shown in headlines 1 and 2), while a manager who received an award was honored for his leadership skills (headline 3) was also granted to a male character. As presented in the text and images in Figure 11, no female representation was included in all three pieces of the news, which incorporated the occupations of postman, taxi driver, and manager. Female characters, however, were presented in headlines that illustrated a woman as a nurse who was “selfless” (headline 4) and a little girl who was praised for...
having an “honest heart” (headline 5). In summary, it can be established that the gender-stereotyped occupations for men were classified as more demanding and challenging regarding soft skills and talent required for the jobs. On the other hand, the stereotyped occupations for women were limited and very much confined to indoor settings and domestic spheres, with honesty, selflessness, and caregiving qualities being expected from them.

Figure 11. Underrepresentation of women in certain occupations (Adopted from English Year 6 SJKC, 2015, p. 102)

Discussion

The primary goals of the study were to address issues concerning gender stereotyping in Primary English textbooks and to gain some insights into the stereotypical characteristics assigned to the male and female gender through the images and text in the selected textbooks for the study. In addition, it also aimed to investigate how gender-stereotyped occupations are being reinforced in textbooks.

The findings in the study indicated that the themes obtained from the analysis were consistent with results from previous studies, which suggested that the content in some textbooks in the Malaysian national curriculum was deemed to be male-dominated (Hamid et al., 2008) and that female characters in textbooks were still underrepresented (Yasin et al., 2012) leading to the reinforcement of stereotypical gender roles Yong et al., (2022). Another finding that resonated well with the results of this study was the insights shared by Sovic and Hus (2014), who concluded that females were not fairly presented possessing leadership skills in the books but instead being portrayed as subservient and passive. On the other hand, the male gender in the study was characterized as proactive and independent.

While not all the results obtained from the study were significant, the overall findings in this study have highlighted some essential key points that could potentially contribute to the direction of future studies concerning the issues of gender stereotyping embedded in the Malaysian national curriculum. For example, despite previous studies proposing the removal of gender stereotypes from primary textbooks, the result of the first research question pointed out a marked prevalence of gender stereotypes. Female characters were still depicted as weak, gullible, and helpless, waiting to be rescued while having little to no agency to empower themselves. On the
Reinforcement of Gender Stereotyping in Malaysian Primary English Textbooks

Asmuni

contrary, the male gender embodied characteristics which remarkably placed them in a superior position, displaying bravery, leadership, and problem-solving skills. The second research question, on the other hand, analyzed how the images and text included in the textbooks contributed to the reinforcement of gender stereotypes in various occupations. The themes which emerged from the analysis revealed that women were still underrepresented in male-dominated professions which were set outside a domestic sphere and required problem-solving, leadership, and critical thinking skills, like doctors, police officers, taxi drivers, and managers. Another significant finding from the analysis indicated that there seemed to be a polarization of chefs and homemakers, with the male gender appearing as chefs in separate sections of the textbooks. In contrast, the role of homemakers preparing meals for the family was assumed by women.

It is worth noting that the female gender is still being portrayed as the supporting role next to their male counterpart, mainly as mothers or wives. In the family setting, females are still associated with the role of nurturer or caregiver, working alongside males who were shown as the sole breadwinners in the family. It can be established that the curriculum writers and graphic designers have not steered away much from placing importance on male characters to highlight their superiority in the public sphere while minimizing the significant role of the female gender.

Limitations and Future Research

Although the research study consisted of limited samples which were only primary English textbooks of Years four to six, it might be argued that they were not substantial enough to be generalized, though consistent results from this study matched the findings from previous studies. This implies that if a more significant number of samples were to be analyzed in future research, more established and unified conclusions could be drawn to contribute to the field of this research topic. Therefore, it is proposed that other studies are done to determine whether their results could reflect and complement the findings of this study, and later offer further improvements. By expanding this study, the issue of gender stereotyping involving male, or female-dominated occupations, misrepresentation and underrepresentation of genders and their characteristics can be reduced or avoided in textbooks for schools in Malaysia, particularly at the primary level. Properly addressing this issue is very important as the reduction or elimination of gender stereotypes in textbooks would shape and guide children in their formative years to behave freely, acquire skills and decide on their career options based on personal preferences, not based on societal, cultural, and traditional beliefs.

Conclusion

In the earlier sections of the study, a discussion on the context of the problem, the background of the study, and previous research done on the topic were presented in detail. The purpose of the current study was to examine how gender stereotypes were perpetuated in Malaysian Primary English textbooks through the use of images and text. The most significant finding that has emerged from the analysis is that through the samples that were selected and
analyzed, gender stereotypes continue to be ingrained and integrated into the textbooks, as evidenced in the grammar, reading, listening, and speaking sections. Furthermore, the research has also revealed that gendered representations of certain occupations were subtly perpetuated. In contrast, a striking underrepresentation of women in specific jobs scopes appeared to be depicted in the textbooks.

Designing educational materials and teaching resources is a challenging task, and deciding on the content creation of textbooks is equally complex due to the bearings they have on children’s cognitive and societal development, the way they perceive the world at large, and how they carry themselves in the presence of the opposite gender. One of the ways to ensure that teaching and learning materials are designed and created to suit children’s cognitive and societal needs is by promoting gender equality and challenging gender stereotypes. It is of paramount importance that this is effectively implemented through the creation of school textbooks. Internationally, among others, the Council of Europe (2019) proposed that textbooks and the materials used to teach students at all school levels should be examined and evaluated for any sexist language, illustrations, or gender stereotypes. It was also recommended that the textbooks are revised to ensure that gender equality is promoted (Council of Europe, 2019).

Although the sample drawn for data analysis was small, the results strongly indicated some interesting and significant findings which supported and complemented the findings from previous studies. The results from this study have significantly provided further evidence to strengthen the claim that gender stereotyping is still prevalent in primary English textbooks in Malaysia. Therefore, the findings in the study can be utilized by policymakers, curriculum planners, and academicians as a basis for them to design gender-balanced content materials for school students in the future, particularly those who are at the primary level. As stated by Smith (1995) in the earlier chapter, pupils in primary schools needed to be exposed to a positive representation of both male and female genders throughout their formative years. It is highly recommended that the content in the form of images and text contain none, or if not, a reduced amount of gender stereotyping and the incorporation of a more balanced gender representation of both genders in terms of characteristics, occupations, and other gender-stereotype elements are introduced. Understanding and recognizing gender stereotypes are keys to identifying and developing promising policies and practices for all students.

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Asmuni


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Written Corrective Feedback Scientometric Review (1987–2022)

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Abstract
Written corrective feedback is widely used in language learning and teaching, and related studies have attracted significant attention in recent years. Through analysis and visualization of 497 articles indexed in the Web of Science core collection over the past 35 years using CiteSpace, this scientometric review aims to explore the developmental stages, involved disciplines, geospatial fingerprint, main research streams, and emerging research trends of written corrective feedback. The following stages were identified based on the timeline of publications and citations: the sprouting phase (1987–2005), the fluctuating phase (2006–2016), and the explosive phase (2017–2022). The interdisciplinary trend toward written corrective feedback becomes increasingly prominent throughout each stage, and its primary disciplines range from linguistics and cognitive science to psychology and computer science. The primary research contexts for written corrective feedback research are ESL and EFL; countries with multiple coexisting language variants have prioritized research in this field. Existing studies have witnessed a shift from quantitative to qualitative research, and case studies focusing on individual differences are emerging as a newer research frontier. As one of the first few scientometric reviews of written corrective feedback since the phrase first appeared as a combined index term, this study is significant as a reference for comprehensively understanding the intellectual background, dynamics, and evolution of this research field.

Keywords: CiteSpace, co-citation, language learning, scientometrics, written corrective feedback

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Introduction

Written Corrective Feedback (WCF), an essential component of instructed language acquisition, assists language learners in noticing gaps in their knowledge, improving their language production accuracy, and identifying their learning objectives (Barrot, 2023; Chen et al., 2022; Moradkhani & Mansouri, 2023; Shen & Chong, 2023). Existing studies have conducted extensive, in-depth discussions on the effectiveness of WCF and what factors mediate the effects of WCF, but there are still spaces to be explored. First, numerous empirical studies on the subject show controversial findings (Lee, 2019; Li & Vuono, 2019; Patra et al., 2022; Yu et al., 2021); relatively few articles provide a review of the field, but it is crucial to investigate its current state and clarify future research trends. Second, most of the reviews in the literature use traditional approaches (Cao & Mao, 2022; Li & Vuono, 2019; Zhou et al., 2022), but few use scientometric approaches, which are suitable for large literature volumes and complex research topics (Chen et al., 2014). Third, a limited number of studies have employed a visualization approach, as most have primarily concentrated on Second Language (L2) writing or have restricted their scope to a specific timeframe within an artificial context rather than employing a systematic selection procedure (Miao et al., 2023). However, WCF research encompasses not only L2 writing instruction but also instruction in first language (L1) grammar and writing (Biber et al., 2011; Bitchener & Ferris, 2012; Sinha & Nassaji, 2022). Therefore, this article aims to conduct a scientometric review of publications on WCF in a comprehensive context, incorporating the timeframe from 1987, when the term “written corrective feedback” first emerged as a unified phrase in the Web of Science (WOS) core collection, to 2022.

This review comprises analysis and visualization of the development stages, involved disciplines, practicing countries (regions), main research streams, and emerging research areas of WCF research. It aims to review WCF research from a broader, more diverse, and more systematic approach, which can provide additional research value to the traditional review approach. The research questions addressed in this review are:

1. What are the research status and evolutionary characteristics of WCF?
2. Which disciplines are involved in WCF?
3. What is the geographical distribution of articles on WCF?
4. What major themes emerge in WCF research?
5. What trends are emerging in the field of WCF?

Literature Review

Written Corrective Feedback refers to all written comments or feedback aimed at rectifying the errors in language learners’ language production (Kang & Han, 2015; Kurzer, 2018). Its effectiveness began to be researched in L1 writing and grammar (Knoblauch & Brannon, 1981; Leki, 1990) and was then widely researched in English as a Foreign Language (EFL)/English as Second Language (ESL) contexts (Abdullah et al., 2021; Aknouch et al., 2022; Cho & Kim, 2022; Zabihi & Erfanitabar, 2021). Despite being widely used in teaching practice, the efficacy of WCF remains controversial (Cho et al., 2022; Shin, 2022). Supported by Schmidt’s (2011) noticing hypothesis, the debate between Truscott (1996) and Ferris (1999) over the efficacy of WCF in the mid-to-late-1990s brought research on WCF to the forefront. Truscott (1996) claimed that “grammar correction has no place in writing courses and should be abandoned” (p. 328). While some scholars supported this view (Kepner, 1991; Polio et al., 1998), others, represented by Ferris (1999), refuted it through many empirical studies (Bitchener & Knoch, 2008; Guenette, 2007;
Other debates in the literature revolve around the applicability of WCF to all types of writing errors and the comparative effectiveness of different types of WCF in enhancing learners’ writing accuracy (Kim et al., 2020; Shin, 2022; Zabihi & Erfanitabar, 2021).

The conceptual framework of WCF is complex, and one manifestation of that complexity is the diversity of its categorical dimensions. Currently, the classification of WCF into direct and indirect WCF is one of the more accepted classification methods (Chandler, 2003; Ellis et al., 2008; Li & Roshan, 2019; Shintani et al., 2014). Direct WCF means more advanced language users (e.g., L2 teachers) not only point out mistakes in students’ writing but also provide them with the correct expressions. Indirect WCF, on the other hand, means that although errors are pointed out via underlining, circling, or another method, the corresponding correct forms are not provided (Shin, 2022). Concerning the time of WCF application, a classification beyond direct and indirect has been proposed (Kim et al., 2020): asynchronous WCF (AWCF) refers to the feedback provided outside of the classroom once the writing process is completed, while synchronous WCF (SWCF) pertains to the error correction provided to students who are still engaged in a writing task.

Due to its contextual complexity, WCF is vulnerable to various external factors (Lee, 2013). Research has shown that the ultimate effectiveness of WCF is determined by the contextual and affective factors of teachers and learners (Goldstein, 2004; Storch & Wigglesworth, 2010). Previous studies from the perspective of L2 teachers follow a second language acquisition (SLA) perspective to explore the effects of teachers’ WCF and other feedback strategies (Ferris, 2010; Mujtaba et al., 2020). Li and Roshan (2019) investigated two groups of teachers and the focuses of their respective feedback, finding that two knowledge categories—beliefs about the subject matter and knowledge of the English language—are closely related to the feedback focus. More recent studies focus on how L2 learners’ individual differences and subjective motivations affect the efficacy of WCF and how WCF may negatively affect their academic emotions (Alharbi, 2022; Chen, 2022; Cheng & Zhang, 2021). L2 learners were found to consciously, intentionally, and strategically choose whether to engage with or solicit WCF based on cost and value calculations (Papi et al., 2020).

WCF has been extensively researched in second or foreign language learning and has become a topical issue in L2 writing. In addition to the complex construct of WCF, its interdisciplinary integration with linguistics also provides various new directions for WCF research. Existing research on WCF is mainly empirical, and due to numerous mediating factors, academia has not reached a consensus on its effectiveness. Therefore, a comprehensive review is needed to establish a systematic research paradigm and a solid theoretical foundation in the field.

**Method**

The research method utilized in this study is primarily based on the theory of mapping knowledge domains in scientometrics. This approach combines applied mathematics, graphics, information visualization technology, information science, and metrology. By employing these interdisciplinary techniques, researchers can effectively visualize one research topic’s core structure, development history, frontier fields, and overall knowledge framework (Vogel, 2014).

**Data Source**

This study utilizes data from the Web of Science (WoS) core collection database, which is the primary journal citation index database within the American Institute for Scientific Information (ISI) database. The WoS database consists of high-quality journal articles that undergo rigorous
peer review and have a global impact (Guo, 2022; Roemer & Borchardt, 2015). To further ensure the quality and relativity of the literature in the database used for the visual analysis, this review selected publications from the WoS core social collection, including Social Science Citation Index (SSCI) and the Arts and Humanities Citation Index (AHCI). SSCI is a multidisciplinary and comprehensive citation database that covers reputable social science journals in different countries and regions; AHCI is a critical periodical abstracts index database in the arts and humanities field, with data collected from 1975 to the present.

Our research focused on published articles and review articles of WCF research. With “written corrective feedback” OR (“corrective feedback” AND “writing”) OR “written error correction” OR (“error correction” AND “writing”) OR (“error feedback” AND “writing”) as search strings, topic retrieval was chosen to ensure all WCF studies included in the SSCI and AHCI databases were covered as best as possible. The period in this study was set between 1987 and 2022 since WCF research was first searchable in 1987. After manually verifying their relevance to WCF research and deduplication analysis, 497 publications with English as the writing language were retrieved as the analysis object to establish the data set in the current study.

**Research Instruments**

The CiteSpace 6.1 software developed and updated by Chaomei Chen was adopted in the current study to analyze and visualize the core structure, development history, frontier fields, and knowledge structure in different dimensions, such as distance, relationship, timeline, and overlay (Chen, 2017). Since its publication in 2004, CiteSpace has found extensive application across diverse disciplines. Numerous review studies in the field of linguistics field have started to use CiteSpace to understand the development progress and research frontiers of a specific research topic within the discipline (Guo, 2022; Jiang & Fan, 2022; Lim & Aryadoust, 2022; Wang et al., 2023).

**Results**

**Research Development Stages**

The number of publications is an important index to indicate the development trend of a particular field in a specific period. When a graph is used to depict the data, the historical development in a field is shown more intuitively, which has great value when analyzing the development trend of a certain field and predicting its future development (Guo et al., 2022). A stable number indicates the field has entered a bottleneck and the difficulty of innovation has increased; an increasing number indicates the field is active in that year; and a decreasing number indicates the motivation for innovation in the field is insufficient. Based on 497 publications related to WCF retrieved from the WoS for this study, the annual distribution of literature and citations in this field was mapped (in Figure One) to display the development trend visually. In general, WCF research has progressed through three stages: the sprouting phase (1987–2005), the fluctuating phase (2006–2016), and the explosive phase (2017–2022).
The Sprouting Stage (1987–2005)

The emphasis on WCF initially emerged during this stage in English writing classes, where the error correction concept was formally introduced. At that time, this concept was commonly known as grammar correction and relatively consistent. Scholars and L2 teachers also agreed that grammar correction should be part of the L2 writing curriculum. However, Truscott (1996) reviewed previous research and suggested that grammar correction was ineffective in L2 writing classes. This led to increased attention from researchers in the field of L2 writing studies to the topic of WCF, and numerous subsequent studies have since focused on examining its effectiveness (Chandler, 2003). In March 2000, the American Association of Applied Linguistics (AAAL) held a conference in Vancouver and discussed error correction in language teaching, which fueled the emergence of empirical research about WCF.

The Fluctuating Phase (2006–2016)

From 2006 to 2016, the number of research publications covering WCF experienced a period of fluctuating increase. However, the number of WCF research citations still experienced an explosive increase during this period, indicating it was an essential time of theoretical exploration and construction of WCF research; this decade was later considered to have laid the theoretical foundation for the WCF field. More than half of the Top 10 most-cited publications focused on WCF during 1987–2022 (see Supplementary Table A) were published between 2006 and 2016, providing theoretical guidance for further conceptual frameworks and research methods.

The Conceptual Framework of WCF

Researchers during this period enriched and refined the conceptual framework of WCF, specifying its classification. For example, Ellis (2009) classified the types of feedback into direct correction, indirect correction, focused correction, unfocused correction, electronic correction, and reformulation from the perspective of strategies for providing feedback. This typology provided a theoretical basis for researchers to explore the comparative effectiveness of different types of WCF systematically.

The Research Methodology of WCF

Most cited papers provided methodology guidance for the design of empirical studies. To verify the effectiveness of WCF, studies must quantify and compare the results produced with and
without WCF. Controlled experiments were a standard method that required researchers to set up an experimental group that received WCF and a control group that did not. After a period of writing practice, the effectiveness of WCF could be determined by comparing the performance of the two groups (Bitchener, 2008; Chandler, 2003; Sheen, 2007). Another standard experiment design focused on the same group of participants. It determined whether their writing proficiency improved after receiving WCF through successive “pre-test–immediate post-test–delayed post-tests” (Ellis et al., 2008, p.353).

The Explosive Phase (2017–2022)
Guided by a solid disciplinary base, WCF research entered an explosive period of diversification in recent years, as evidenced by the increase in annual publications and the growing variety of research topics. From 2017 to 2022, research on the factors influencing the effectiveness of WCF has expanded beyond teacher and time factors to include learner and linguistic factors. These learner factors encompass language proficiency, academic ability, linguistic background, language beliefs, learning goals, language context, and cognitive ability. Additionally, linguistic factors such as the types of errors, including morphology, syntax, spelling, and punctuation, have also been considered in recent studies (Lee & Du, 2021; Moser, 2020; Nowbakht & Olive, 2021). In addition, WCF research became more integrated with information technology, with automated written evaluation (AWE) provided by automated correction software such as Grammarly, further enhancing the WCF classification framework (Fu & Liu, 2022; Lee & Briggs, 2021). During the explosive phase, WCF research became one of the research frontiers in L2 writing research; researchers considered the factors of L2 writing subjects’ self-efficacy and individual differences comprehensively; the research articles were still mainly empirical studies.

Discipline Research Analysis
The analysis of disciplines related to WCF research helped identify the attribution of academic publications, authoritative journals, and the perspective of researchers in this field. Through mapping the dual-map overlay and collecting statistics of source journals and discipline distribution, this study aimed to understand the disciplinary areas involved in WCF research and the research dynamics in each area over the past 30 years.

Dual-map Overlay
The dual-map overlay generated by CiteSpace, taking the scientific map as the base map for analysis, formed the disciplinary co-occurrence network by superimposing the information of the analyzed data and visually presenting the interaction between the analyzed data and the relevant knowledge sources (Chen & Leydesdorff, 2014). The Blondel algorithm clustered journals publishing existing academic results of WCF research. As shown in Figure Two, multiple labels presented in the dual-map overlay were extracted from journal titles of related disciplines. Citation journals are shown on the left, reflecting the academic application of WCF research, while cited journals are shown on the right and represent the theoretical basis of WCF. The arcs connecting the left and right figures indicate citation links. Through the aggregation of the z-score function, the wider the arcs, the closer and more critical the link. Ovals in the bottom right corner of Figure Two represent the number of scholarly outputs and authors in the WCF field—the larger the oval, the more published papers.

In Figure Two, the links between the cited and cited journals are concentrated, reflecting
the distinctive disciplinary character of WCF research. The most important connection existed between “Psychology, Education, Health” on the left and “Psychology, Education, Social” on the right (z = 5.1834335, f = 25,176), indicating not only that the social sciences—represented by psychology, education, and health—were the main areas of concern for WCF, but also that the disciplines of psychology, education, and social provide solid theoretical support for WCF research. In addition, the arc from “Psychology, Education, Health” to “Systems, Computing, Computer” indicated one of the significant links in dual-map overlay in line with the trend toward computers providing automatic written feedback in teaching practice. Notably, the most significant number of academic outputs related to WCF were published in the Journal of Second Language Writing (51), which was also the largest source of cited articles in this field (2,754). When conducting research related to WCF, the Journal of Second Language Writing deserves attention.

Figure 2. Dual-map overlay for WCF research

**Discipline Analysis**

Academic journals are one of the primary ways to make academic results accessible to the public and reflect the major disciplines involved in each field of study. Publications cited in a particular field can be considered knowledge sources in that field (Chen & Leydesdorff, 2014). In the field of WCF, the representative cited journals were explored through the analysis of cited journals in CiteSpace, among which the Top 10 are listed in Table One. The primary sources of knowledge for WCF are thus clearly the high-quality traditional linguistic journals, represented by the Journal of Second Language Writing, System, Modern Language Journal, and Applied Linguistics. These sources also show that the concept of WCF has its roots in linguistics and that SLA is the leading research perspective.

**Table 1. Top 10 most-cited journals**

<table>
<thead>
<tr>
<th>No.</th>
<th>Journal</th>
<th>Cited times</th>
<th>Centrality</th>
<th>ICR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Journal of Second Language Writing</td>
<td>400</td>
<td>0.01</td>
<td>Q1</td>
</tr>
<tr>
<td>2</td>
<td>System</td>
<td>350</td>
<td>0.01</td>
<td>Q1</td>
</tr>
<tr>
<td>3</td>
<td>Language Learning</td>
<td>316</td>
<td>0.01</td>
<td>Q1</td>
</tr>
<tr>
<td>4</td>
<td>TESOL Quarterly</td>
<td>314</td>
<td>0.01</td>
<td>Q1</td>
</tr>
<tr>
<td>5</td>
<td>Study in Second Language Acquisition</td>
<td>287</td>
<td>0.02</td>
<td>Q1</td>
</tr>
<tr>
<td>6</td>
<td>Modern Language Journal</td>
<td>286</td>
<td>0.02</td>
<td>Q1</td>
</tr>
<tr>
<td>7</td>
<td>Language Teaching Research</td>
<td>246</td>
<td>0.01</td>
<td>Q1</td>
</tr>
<tr>
<td>8</td>
<td>Applied Linguistics</td>
<td>232</td>
<td>0.06</td>
<td>Q1</td>
</tr>
</tbody>
</table>
Table Two presents the Top 10 journals with numerous articles in the field of WCF. Articles published in these journals constitute the current frontier of WCF research. IF indicates the total number of citations of a journal, while the index of JCR reflects the quality and impact of a journal, with Q1 representing the highest quality category of journals in a discipline. In the field of WCF, the *Journal of Second Language Writing* (51), *System* (42), *Language Teaching Research* (28), *Assessing Writing* (27), *Computer Assisted Language Learning* (26), *Language Learning Technology* (20), *Frontiers in Psychology* (12), *IRAL – International Review of Applied Linguistics in Language Teaching* (10), *Language Awareness* (10), and *TESOL Quarterly* (10) were journals with numerous articles, with a total of 47.46% of the articles published.

Table 2. Top 10 journals with numerous articles

<table>
<thead>
<tr>
<th>No.</th>
<th>Journal</th>
<th>IF</th>
<th>Centrality</th>
<th>Percentage</th>
<th>JCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Journal of Second Language Writing</em></td>
<td>2.55</td>
<td>51</td>
<td>10.26%</td>
<td>Q1</td>
</tr>
<tr>
<td>2</td>
<td><em>System</em></td>
<td>2.22</td>
<td>42</td>
<td>8.45%</td>
<td>Q1</td>
</tr>
<tr>
<td>3</td>
<td><em>Language Teaching Research</em></td>
<td>2.29</td>
<td>28</td>
<td>5.63%</td>
<td>Q1</td>
</tr>
<tr>
<td>4</td>
<td><em>Assessing Writing</em></td>
<td>1.82</td>
<td>27</td>
<td>5.43%</td>
<td>Q1</td>
</tr>
<tr>
<td>5</td>
<td><em>Computer Assisted Language Learning</em></td>
<td>3.57</td>
<td>26</td>
<td>5.23%</td>
<td>Q1</td>
</tr>
<tr>
<td>6</td>
<td><em>Language Learning Technology</em></td>
<td>2.12</td>
<td>20</td>
<td>4.02%</td>
<td>Q1</td>
</tr>
<tr>
<td>7</td>
<td><em>Frontiers in Psychology</em></td>
<td>1.03</td>
<td>12</td>
<td>2.41%</td>
<td>Q1</td>
</tr>
<tr>
<td>8</td>
<td><em>IRAL - International Review of Applied Linguistics in Language Teaching</em></td>
<td>1.2</td>
<td>10</td>
<td>2.01%</td>
<td>Q2</td>
</tr>
<tr>
<td>9</td>
<td><em>Language Awareness</em></td>
<td>1.49</td>
<td>10</td>
<td>2.01%</td>
<td>Q2</td>
</tr>
<tr>
<td>10</td>
<td><em>TESOL Quarterly</em></td>
<td>1.9</td>
<td>10</td>
<td>2.01%</td>
<td>Q1</td>
</tr>
</tbody>
</table>

Based on the comprehensive analysis presented in Tables One and Two, the most productive journal and the most cited journal were both the *Journal of Second Language Writing*, which was a direct indication of the importance of this journal in WCF research. Additionally, *Computer Assisted Language Learning, Language Learning Technology, Frontiers in Psychology, IRAL – International Journal of Applied Linguistics in Language Teaching and Awareness, and Language Awareness* appear in Table Two only as the journals that have published the most WCF-related research in recent years. This finding directly reflects that, as WCF research progresses, research in computer technology, cognitive science, and pedagogy are becoming key new disciplines in the field. The trend of interdisciplinary and even multidisciplinary research has become a dynamic new area of WCF research.

**Geospatial Analysis of Publications**

The geospatial analysis of publications can identify academic emphasis in one research field in different countries and regions (Liu & Brown, 2015). Based on retrieving and selecting data from WoS and CiteSpace, the details of the Top 10 countries (regions) in WCF research are shown in Supplementary Table B. Between 1987 and 2022, the United States and China can be considered the dominant forces in WCF research, for they have both the highest number of publications and the highest H-index (to assess the quantity and quality of researchers’ academic output) among the Top 10 countries (regions). The influence of a country or region in a particular research field can also be reflected in the number of citations in the publications. The United States, China, New Zealand, and Australia are the countries with the highest number of publication...
citations in the WCF field, meaning they have a relatively significant influence on WCF research. Notably, New Zealand (75.86%), South Korea (63.16%), and Australia (54.84%) are the first three in terms of cooperation rate, which indicates that these countries (regions) are active in transnational research on WCF.

Based on the geospatial analysis of WCF publications, first, the major publishing institutions in the field of WCF are all universities, which directly reflects that traditional academic institutions still promote development in WCF research. Second, the language environment of the Top 10 countries with the largest WCF publications is relatively complex. Currently, WCF research is primarily conducted on learners who have acquired English as an L2. In the Top 10 countries, English primarily plays a role as ESL or EFL, indicating that WCF research is primarily conducted in ESL or EFL contexts. Finally, almost every country (region) has refined its research focus within the upper dimension of WCF. For example, China and the United Kingdom focus on “student engagement,” while New Zealand focuses on “task complexity.” It also suggests that WCF is a complex concept with a rich internal structure sensitive to external factors (e.g., stakeholders and context).

Main Research Streams of WCF

Through the analysis of co-citation status and citation burst, this study explored the existing main themes and hotspots of WCF research. By performing document co-citation analysis (DCA), the details of key literature with a high citation frequency, intellectual domains, and research themes related to this research topic could be directly visualized (Chen et al., 2010). According to Small (1973), if a third document cited two documents together, the two documents constituted a co-citation relationship. This study conducted DCA on 497 WCF documents using CiteSpace, and clusters were generated using the LLR algorithm (Figure Three). The parameters of CiteSpace were set as follows: g-index (k=25), LRF=3.0, L/N=10, LBY=5, and e=1.0. The Co-citation WCF network included 800 nodes and 3,186 links. With a modularity of 0.7445 and a weighted mean silhouette of 0.896, the map was well-structured and meaningful to reflect the research status of WCF.

Through clustering, the main categories of WCF research were as follows: #0 error correction, #1 corrective feedback, #2 student engagement, #3 EFL writing, #4 grammar correction, #5 collaborative writing, #6 metalinguistic awareness, and #10 lexis. All categories showed a high degree of concentration, clearly reflecting that changes are emerging in WCF research themes: (a) The research focus on stakeholders involved in WCF concentrates more on the students (#2 student engagement). Since students are the recipients of WCF, researchers are interested in how different individual factors interact with the external environment to influence learners’ understanding and adoption of WCF (Han & Hyland, 2015; Hyland, 2013; Koltovskaia, 2020; Zheng & Yu, 2018). (b) The emphasis on the language context of WCF was increasing (#3 EFL writing). Cheng and Zhang (2021) used data from semi-structured interviews and student writing samples to explore how new writing teachers conceptualized and provided WCF in the context of EFL. (c) The correlation between the types of WCF and receivers’ metalinguistic awareness was explored through extensive research (#6 metalinguistic awareness). Direct WCF, which provides grammar rules and examples of correct usage, can be seen as a metalinguistic explanation and benefit to improve students’ meta-linguistic knowledge and awareness (Bitchener & Knoch, 2010). In Bitchener and Knoch’s (2010) study, learners’ writing accuracy improved during the 10-week experimental period by receiving WCF through meta-linguistic clarifications.
In CiteSpace’s algorithm, a burst represents a sharp increase in a particular object of analysis in a research field. Innovative research topics were identified to analyze the citation burst by determining the literature cited with high frequency during a given period. An emerging topic corresponded to a new research direction, from which the evolution of WCF research could be visualized.

Figure Four shows the 25 pieces of literature with the strongest citation bursts. The blue line in the figure shows the timeline, and the line segments marked in red represent the period during which the number of literature citations surged. As founders of WCF research, Jean Chandler, Dana Ferris, John Bitchener, and John Truscott were highly cited authors whose publications appeared several times. Van Beuningen et al.’s (2012) study continued to receive significant attention from 2012 to 2017, becoming one of the publications with the most extended citation burst. By conducting controlled experiments, they found that the writing accuracy of learners who received direct and indirect WCF was higher than that of learners who had not received any feedback. Meanwhile, direct WCF was beneficial to improving grammatical accuracy, while indirect WCF was beneficial to improving other linguistic accuracy. This study provided clear answers to both questions of “whether WCF was effective” and “which types of WCF were more effective,” extensively promoting the development of WCF research. Zheng and Yu’s (2018) research represented the latest research direction in the field of WCF, which focused on observing the emotion, behavior, and cognition of language learners in the face of the teacher’s WCF, indicating that the focus of WCF was gradually shifting from studying WCF itself to the participation and experience of stakeholders, reflecting the trend of multidisciplinary research on WCF, cognitive science, and psychology.
Written Corrective Feedback Scientometric Review

Wang, Zuo, & Wang

Emerging Research Areas

After the formation of clusters using the timeline function, a timeline of the WCF research conducted by networks from 1987 to 2022 was generated to provide a clear picture of the research trend (Chen, 2017). Clusters were arranged horizontally across the timeline; the timeline map offers a view of the overall development in the field to show whether trends lasted. After adaptation, as shown in Figure Five, from 1987 to 2022, there were 13 clusters in total. Emerging significantly, four clusters among the 13 are most distinguishable: #0 comprehensive corrective feedback, #2 AWE feedback, #4 direct correction, and #7 teachers’ beliefs.

Based on the mapping result, the emerging trend analysis can be classified into two groups: #0 comprehensive corrective feedback and #4 direct correction grouped to the content and form of the feedback; #2 AWE feedback and #7 teachers’ beliefs grouped to the influencing factors underlying WCF’s effect from the mediation perspective.

Comprehensive corrective feedback also means unfocused corrective feedback, which gives feedback on various categories of error and has been widely used in L2 writing classrooms (Ellis et al., 2008). Some scholars claimed that comprehensive corrective feedback would overwhelm learners, imposing a cognitive burden and thus hindering learners’ ability to correct themselves (Sheen et al., 2009). However, other research concluded that comprehensive corrective feedback research was not limited to the feedback scope but also included a lot of other variables, such as feedback explicitness, error type, and learner type (Lopez et al., 2018). Hence, whether comprehensive corrective feedback could be effective in writing class remained a heated discussion from 2020 to 2022.

Direct feedback was given in the form of reformulation, which involves rewriting the learners’ work while paying attention to grammatical and lexical problems and retaining as much of the original content as possible (Thornbury, 1997). Direct and indirect feedback was usually discussed together. According to Ferris and Hedgcock (2014), when comparing direct and indirect WCF, direct feedback helps to eliminate confusion and reduces learners’ cognitive load, allowing learners to test their hypotheses more directly. In contrast, indirect feedback is more helpful in fostering the internalization of the form and increasing metalinguistic information processing (Bitchener, 2012). Since 2020–2022, the discussion of direct feedback has greatly increased.

With the development of computer technology, the types of WCF have also undergone
innovations and enhancements. AWE feedback (i.e., automated written evaluation feedback) means computer-generated feedback. Due to the booming internet use and pandemic outburst, much attention was paid to computer-assisted feedback, with heavy importance attached to learners’ self-engagement. Studies were primarily conducted in the setting of higher education. This recently highly developed written corrective feedback form has been intensely investigated from around 2020 to 2022. For example, Lee (2019) pointed out that teachers can encourage students to use computer-mediated resources to improve the accuracy of writing (e.g., using Microsoft Word) or web-based grammar checks (e.g., Grammarly) to monitor the student’s written accuracy development. Barrot (2023) experimented to determine whether AWCF affects L2 learners’ writing accuracy and found that AWCF is sound and that students’ writing accuracy may be influenced by their engagement in self-learning.

Apart from WCF itself, researchers have noticed the interaction between students and teachers in WCF and teachers’ role as feedback givers, especially from 2020 to 2022. Thus, the term teacher belief has been selected by CiteSpace. For example, Chen (2022) highlighted that teachers’ beliefs are influenced by their different experiences and students’ needs. Teachers’ WCF could then vary according to their beliefs. Barrot (2023) stated that students who had used AWCF performed better than those who had not. Therefore, AWCF tools such as Grammarly could be helpful pedagogical tools in L2 writing classrooms. Vyatkina (2010) advocated that L2 educators should administer effective and efficient WCF to student writing and strategically combine different feedback forms.

Overall, the development of WCF research is maturing. The focus point of such research is gradually changing from the efficiency of WCF to the formation of WCF and other influencing factors. WCF research has also innovated with time. In the future, the research trends of #0 comprehensive corrective feedback, #2 AWE feedback, #4 direct correction, and #7 teachers’ beliefs will likely develop further.

Figure 5. Keywords timeline

Short-term burst keyword mapping enabled the analysis of rapidly growing topics and increased understanding of research themes in recent years. As shown in Figure Six, the theme of WCF studies changed, and which topics became heated discussions can be identified. The node size represents the publication number, and the red circle around or in it means the topic is heatedly
discussed. The color of the “student engagement” and “belief” notes are among the reddest ones, indicating that the relationship between WCF and its stakeholders (e.g., students and teachers) has become the focus of recent studies. By investigating two novice EFL writing teachers’ beliefs and practices concerning WCF across contexts, Chen (2022) found inconsistencies between teachers’ beliefs and practices. This study also associated L2 teachers’ inconsistent practices with teachers’ identities and showed detailed illustrations of how teachers’ beliefs and practice systems interacted with specific educational and sociocultural contexts.

Figure 6. Keywords co-occurrence and burstiness

Discussion

Using a scientometric visual mapping approach, this study analyzed 497 WCF publications from 1987, when WCF was first made available as an independent concept in WoS, through 2022. It provided a clear and comprehensive knowledge landscape of WCF, including development stages, disciplinary involvement, main source countries and regions, primary research topics, and emerging research trends.

First, by counting the number of WCF research publications and citations between 1987 and 2022, a graph was generated to present the development stages of WCF research visually. This review found that research on WCF can be divided into the sprouting phase (1987–2005), the fluctuating phase (2006–2016), and the explosive phase (2017–2022), corresponding to scholarly interest in whether WCF is effective, which type of WCF is most effective, and what factors influence WCF, respectively. During the sprouting phase (1987–2005), Truscott’s (1996) review article The Case Against Grammar Correction in L2 Writing Classes was the most cited article in the field of WCF and Ferris’s (2002) monograph Treatment of Error in Second Language Student Writing laid a solid theoretical foundation for the development of this field. However, the results of studies in this phase have been influenced by experimental design (e.g., lack of pretesting, inconsistent pretest and posttest instruments, and lack of control groups), which means the effectiveness of WCF remains highly controversial. To address the inadequacy and incompleteness of existing studies and the inconsistency of experimental designs, Ferris (2004) and Truscott (2007) called for more and deeper empirical research. Thus, between 2006 and 2016, researchers expanded their research questions to include the effectiveness of different types of WCF in hopes of maximizing the utility of WCF. Following the construction of the WCF typological framework (Ellis, 2009), the effectiveness of direct WCF, indirect WCF, and meta-linguistic WCF from the categorical perspective of the strategy used to provide feedback has been widely discussed.
Guided by a strong disciplinary base, WCF research entered an explosive period (2017–2022) of diversification, as evidenced by the increase in the number of annual publications and the growing variety of research topics. From 2017 to 2022, research on factors influencing the effectiveness of WCF expanded from teacher factors (different forms of WCF provided by L2 teachers) and time factors (short/long term) to include learner factors (language proficiency, academic ability, linguistic background, language beliefs, learning goals, language context, cognitive ability) and linguistic factors (types of linguistic errors, e.g., morphology, syntax, spelling and, punctuation) (Lee & Du, 2021; Moser, 2020; Nowbakht & Olive, 2021).

Second, through the analysis of dual-map overlay, co-citation, and keyword co-occurrence, the results revealed that, despite first being introduced as a linguistic concept, WCF research has spread to encompass a wide range of disciplines (e.g., computer technology, cognitive science, and psychology). Computer-assisted language learning has brought new forms of language learning, bringing AWE into focus (Barrot, 2023; Cheng, 2017). The computer corpus’s establishment and perfection for enhancing AWE’s ability may be the future research topic in WCF. Moreover, cognitive science has led researchers to pay increasingly more attention to the impact of WCF on L2 learners’ psychological activities, with research represented by the academic emotions evoked by WCF emerging as a new research direction (Han & Hyland, 2019), which also provides a new compensation mechanism for the efficiency enhancement of WCF acting on L2 learners’ writing proficiency. As Computer Assisted Language Learning, Language Learning Technology, and Frontiers in Psychology have become the Top 10 journals with numerous articles in WCF, the interdisciplinary research trend of WCF has gradually become mainstream in the field. The interdisciplinary research provides insight into the relationship between language and the brain, generating empirical support for the research theme of how, from the perspective of WCF, internal mechanisms and external environmental factors play a role in language acquisition.

Third, a geospatial analysis of publications was conducted to explore the dominant forces in WCF research and the extent of research collaboration among countries or regions. This study found that the United States and China can be considered the dominant forces in WCF research, for they have the most publications and the highest H-indices. These findings support Mao et al.’s (2023) review of WCF in the L2 writing context, which pointed out that the United States, China, and other countries and regions led the development of WCF research. The first three in terms of collaboration rate were found to be New Zealand (75.86%), South Korea (63.16%), and Australia (54.84%), all countries with complex and diverse linguistic environments characterized by multiple language variants. For instance, Shintani et al.’s (2014) article comparing two types of WCF (i.e., direct corrective feedback and metalinguistic explanation) has a high number of citations (more than 100) from collaborating scholars with Singaporean, New Zealander, and Japanese backgrounds. The data show not only that WCF has gained significant attention from leading research institutions, but also that it has fostered cross-cultural collaboration.

Fourth, the present study explored the main themes and hotspots of WCF research by conducting co-citation and citation burst analysis. The complexity of WCF as an independent academic concept can be reflected in its research topics. Cluster #0 (error correction), Cluster #4 (grammar correction), and Cluster #6 (metalinguistic awareness) indicate the establishment and development process of the WCF internal construct framework. The emphasis on meta-linguistic awareness in WCF research reflects the fact that the concept of WCF has expanded from grammar correction to lexical, syntactic, and more comprehensive aspects of language use. This expansion
has occurred because meta-linguistic WCF stimulates deep internal processing and facilitates the transformation of declarative knowledge into procedural knowledge to help learners summarize and analyze language knowledge (Bitchener & Knoch, 2010). At the same time, the various stakeholders involved in WCF have become the focus of efforts to integrate WCF into the whole ecology of language teaching and learning. The “student” identity in WCF research has gradually diversified in this process. Since students are the recipients of WCF, researchers are interested in how different individual factors interact with the external environment to influence learners’ understanding and adoption of WCF (Han & Hyland, 2015; Hyland, 2013; Koltovskaia, 2020; Zheng & Yu, 2018). Researchers also find that the identity of WCF providers is not limited to more advanced language users (e.g., L2 teachers, native speakers). L2 learners with similar language proficiency levels can also provide each other with accurate WCF through collaborative learning (Anderson et al., 2010; Elola & Oskoz, 2010), making collaborative writing a new research topic for WCF (cluster #5, collaborative writing).

Last, during periods of theoretical exploration and development, most WCF studies have examined the impact of WCF on language skill development in the L2 teaching context, ignoring individual differences among learners (Ellis, 2010). This emphasis on the focus is also the primary reason why many previous studies have utilized controlled experiments. These experiments aim to compare and observe the short- or long-term changes in writing ability between learners who received WCF and those who did not. Furthermore, they strive to quantitatively analyze the results through the application of mathematical statistics. However, the statistical method of quantifying the mean values of the research groups erases the differences in individual variances between participants, and as the focus of research gradually shifts to the influencing factors of WCF, exploratory qualitative research becomes a new trend. The trend of qualitative research in WCF research is reflected in two main aspects: the application of qualitative research methods represented by classroom observation, interviews, and the increase of case studies. Cluster #10 follow-up interview in the keyword co-occurrence analysis is a good indication of the emerging trend of qualitative research or mixed methods adopted in WCF research (Chen, 2022; Han & Hyland, 2019; Kim et al., 2020; Shintani, 2016). In addition, case studies matched with qualitative studies are more conducive to in-depth analysis of individual differences (Mao & Lee, 2020; Zheng & Yu, 2018). Cluster #2 student engagement in co-citation analysis indicates that current studies tend to conduct detailed and in-depth exploration of different stakeholders involved in WCF (Koltovskaia, 2020; Zheng & Hyland, 2018). Based on a solid theoretical foundation, WCF research has moved beyond the theoretical validation period, and exploring new directions in this field is receiving increasing attention.

Conclusion

This study presented a retrospective review of 497 articles and review articles published in the field of WCF from 1987 to 2022 in WoS. The existing WCF research was extensive and multidisciplinary in nature, and this study systematically reviewed the leading research threads in this field to inspire subsequent research. The core of the academic discussion was gradually refined from whether WCF was effective to which type of WCF was more effective. Moreover, with the impact of novel technologies and perspectives, researchers have gradually focused on automatic WCF closely related to computer science and paid more attention to the subjective motivation of WCF stakeholders. The factors influencing the effectiveness of WCF and its impact on language learners’ mental activities and emotions emerged as a new research trend under the
interdisciplinary perspective of sociology and cognitive science. However, this study still has some limitations. First, as a linguistics concept, WCF has distinct social science attributes. To ensure data accuracy, this study’s data set was limited to SSCI and AHCI, and relevant literature included in other databases (e.g., SCI and ESCI) may be ignored. Second, to provide a more accurate analysis of the most productive and influential journals in WCF research, only articles and review articles published in journals were considered in this study; conference articles, which can also represent the latest trends in the field, were not included in the data set. Future studies could consider a more comprehensive visual analysis of research in the field of WCF by expanding the database.

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ORCID: https://orcid.org/0009-0007-2548-1161

References


Cho, H., & Kim, Y. (2022). Learning Korean honorifics through individual and collaborative


Appendices

Appendix A

Supplementary Table A. Most-cited publications of WCF from 1987–2022

<table>
<thead>
<tr>
<th>Rank</th>
<th>Publications: Author (Year) Title</th>
<th>Cites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Truscott, J. (1996). The case against grammar correction in L2 writing classes.</td>
<td>606</td>
</tr>
<tr>
<td>2</td>
<td>Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing.</td>
<td>409</td>
</tr>
<tr>
<td>3</td>
<td>Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners’ acquisition of articles.</td>
<td>320</td>
</tr>
<tr>
<td>4</td>
<td>Bitchener, J. (2008). Evidence in support of written corrective feedback.</td>
<td>313</td>
</tr>
<tr>
<td>7</td>
<td>Truscott, J. (2007). The effect of error correction on learners’ ability to write accurately.</td>
<td>254</td>
</tr>
<tr>
<td>8</td>
<td>Ferris, D. (2004). The “grammar correction” debate in L2 writing: Where are we, and where do we go from here? (And what do we do in the meantime...?)</td>
<td>247</td>
</tr>
<tr>
<td>9</td>
<td>Ellis, R. (2009). A typology of written corrective feedback types.</td>
<td>241</td>
</tr>
</tbody>
</table>

Appendix B

Supplementary Table B. Top 10 productive countries (regions) for WCF research

<table>
<thead>
<tr>
<th>Country /Region</th>
<th>Paper quantity</th>
<th>Times cited</th>
<th>H</th>
<th>Main institutions</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>138</td>
<td>5,370</td>
<td>38</td>
<td>University System of Georgia, University of California System, Brigham Young University</td>
<td>written corrective feedback (49), error correction (37), acquisition (31), corrective feedback (29), accuracy (26), English (19), student (18), grammar correction (18), fluency (13), efficacy (10), form (9)</td>
</tr>
<tr>
<td>China</td>
<td>123</td>
<td>2,527</td>
<td>26</td>
<td>University of Macau, Chinese University of Hong Kong, Education University of Hong Kong</td>
<td>written corrective feedback (70), accuracy (30), L2 writing (25), corrective feedback (23), teacher feedback (23), student (23), student engagement (22), perception (20), error correction (20), acquisition (16)</td>
</tr>
<tr>
<td>Australia</td>
<td>31</td>
<td>1,232</td>
<td>13</td>
<td>University of Melbourne, University of Queensland</td>
<td>accuracy (4), error (3), revision (2), acquisition (2), grammar correction (1), written accuracy (1), collaborative writing (1), feedback (1), pair work (1), error correction (2)</td>
</tr>
<tr>
<td>Spain</td>
<td>31</td>
<td>312</td>
<td>10</td>
<td>University of Murcia, Universidad Publica De Navarra, University of Basque Country</td>
<td>written corrective feedback (16), output (13), error correction (10), corrective feedback (9), student (8), attention (7), revision (7), accuracy (7), grammar correction (4), reformulation (4)</td>
</tr>
<tr>
<td>New Zealand</td>
<td>29</td>
<td>2,398</td>
<td>19</td>
<td>University of Auckland, Auckland University of Technology, Victoria University Wellington</td>
<td>error (7), grammar correction (3), error correction (6), acquisition (5), corrective feedback (3), accuracy (2), written corrective feedback (3), capacity (1), task complexity (3), comprehensive written corrective feedback (2)</td>
</tr>
<tr>
<td>Canada</td>
<td>27</td>
<td>357</td>
<td>8</td>
<td>University of Victoria, Simon Fraser University</td>
<td>accuracy (7), error correction (2), feedback on form (1), error (3), L2 teacher training</td>
</tr>
<tr>
<td>Country</td>
<td>Year</td>
<td>Pages</td>
<td>Authors</td>
<td>Keywords</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>England</td>
<td>26</td>
<td>376</td>
<td>The University of Exeter, The University of London, Manchester Metropolitan University</td>
<td>composing processes (1), instruction (1), metalinguistic awareness revision activities (1), error-correction (3), grammar correction (1), intrinsic motivation (1), article use (1), explicit (1), written corrective feedback (4), feedback (2), learner engagement (2)</td>
<td></td>
</tr>
<tr>
<td>Iran</td>
<td>25</td>
<td>208</td>
<td>Islamic Azad University, Shiraz University, University of Isfahan</td>
<td>complexity (1), error (1), fluency (1), modified output (2), corrective feedback (5), recasts (2), written corrective feedback (7), accuracy (1), computer-mediated feedback (1), acquisition (3)</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>19</td>
<td>243</td>
<td>Korea Advanced Institute of Science Technology, Yonsei University</td>
<td>form-focused instruction (1), modified output (1), written corrective feedback (4), corrective feedback (1), integrated reading-to-write task (1), recasts (1), accuracy (3), collaborative writing (3), error correction (1)</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>17</td>
<td>713</td>
<td>Miyagi University Education, Akita International University, Kansai University</td>
<td>error (1), grammar (1), focused/unfocused feedback (1), corrective feedback (2), attention (1), feedback (3), accuracy (2), classroom assessment (1), revision (2), acquisition (2), writing (2)</td>
<td></td>
</tr>
</tbody>
</table>
Challenges in Incorporating English as the Medium of Instruction at King Saud bin Abdulaziz University for Health Sciences

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Abstract
In contexts where English is not a mother tongue, several institutions implement English as the medium of instruction. This paper argues that Saudi students pursuing tertiary education in scientific disciplines like health sciences must study in English-medium settings where they encounter several academic challenges related to the English language. Pre-university education for Saudi students is conducted in Arabic, which may have resulted in a jarring transition when they were expected to be instructed in English at the university. This abrupt change in the instruction medium challenges students’ English language proficiency. This paper aims to answer this question “What do perspectives students and instructors at KSAU-HS have regarding the challenges of implementing EMI in CAMS-A?” It may also question the institution’s language policy and the quality of its educational outcomes. By using data from semi-structured interviews and classroom observations, the findings of this paper attempt to comprehend challenges such as 1) pre-university English language preparations, 2) misaligned expectations between content instructors and English instructors regarding improving students’ English language, 3) time and effort in preparing and delivering lectures using EMI, and 4) impeding students’ comprehension of content knowledge and driving them to rote memorization. This paper discusses these obstacles to provide potential explanations and solutions by calling into question the monolingual bias of EMI programs in Saudi Arabia.

Keywords: English for Specific Purposes, English medium instruction, English language proficiency, Language policy, Preparatory year program, Students’ academic challenges, Teaching English in tertiary education

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Introduction

English as a Medium of Instruction (EMI) is becoming a fashion in many leading global tertiary education institutions in non-English speaking nations, and they view it as an essential answer for their reputations (Shimauchi, 2018). The tertiary institutions in Saudi Arabia are involved in the Englishization of science-related specializations. In other words, they seek to enhance their tertiary education by affiliating it with EMI. These nations seem to understand internationalization, the enhancement of their education, and the improvement of their students’ communication skills through the Englishization of tertiary education (Chowdhury & Ha, 2014; Delgado-Marquez et al., 2013). Such an understanding is believed to influence many students in the Arabic Gulf area, so many educators view EMI as a primary way to improve student English language proficiency (Ismail, 2011; Macaro, 2015). However, such a linearity between EMI and language competency is less often than many would like to believe (Macaro, 2018).

This emphasis on EMI education surging in many Middle East and North Africa (MENA) tertiary education could be associated with the critical role that English plays in constructing “economic globalization” and socio-political and educational discourse in these areas (Barnawi & Alhawsawi, 2016; Kirkpatrick & Barnawi, 2017). This sentiment is reiterated by experts like Canagarajah (2005), who cautions against taking for granted the role of EMI in improving students’ English language proficiency. Canagarajah (1999) further argues “that the local languages may have an equal or greater role to play in educational and social development is often ignored” (p. xv). Thus, when introducing EMI, especially in Saudi higher education, it is critical to consider the academic and language-related issues students and teachers may experience. Therefore, this paper comes to answer this question “What perspectives do students and instructors at KSAU-HS have regarding the challenges of implementing EMI in CAMS-A?” Such investigation may assist in evaluating EMI’s influence on local students, institutions, and knowledge production.

Literature Review

EMI and its Significance for Higher Education

The internationalization of higher education has a significant effect on the language used to teach in universities all over the world. Many tertiary education institutions that aspire to compete in global tertiary education for excellence use EMI to obtain autonomy and academic freedom, reputation, rankings, and excellence programs (Alkhateeb, 2021; Dearden & Macaro, 2016). EMI has been defined in many different ways, one of which is the definition that is provided by Dearden (2015), who explained that “the use of the English language to teach academic subjects in countries or jurisdictions where the first language of most of the population is not English” (p. 2). Macaro (2018) emphasized that when using EMI in pedagogical settings, the focus often becomes on communicating the subject knowledge, and language learning takes the last seat.

Although EMI could be seen as a face of neo-colonialism (Barnawi, 2017), the need for using it in many higher education systems is well argued. One such argument suggests that English is used in most scientific production globally and that articles are easier to be found and read in English (Montgomery, 2013; Ramírez-Castañeda, 2020). Thus, most Saudi universities teach science using EMI (Alhawsawi & Jawaher, 2022). Moreover, EMI improves university rankings, economic growth, and knowledge access, and it enhances graduates’ employability and English competence (Dearden, 2015; Jawhar et al., 2022; Macaro, 2018).
English Medium Instruction in Saudi Language Policy

The state of the Arabic language is well-established in the language of Saudi Arabia. Its prestigious status is emphasized in Article 24 of Saudi Arabia’s Education Policy, by suggesting that “the Arabic language is the official language for the whole education level in the kingdom except if there is a requirement to employ other languages” (Ministry of Education, 1996, p. 9). However, English was introduced in Saudi education to assist students in interacting worldwide, advancing global knowledge and experience, and passing their uniqueness to Saudi Arabia, among other objectives. Such a view toward the English language could bring many unquestionable “advantages to the millions who learn it” (Habbash & Troudi, 2015, p. 57). Therefore, English is used by Saudi higher education to teach Saudi students different disciplines of natural sciences (Jawhar et al., 2022).

Attitudes toward English Medium Instruction

The attitudes held by students and educators toward EMI vary based on different contexts. This variation could be attributed to various factors, including socioeconomic and political factors (Alkhateeb, 2021). In the Saudi context, for instance, although most instructors and students see EMI as an impediment that might affect students’ academic progress, they pragmatically favor it because of the abundant resources that come with it and the broad access it allows to global scientific production (Alshareef et al., 2018; Al Zumor, 2019). However, there is a view that suggests that Arab students of the Gulf prefer to use AMI in their education as they feel that AMI allow them room to improve their scientific knowledge acquisition and understanding (Ellili-Cherif & Alkhateeb, 2015). A study by Solloway (2017) discussed that the spread of the English language not only negatively influences students' education but also may threaten the student mother tongue and their religious and cultural identities. Alhamami (2015) demonstrated that Arab scientists in a Saudi university prefer teaching their students in their mother language since it helps to demystify EMI’s academic obstacles in science education at the undergraduate level. Even with such held views, many students still view AMI as hurting students’ future employment and their post-graduate pursuits (Al-Kahtany et al., 2016). Thus, some experts suggested bilingualism as a pragmatic solution to protect the original language and national identity while enhancing students’ English skills and giving them access to current knowledge being produced in the English language (Macombe, 2015; Raddawi & Meslem, 2015). Alternately, as suggested by Macombe (2015), monolingual language policies could be replaced with bilingualism in specific courses.

Concerns Related to English Medium Instruction

The misconceptualization of what EMI instructors are and what is expected of them poses a significant challenge for EMI programs and their instructors. Teachers of EMI find it challenging to juggle the responsibilities of teaching class material and assisting students in improving their English proficiency. Shohamy (2013) claimed that English for Academic Purposes (EAP) students experience find it challenging to follow the lectures when new specialized linguistic terms are introduced in their science classes. Such encounters are attributed to most science lecturers not emphasizing language learning when teaching sciences (Ali, 2013). Sciences or subject lecturers see their role as English language teachers and assume that students already have sufficient English skills to satisfy EMI demands (Dearden, 2015). In addition, content instructors’ language abilities and pedagogical skills may constitute a barrier to successfully conveying academic content (King,
2014, Jiang et al., 2016). In observations for Norwegian lecturers, Griffiths (2013) revealed that despite their scientific competencies, many science lecturers do not possess sufficient English language competencies when they teach science and that their “limited vocabulary caused problems in all disciplines.” Some content instructors choose to teach in their native language because they find it easier to communicate their content (Alkhateeb, 2021). However, some institutional language regulations may prohibit such practices, placing instructors in a precarious position because they lack the training to teach using EMI (Dearden, 2015; Macaro, 2018).

Additionally, students experience difficulties when utilizing EMI, especially in reading and writing. Sengupta (2002) argued that purposeful and critical tasks for lengthy scientific material could be daunting for EMI students with low English language skills. Hellekjær (2009) investigated challenges facing European college students when reading in English. It was concluded that new words and the ability to read fast were the leading causes of reading difficulties among these students. Furthermore, Shen (2013) stated that science or academic texts produced in English are primarily designed to be read by native English audiences or students with advanced English proficiencies. In the Saudi context, Al-Nasser (2015) noted that passing exams, not developing English language skills for EMI contexts, has always been the focus of most English language instructors. Therefore, English academic proficiency has become a barrier for most Saudi EMI students. The academic writing demands of EMI courses are an additional barrier for Saudi students. EMI students in tertiary education struggle with writing and cannot meet literacy requirements (Al Zumor, 2019). According to Barnard (2015) and Hyland (2013), what worsens the matter is that students in these EMIs never receive sufficient comments from their content instructors on their English writing; the scientific content is always the focus. Despite the importance of accuracy in English language composition when writing scientifically, most EMI lecturers do not emphasize it when correcting their students’ academic work; instead, they only focus on science knowledge (Hyland, 2013). This finding is echoed in Alghammas’s and Alhuwaydi’s (2020) research, which reported that lack of practice in English writing in science courses and insufficient feedback have badly influenced EMI students’ writing production. Most EMI teachers view themselves more as content educators than language specialists, thus paying less attention to the language and more attention to the subject of their students’ writing (Al-Bakri & Troudi, 2020). The literature showed that subject teachers believe students are responsible for improving their language skills.

Ortega (2015) argued that not all students can benefit from studying in an EMI. Students with limited English language competencies cannot access academic resources published in English. These resources are only accessible to students with the required linguistic competency to study in an EMI context. Therefore, the challenges mentioned earlier are significant, critical and require immediate attention from educational policymakers. The literature on EMI has yet to thoroughly explore these issues and highlight their impacts on academic standards, knowledge acquisition, and overall pedagogical effectiveness. EMI program managers must create appropriate programs to educate instructors who are expected to teach science in a language other than the student’s mother tongue to help students enhance their English language proficiency and subsequently meet the language demands of the program.

The literature review emphasized the importance of understanding EMI and its effects. However, Saudi health science education EMI research is scarce; a few studies have been found to address this field (e.g., Al-Abdaly, 2012; Al-Kahtany et al., 2016; Alkhateeb, 2021; Alshareef et al., 2018; Ebad, 2014). Except for Al-Abdaly (2012) and Alkhateeb (2021), most of this research
compared EMI to AMI without examining instructors' pedagogies or students' experiences. Empirical identification and comparison of instructors' and students' EMI experiences in the same learning setting have received little attention in Saudi Arabia. Thus, this research seeks to update Saudi higher education’s EMI debate by adding students’ and instructors' health science education experiences.

Method

To answer the research question of this study, which is: What perspectives do students and instructors at KSAU-HS have regarding the challenges of implementing EMI in CAMS-A, we used a qualitative case study design to explore the perceptions about EMI among students and instructors at CAMS-A and gain insights into EMI implementation challenges, concepts, and phenomena. We answered the research question by identifying how EMI is practiced in the study context.

Participants

Context of the Study

This study was conducted at the College of Applied Medical Sciences in Al-Ahsa (CAMS-A, henceforth), a college in KSAU-HSo, in 2021. The CAMS-A divides its bachelor programs into two phases. In the first phase, which is the pre-professional phase, students enroll in an intensive English language program and introductory science courses. Second, the professional stage teaches the students their core courses in their disciplines, using English for instruction and official communications (Alhawsawi & Jawhar, 2022).

Admission to KSAU-HS is based on three criteria, none including English language proficiency requirements. Since most of the teaching and learning in pre-university education was done in Arabic and the education in the university is expected to be in English, implementing the Preparatory Year Program (PYP) is necessary. The PYP helps rectify the significant incompatibilities between public education language policy and EMI programs, but in most cases, such a language intervention does not always yield the desired results for the EMI requirements (Al-Bakri, 2017; McMullen, 2014).

For this study, we gathered data through direct observations in both classroom and online settings. We closely examined relevant documents provided by the university and conducted semi-structured interviews to understand better how EMI is implemented in our context. A total of ten participants were involved in this study. Among them, two were English language instructors; one spoke English as a mother tongue, and the other was an Arabic native speaker. Since KSAU-HS admits Saudi nationals, the students included in this study spoke Arabic as their L1. Their ages range from 19 to 22. They all studied their pre-university education in government schools that use AMI, except one. Only one student studied in Canada. Their self-assessment and grades in English courses revealed that these students possess above-average English proficiency for Saudi university college students. The students were selected to represent each of the four academic years of the college. The instructors, however, were selected to represent general science disciplines taught in the first two years of college.
Table 1. Details about instructors’ participants

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Discipline</th>
<th>Duration of Teaching</th>
<th>English Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Khli</td>
<td>English</td>
<td>Six years</td>
<td>Native</td>
</tr>
<tr>
<td>2 Zafa</td>
<td>Biology</td>
<td>Nine years</td>
<td>Non-Native</td>
</tr>
<tr>
<td>3 Muhin</td>
<td>Pharmacology</td>
<td>Ten years</td>
<td>Non-Native</td>
</tr>
<tr>
<td>4 Azmi</td>
<td>Biochemistry</td>
<td>Six years</td>
<td>Non-Native</td>
</tr>
<tr>
<td>5 Nassir</td>
<td>English</td>
<td>Four years</td>
<td>Non-Native</td>
</tr>
<tr>
<td>6 Salim</td>
<td>Health Sciences</td>
<td>Five years</td>
<td>Non-Native</td>
</tr>
</tbody>
</table>

Table 2. Details about students’ participants

<table>
<thead>
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<th>Pseudonym</th>
<th>Discipline</th>
<th>Duration of Study</th>
<th>English Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Thamir</td>
<td>Pre-professional</td>
<td>Freshman</td>
<td>N/A</td>
</tr>
<tr>
<td>2 Suliman</td>
<td>Pre-professional</td>
<td>Sophomore</td>
<td>N/A</td>
</tr>
<tr>
<td>3 Sajjad</td>
<td>Respiratory Therapy</td>
<td>Junior</td>
<td>N/A</td>
</tr>
<tr>
<td>4 Ammar</td>
<td>Emergency Medical Services</td>
<td>Senior</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Research Instruments

The interviews were piloted to determine whether they required modifications (Goldstein, 1995). After reviewing the pilot interviews, we clarified and reorganized the interview questions and procedures into three parts with 20 questions. Also, we observed three CAMS-A content-subject classrooms to learn about EMI implementation. One Arabic native English teacher and one subject teacher were observed in person. Due to access issues, the third observation was conducted online. We were trying to see how student mother tongue may influence their interaction when taught science by non-Arabic speakers. Document analysis was also done on the university’s EMI policy documents and website. Until our study, we could not locate detailed facts or authorized records outlining the reasoning for EMI adoption by university colleges.

To answer its questions, this study sampled six experienced teachers and students from each academic year. All study participants were from CAMS-A. This study's participants were male students and instructors from Al-Ahsa City. Two of them are at CAMS-A, where they participate in the EMI program despite Arabic being their first language. This study includes CAMS-A students and instructors who work in EMI settings. Ten people—six instructors and four students—participate. Two instructors—a British English specialist and a Pakistani biologist—are the only non-Saudis. The main reason for choosing only instructors and students is to allow people directly involved in the education process at CAMS-A to be heard.
Research Procedures

The interviews were transcribed using speech-to-text recording software. The text was not entirely accurate; therefore, it must be modified and revised. The data was organized, condensed, and summarised. "Generative codes" were used to dive information directly from the collected data (Beaudry & Miller, 2016). This study used phenomenology and symbolic interaction to interpret data. The symbolic interaction permits a socially formed rather than an individually constructed interpretation of meaning (Beaudry & Miller, 2016). To summarise and interpret the findings, the interview transcriptions and observation notes were analyzed and categorized.

Findings

This section discusses the most significant challenges facing EMI implementation in CAMS-A. Instead of categorizing these challenges based on who met them (i.e., instructors or students), we focus the discussion on the challenges themselves. This way of presentation will provide a better understanding of the challenge and how the participants felt about it. These challenges include a lack of students’ sufficient preparation in the English language, a lack of communication between English specialists and content instructors, misalignment between students and instruction expectations, and motivation issues.

The most significant challenge the data reveals was the pre-university English language preparations for the students. Although our participants’ students studied English for at least thirteen years before studying in the EMI, they still believe that their English language proficiencies are inadequately developed to the level where they can use the English language as a medium for their education. The notion is clearly articulated in the students’ following quotes:

- English education in schools was insufficient and limited to grammar instruction with no valuable results. (p.96)
- We learned about English grammar many times in school, thinking it would help us learn the language, but it didn't help at all. (Student's Quote, p.96)
- "If the teacher speaks English to students, it's hard for me to understand most of the conversation. But if the teacher speaks Arabic when they teach, we will be able to comprehend what they're trying to teach us" (p. 105)

The quotes about the students clearly explained how they saw their school English language preparations were not particularly helpful for their university education. They saw that their preparation was solely focused on learning abstract grammatical rules and developing using vocabulary and its usage. This kind of learning, the student described as unbeneﬁcial and useless for comprehension in science classes. Such an inadequate way of teaching the English language caused some students in the quote above to express the need to use Arabic in teaching. They felt that EMI could not be solely applied to teaching students with significant English language deﬁciencies. They felt that using EMI greatly challenges their comprehension of the knowledge taught in English.

Misunderstanding expectations is another challenge for implementing EMI in the current study context. Both content and English language instructors shared this misunderstanding in CAMS-A, Alahsa, as they have different expectations for each other. These misunderstandings can be observed in the quotes below of content versus English language instructors.

- "I won't teach students how to improve at English, but I will focus on the scientific aspects of the language. I won't cover grammar, reading, or language skills since students should have already been prepared for the foundation in English before they come to my class. I..."
don't have the expertise even if I wanted to help with their language skills. My main goal is to provide them with the science part of the subject, which I am specialized in and will help them succeed in my course." Muhin, the pharmacology instructor.

Assisting students in improving their English proficiency is outside my responsibilities as such tasks require time and expertise to teach language skills. Salim, an Emergency Medical Services lecturer,

"Our students often enter our preparatory program lacking the necessary language skills to pursue tertiary education in English. Our role is to successfully enhance their proficiency in studying health science in English. However, due to time constraints and the initial language level of our students, it is not always possible to fully bridge the gap. We do our best and rely on the content teachers to further support their progress." Nassir, English language specialists.

The content instructors need to enhance the student's English skills, as the English instruction in the pre-professional program is insufficient. The content teacher must strive to develop the student’s English proficiency further. (English language specialists, 2021, p. 109)

The above quotes show apparent tension in the expectations between content and English language instructors. They both drop the responsibility of improving students’ English skills on each other for different reasons. Although the language instructors believed that it was their job to help improve students’ English language proficiency, the time allocated for such a task by the program was insufficient, especially for students who entered the program with inadequate English proficiency. The content specialists also seem to need more time or expertise to help improve students' English language proficiencies, as they need to focus more on passing the scientific knowledge and skill to the students. The expectations of each group from the other are different and not communicated. Such tension between the content and the English language instructors seems to negatively influence the successful implementation of the EMI program in the college.

The various dialects and accents of English by which our content instructors spoke English posed a further challenge to the successful implementation of the EMI in the context of this study. The content instructors came from various backgrounds, and most did not speak English as their mother tongue. Although they could be great at science, the same cannot be said about how they spoke or used English. They spoke English with different vocabulary choices and speed when they taught. Such a variation in accents seems to have presented a great challenge for our students whose English language proficiency was inadequate. This sentiment is captured in the students' following quotes.

"Some teachers who don't speak English as their first language might not be clear, and it can be hard to understand them." (p. 119).

"During our time in government schools, we had Arab English teachers. It was common for them to use Arabic while instructing us in English. We were unaccustomed to teachers speaking solely in English or with unfamiliar accents, which challenged our understanding." These quotes highlight how accents could be challenging for successfully implementing EMI in our context. In addition to the students’ inadequate English proficiency, these Saudi students seemed unaccustomed to different ways of speaking English. The sound and speed at which the
content instructors use the language are unfamiliar to the students. Students’ lack of exposure to different fluency and speed with which the content instructors speak English seems to have negatively influenced the students’ study using EMI. These findings reflect a similar discussion in the EMI literature where content instructors’ linguistic abilities, including accents, are seen to hinder students’ comprehension in EMI settings (Saraceni, 2015; Vu & Burns, 2014). In her study, Al-Bakri (2017) reported that many of the students at Sultan Qaboos University faced challenges understanding content instructors who spoke with a rapid and heavy Indian accent.

The student’s participation during lectures is another area that was influenced by the implementation of the EMI in our context. During our observations, we noticed very limited interaction and participation in the classroom when content instructors used EMI. Most of the interactions were limited to a yes or no type of seeking clarification. Most of the students were following these patterns for asking for clarification, except for a few. We noticed that few students could ask detailed questions and provide further comments. In such observation, we noticed how the students' limited command of the English language could negatively influence their participation in an EMI course. We also observed first-hand how EMI can negatively influence students' comprehension. Such lack of engagement in EMI classes has been reported in many second language literatures (e.g., Ortega, 2015; Vogel & García, 2017). It was suggested that students often resort to their first language to understand lessons and often use fewer words of the second language in discussion (Anton & DiCamilla, 1998; Cook, 2001).

Rote memorization of scientific texts is another challenge resulting from implementing EMI in our context. Instead of attempting to understand the scientific concepts or problem-solve, many of our participants found themselves resorting to rote memorization, not for vocabulary but for entire texts. Such memorization could be daunting, tedious, time-consuming, and counterproductive. This notion was captured in Sajjad’s -a respiratory therapy student- following quote when discussing challenges for implementing EMI.

In addition to the burden of remembering many new words in English courses, many of us felt the need to memorize scientific texts also...; without truly understanding them. As a result, we often forget what we learned shortly afterward. (p. 130)

Because of their limited English language competencies and the lengthy nature of the scientific texts as well as the nature of the exams, our students use various coping techniques to compensate for their lack of understanding of scientific texts and to pass exams barely. Despite the challenge of lengthy scientific texts being discussed in the literature as being of the challenges that confront non-native students when studying in EMI (Sengupta, 2002, Shen 2013), rote memorizing of the entire scientific texts for passing exams in new. The problem here is not only about the implementation of EMI but could also be about the type of exams the students were subjected to.

Preparing lectures for EMI to be delivered to students whose English language ability is limited is a real challenge for many of the content instructors in our context. This preparation requires time and effort to simplify the science language to a level accessible to the students. Diluting scientific concepts and jargon was not something that many of the content instructors were able to do perfectly or were willing to do often. The following quotes reflect this argument.

I find teaching in English to be increasingly draining for these students. Their level of English proficiency is quite limited. As a result, I have to spend hours of preparation time trying to find a way to use English that is both understandable in conveying the knowledge and not compromising the scientific concepts and terms." (p.125)
Creating lesson plans in English takes longer than in Arabic. Finding the right balance between using Arabic and English in the classroom can be challenging. Due to the students' low English proficiency, much of class time is spent paraphrasing and thinking of what to say and write. This process is both time-consuming and effortful.” (p.127)

The quotes highlight the struggle that content instructors often battle within our context when using EMI. They often need to decide the right balance between diluting and simplifying science. Others, especially those who know Arabic, tended to use a mix of Arabic and English to be able to deliver their lessons. Those content instructors who were fortunate enough to know Arabic spent most of their lesson paraphrasing, hoping that they could get the science or the content to the students. This finding echoes Borg’s (2016) research, where a similar struggle was reported among Iraqi university professors who taught using EMI. They agreed that simplifying the science language is not only a daunting task but carries a risk of distorting scientific concepts and notions (Borg, 2016).

However, when presenting such a challenge about EMI, one must be careful not to conflate bad teaching with EMI challenges, as suggested by Başibek et al. (2014) and Dearden and Macaro (2016).

Discussion

The abovementioned outcomes align with the existing research, such as that of Al-Bakri, (2017) and McMullen (2014), where it was suggested that typically gulf students have very limited English language skills when they finish high school. Such inefficiency in the English language competencies negatively influences the student's ability to engage in any EMI. This highlights a need to restructure the language policy and how English language education is dealt with, as the “students themselves believe that they leave high school without gaining the requisite English skills necessary to enter their academic majors” (McMullen, 2014, p. 137). This finding is also consistent with Al-Bakri (2017), as many of her Omani university students believed that pre-university education does not prepare them adequately to get enrolled in programs accommodating EMI. These recognized challenges propel many Saudi tertiary education institutions to introduce additional English language education with various lengths for students enrolling in tertiary education (Macaro, 2018).

Moreover, the findings are not a complete surprise to us as they echo findings from other research studies on EMI, such as the one done by Al-Bakri (2017), Alkhateeb (2021), and Macaro (2018). At Sultan Qaboos University, Al-Bakri (2017) reported that many content instructors who taught using EMI did not believe that enhancing students’ English language proficiencies a key role in their teaching. They believed that the role was limited to helping students understand the knowledge and skills required for scientific topics in whatever form. Thus, it can be safely suggested that the content instructors care less about students’ English language competencies. Similarly, Alkhateeb (2021) reported that university students specializing in health sciences majors sometimes tend to adopt rote memorization strategies to study English-medium materials. This kind of strategy is useless and wasteful because students do not comprehend the materials appropriately and cannot maintain their knowledge for a long time. The results of this paper are strong indicators of the necessity of (1) reevaluating the implementation of EMI in tertiary education, (2) tackling students’ and instructors’ academic and language challenges, (3) reassessing the language policy in the university education where English is the only language of teaching, and finally (4) creating a harmonious learning environment where Arabic and English are utilized as a medium of instruction.
Conclusion

This paper explored the issues faced by students and instructors in the CAMS-A program at KSAU-HS when EMI was implemented. This paper argued that Saudi students in CAMS-A, whom AMI educated in pre-university education, experienced a sudden shift toward EMI at the university level. Consequently, such an immediate shift creates challenges for students’ English language skills, the language policy implanted by the university, and the expected learning outcomes. While in CAMS-A, students experienced inadequate preparation in the English language as there was a lack of communication between English specialists and content instructors. Thus, this paper proposed strategies to improve college students’ learning in EMI. These strategies include getting content and English language instructors to work collaboratively. The concept of collaborative Teaching Approach (CTA) proposed by Alkhateeb (2021) could work nicely in addressing most of the challenges that EMI is facing in our current context. This concept promotes cooperative work and effective and interactive communication among these three stakeholders, i.e., students, English specialists, and content instructors. Through such collaboration, all stakeholders can learn about the needs of each other and work of each other and thus adjust their expectations. However, for such collaboration to work, the university administration and policies should mediate the collaboration by creating an environment conducive to such a framework. These include careful attention to the synergy between the use of functional language in academic content areas, the process of language acquisition, and the appropriate design of English language curricula. In short, Policymakers must rethink their plans for implementing EMI in professional specializations to meet global and local needs. EMI’s strict adoption unfairly, indeed, affects students with inadequate English language competency. Therefore, it is important to officially recognize the supportive role of Arabic in helping students understand course materials. Many EMI instructors already use Arabic unofficially, so officially recognizing it would help students save time and effort by not having to root memorize or translate English materials into Arabic.

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Teachers’ Perceptions of Communicative Language Teaching Approach in English Grammar Teaching

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Abstract
Over the decades, the reform and opening-up policy of the 1970s has pushed China to become increasingly connected to the world, leading to a growing demand for foreign exchange. The need for English language talents has promoted the transformation of teaching methods and reforms to the national curriculum. In the early 1980s, Communicative Language Teaching was introduced into the EFL setting in Chinese English classes. However, there is minimal time to practice speaking and communicating, and researchers have debated its applicability in China. This study aims to explore the effectiveness of Communicative Language Teaching in English grammar teaching in three public secondary schools; the current teaching environment affects its application, and the constraints that may prevent teachers from using it. Through semi-structured interviews, qualitative thematic data were collected from five English teachers working in three cities in Henan province. The results show that the uneven distribution of teachers between the capital city (Zhengzhou) and the other two prefecture-level cities (Xinmi and Xinxiang), the difference in the textbooks used, and the disparity in the English proficiency of the students led to five teachers’ different views on the feasibility of CLT. The findings will provide pedagogical insights for Chinese English teachers and contribute to the government’s efforts to improve Chinese public secondary schools’ teaching and learning environment.

Keywords: Communicative competence, challenges and constraints of application, communicative language teaching, English grammar teaching, teachers’ perceptions

Introduction
With the rapid economic development, China’s scientific and cultural exchanges with other countries are becoming frequent, increasing the demand for high-level, English-speaking talents. But communicating in English has been a weakness for Chinese people due to linguistic and cultural differences (Mi, Chen & Zhang, 2018; Zhang, Li & Wang, 2013). Meanwhile, traditional English teaching methods have lagged far behind the current needs of society, and the improvement of speaking ability has not received sufficient attention in China (Chen, 2022; Eng & Peidong, 2021).

Relevant studies have shown that most current English teaching is still test-oriented (Liu, 2022). Classroom activities where students practice English involve more analyses of linguistic forms, resulting in few opportunities for authentic speaking practice (Alakrash, 2021; Çiftci & Özcan, 2021). Against this background, the policy of English Curriculum Standards for Compulsory Education (2011 Edition) was released and explicitly pointed out the necessity of cultivating Chinese students’ communicative competence, which coincides with the purpose of CLT.

However, most English teachers in China are still confused about what CLT is, how to use it, and when to use it (Chen, 2022; Liu, 2022; Sun, Wei & Young, 2022; Wu et al., 2023). They still follow traditional teaching methods in CLT-led classrooms, resulting in too much grammar learning and inadequate development of communicative competence for students (Alakrash, 2021). Moreover, discussions on the application of CLT are almost based on one background, without narrowing down to consider the diversity of different regions (Liu, 2015; Alakrash, 2021; Doeur, 2022; Han, 2022; Sun et al., 2022). Therefore, the following three questions will guide the entire process of the study:

1. What are the teachers’ perceptions of applying CLT to English grammar teaching in secondary schools in China?
2. How does the current teaching environment affect the application of CLT in Chinese public secondary schools?
3. What are the factors that may prevent teachers from using CLT?

By exploring these issues, this research attempts to make a practical contribution to the application of CLT in English grammar teaching in Chinese secondary schools. It may help English teachers to gain a deeper understanding of CLT, thereby improving their pedagogical knowledge and teaching skills. Concerning teaching materials, education departments can be encouraged to broaden the selection of teaching materials and help teachers find authentic materials suitable for students. It can also point out the direction for the future development of English education in Chinese secondary schools.

Literature Review
Communicative Language Teaching
Communicative Language Teaching (CLT) is a fundamental teaching approach that focuses on developing learners’ communicative competence (Radosavlevikj, 2021), the core theoretical concept that deals with knowledge and use. Hymes (1972) first proposed the “communicative competence” theory, emphasizing that linguistic competence is only a part of communicative competence and advocating that learners should use language concerning its grammaticality and acceptability. Then, based on the theory, Hymes (1972) formalized the concept of CLT. For a specific definition of communicative pedagogy, Wu et al. (2023) clarified that any classroom
activity should be based on authentic contexts, aim to develop students’ communicative competence, and focus on the language output process to promote language acquisition effectively. **Communicative Competence**

Savignon (2002) classified communicative competence into four components: grammatical competence (use of grammar knowledge), sociolinguistic competence (acquiring language knowledge and using expressions), strategic competence (native language and English usage strategies), and discourse competence (mainly refers to communication abilities) (Figure one).

![Figure 1. Components of Communicative Competence (Savignon, 2002, p.8)](image)

Figure 1 shows that students develop and improve communicative competence through exercises within various environments. The four components of communicative competence are correlative and cannot be developed separately, nor can they be strung from one element to another. Instead, “when an increase occurs in one domain, that component interacts with others to produce a corresponding increase in overall communicative competence” (Savignon, 2002, p.8).

**Arguments of CLT and Focus on Grammar**

Beginning in the 1960s, the direction of language teaching shifted from structural to communicative orientation (Çiftci & Özcan, 2021). Despite that, there was no consensus about applying CLT to EFL contexts, as a misconception has arisen that CLT does not emphasize grammatical correctness (Chen, 2022). Some ELT (English Language Teaching) scholars, like Wu et al. (2023), pointed out the beneficial role traditional methods played in the EFL environment and suggested that it was more practical and productive than CLT in teaching and learning English grammar.

On the contrary, Radosavlevikj (2021) and Sun et al. (2022) argued that grammar teaching does not meet communicative needs. As Littlewood (1985, p.40) remarked, communicative language use was only possible by the grammatical system and its creative potential (as cited in Alamri, 2018). CLT can maintain its effectiveness by completing more authentic learning tasks with comprehensible input and learner’s language output (Çiftci & Özcan, 2021; Eng & Jiaxi, 2022). Therefore, despite its critics, CLT has gained widespread acceptance in language studies.
CLT in English Grammar Teaching in China

Other scholars, however, have taken skeptical positions, arguing that full implementation of CLT in Asia is virtually impossible (Eng & Jiaxi, 2022). In Chinese English classrooms, both the Grammar Translation Method and the Communicative Language Teaching (CLT) method were employed (Wu et al., 2023). But since CLT was introduced to China in the 1970s, grammar teaching has still received more attention than CLT (Chen, 2022). For example, students in Zhang’s (2023) research appeared to be reluctant to accept CLT because there was a mindset that it did not guarantee sufficient grammar knowledge to pass the exam. Teachers were also unaware of compatible grammar teaching and CLT (Chen, 2022). It was revealed by Wu et al. (2023) that China’s EFL language environment determined that grammar should be taught within the framework of CLT because it originated from ESL contexts (Zhang, 2023).

On the other hand, CLT emphasized “student-centered” learning, with teachers’ role changed from that of classroom controller to that of knowledge facilitator (Radosavlevikj, 2021). Nonetheless, Chinese students were accustomed to passively accepting grammar knowledge imparted by teachers (Eng & Jiaxi, 2022), resulting in a mismatch between CLT and the Chinese language learning environment (Han, 2022). Furthermore, the lack of sufficient teaching experience of novice teachers and the adherence of senior teachers to traditional grammar teaching methods led to a lack of thorough understanding of CLT by both (Wu et al., 2023). Some teachers were skeptical about CLT’s cultural adaptability and compatibility in the Chinese teaching environment (Mi et al., 2018; Han, 2022; Zhang, 2023).

What’s more, most previous studies were conducted on a single teaching and learning environment (Alamri, 2018; Han, 2022; Zhang, 2023) or at most two groups (Doeur, 2022; Sun et al., 2022), without taking into account regional diversity. It is now an apt time to narrow the scope of research contexts and study the practicability of CLT in China. This research is intended to investigate teachers’ perceptions of employing CLT to teach English grammar, the effect of contemporary teaching background on using CLT, and factors that may hinder teachers from using CLT.

Methods

Edmonds and Kennedy (2017) present that a case study is typically used with a phenomenological perspective, making it suitable for in-depth analysis of a finite number of participants and exploring a phenomenon’s lived experience. This research conducted a qualitative case study to fulfill the research objectives.

Participants

According to Busetto, Wick and Gumbinger (2020), during a qualitative study, there should be a sampling plan to describe the sampling parameters (participants, settings, events, process) to be consistent with the purpose of the study. Given the nature of this qualitative study, a purposive sampling plan was used as the research term for qualitative sampling was purposive (Creswell, 2012). Also, concerning that any macro and micro phenomenon being studied can be seen as a case (Creswell, 2012). In this research, Henan Province was chosen as the study location as Henan was the researcher’s hometown, and it was convenient for the researcher to invite participants.

Five qualified in-service teachers in three public secondary schools in Henan province were invited. Two of them taught in Zhengzhou (provincial capital) and two in Xinmi (prefecture-level cities), coupled with the rest in Xinxiang (prefecture-level city). The age of teaching, the level of
schooling, different experiences, and regional differences were all consideration factors. But considering the consistency of student levels and stages of education, this study was limited to choosing second-year public secondary schools as a reference (see Table one).

Table 1. Participants’ Information

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Teaching Age</th>
<th>Students Grades</th>
<th>Region</th>
<th>Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Female</td>
<td>43</td>
<td>30</td>
<td>8</td>
<td>Zhengzhou</td>
<td>English Bachelor Education</td>
</tr>
<tr>
<td>T2</td>
<td>Female</td>
<td>27</td>
<td>5</td>
<td>8</td>
<td>Xinxiang</td>
<td>Education Bachelor</td>
</tr>
<tr>
<td>T3</td>
<td>Female</td>
<td>26</td>
<td>4</td>
<td>8</td>
<td>Xinmi</td>
<td>Education Bachelor</td>
</tr>
<tr>
<td>T4</td>
<td>Female</td>
<td>26</td>
<td>4</td>
<td>8</td>
<td>Xinmi</td>
<td>Education Bachelor</td>
</tr>
<tr>
<td>T5</td>
<td>Female</td>
<td>56</td>
<td>34</td>
<td>8</td>
<td>Zhengzhou</td>
<td>Education Bachelor</td>
</tr>
</tbody>
</table>

Research Instruments

Five participants’ perceptions during the semi-structured interviews were recorded and transcribed into English. The data was processed by N-vivo software and analyzed thematically into each code deductively following the framework of Dubin and Olshtain (1986), as it was comprehensive and covered six influential elements of the EFL context (see Figure two).

Figure 2. Elements of an EFL Context (Dubin & Olshtain, 1986, p.96)

Research Procedures

This research was divided into three stages. First, to ensure reliability, the draft interview protocol included guiding questions designed to guarantee that nothing important was omitted and that...
appropriate question wording was used. Second, semi-structured interviews were conducted in each participant’s office to encourage participants to state their views (Busetto et al., 2020), and the recording process was taken place simultaneously after the participants’ consents were obtained. Third, thematic analysis was performed to analyze the qualitative data.

**Results**

To present results, data collected from interviews as emerging themes will be discussed about Dubin and Olshtain’s (1986) theoretical framework. The results indicated that though participants were all from public secondary schools, different perceptions of the feasibility of CLT occurred.

**Participants—Instructors**

*The influence of past learning experiences on grammar teaching*

First, two senior participants who had been teaching for more than thirty years expressed unapprehended and resistant thoughts about CLT (see Table two).

<table>
<thead>
<tr>
<th>Participants</th>
<th>Response</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>We have gotten used to explaining grammar rules deductively in Chinese...then wrote a lot of words or grammar...students followed and kept taking notes...</td>
<td>Deductive teaching of grammar</td>
</tr>
<tr>
<td>T5</td>
<td>The exam-oriented education did not set extra while-class and after-class activities to practice speaking...grammar should even be considered the top priority in teaching...</td>
<td>Exam-oriented education, focus on grammar</td>
</tr>
</tbody>
</table>

Years of teaching experience had persistently led participants to insist that grammar was the priority and that CLT did not emphasize grammatical correctness. Apart from senior teachers’ dedication, some novice teachers subconsciously conveyed the same perception. T2, who has just started her career as a teacher, remarked on the teaching approach that her English teacher used when she was a student and deemed that “traditional grammar teaching...and test-oriented English education...still useful for preparing students for exams”.

**Uneven distribution of high-quality teachers among cities**

When asked about teaching faculty, a participant in Ximmi (T4) complained that her school was in absence of qualified, postgraduate-level teachers due to backward economic development and their unwillingness; she said, “More than half of the teachers in my school were over 40 years old, and quite a few had only college or bachelor’s degrees.”

Also, a participant from Xinxiang suggested that CLT might be more feasible for schools in the provincial capital city, “Zhengzhou set the highest requirements for capable teacher recruitment, including educational background, integrated language skills, and well-prepared teaching abilities. Well-paid treatment by the government could retain them”.

**Participants—learners**

*The Disparity in students’ English proficiency*

CLT demands a high standard of communicative competence. When asked about the constraints of adopting CLT, three participants mentioned (see Table three):
Table 3. Differences in students’ English proficiency

<table>
<thead>
<tr>
<th>Participants</th>
<th>Responses</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2</td>
<td>could not express fluently without fixed sentence patterns and expression templates...</td>
<td>Weak oral expression</td>
</tr>
<tr>
<td>T3</td>
<td>adoption of CLT depends largely on students’ English proficiency...</td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td>Their current English proficiency was not yet adapted to the CLT approach after consideration.</td>
<td>students’ English proficiency</td>
</tr>
<tr>
<td>T1</td>
<td>Students from Zhengzhou were cultivated cultural and language qualities from childhood, and they will be more receptive to CLT.</td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td>They will become more active... show great interest... and enjoy participating... in the class.</td>
<td></td>
</tr>
</tbody>
</table>

Notably, they all showed the constraints of adopting CLT, while the other two teachers from Zhengzhou (T1 and T5) faced no such troubles (see Table three). The comparison made it clear that the disparity in students’ English proficiency due to regional differences in literacy and education levels made teachers cautiously consider using CLT.

Acceptance of Communicative Language Teaching

On the contrary, reviewing classroom performance, participant T2 voiced, “They preferred to participate in communicative activities than doing drill-and-practice grammar exercises...” and T3 praised that their grammatical knowledge might effectively improve through CLT. “Students today were more articulate than those of our time. They were no longer afraid to speak out”. However, for those students who were more dependent on teachers’ explicit explanations of grammar, they preferred the traditional way of teaching grammar. As T3 remarked, “For students with poor language basis, they may not get much improvement from CLT... teachers were needed to summarize and explain knowledge explicitly and deductively”. Consequently, full implementation of CLT was almost impossible.

Language input resources—teaching materials

Over-reliance on the textbook

When asked how employed CLT in classrooms, the typical response was an over-reliance on textbooks. The current textbook, Go for It, is used for public secondary schools (grades 7-9) in China. Each unit consisted of two sections and involved four language skills—Listening and Speaking-Roleplay in Section A, Reading and Writing-Self Check in Section B (see Appendix A). Participants from Zhengzhou suggested using CLT in section A, as T5 said, “Section A of each unit had a task module that required students to do communicative activities such as role-play...”. T1 also clarified, “...the first few sections of each unit focused on listening and speaking objectives and required grammar knowledge to be covered in the conversation, so I used CLT there”. Notwithstanding, Go For It, as the only textbook, was wholly relied upon and followed by participants. The content of Section A was an indispensable element for designing communicative activities.

Language input resources—language setting

The lack of an authentic environment

Given that CLT originated from a native-speaking context, participants mentioned the situation when expressing views on the practicability of CLT in China (see Table Four).
Table 4. Participants’ statements on the lack of an authentic environment

<table>
<thead>
<tr>
<th>Participants</th>
<th>Responses</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>CLT required an authentic language context... because after classroom learning, students chatted in Chinese...they all communicated with parents in Chinese...though they all communicated with parents in Chinese...though</td>
<td>lack of an authentic environment could weaken the effectiveness of CLT</td>
</tr>
<tr>
<td>T5</td>
<td>some were well-educated parents, most did not possess such competence.</td>
<td>This led to unsatisfactory results despite teachers’ best efforts to assign after-school speaking tasks. The language learning environment loses its practical purpose due to the discrepancy between purposefully designed classroom activities and students’ actual lives.</td>
</tr>
</tbody>
</table>

**Outer setting—educational policy**

**Examination-oriented**

A deeply ingrained feature of Chinese education was exam-oriented education, which put tremendous pressure on teachers (See Table five).

Table 5. Participants’ complaints about China’s test-oriented examination

<table>
<thead>
<tr>
<th>Participants</th>
<th>Responses</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2</td>
<td>I am currently teaching in Grade 9, a stage where students will soon take high school entrance exams. They are under a lot of pressure.</td>
<td>Teaching for exam purposes</td>
</tr>
<tr>
<td>T1</td>
<td>at least two-thirds of my teaching time was spent preparing students for the upcoming High School Entrance Examination...students’ exams were still dominated by grammar knowledge...it was the most important teaching task...</td>
<td>Full of grammar knowledge in Chinese English exam</td>
</tr>
<tr>
<td>T4</td>
<td>CLT focused more on fluency than language accuracy...it may not be applicable for exam preparation...the test should be more focused on students’ communicative competence... Otherwise, it’s like what we used to call ‘dumb English...’</td>
<td>Transfer of test orientation</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be seen that speaking had not received sufficient attention because it was not part of the exam in China. Nevertheless, one senior participant (T5) considered that language-applied ability was more critical than grammar and exams (see Table five) and indicated that grammar is a necessary foundation for English learning.

**Goals of the English curriculum in NECS**

Furthermore, T5, a senior teacher, only she complained about the policy that “the New Curriculum Standards mentioned too many teaching objectives... using only one teaching method in the classroom may not achieve the goals required by the policy”. Therefore, cultivating students’ comprehensive language competence requires a combination of different English teaching methods should be suggested to accelerate the realization of the teaching objectives.

**Outer setting—educational policy**

**Grammar-based English teaching**

It was evident from detailed descriptions of the five participants that they tended to emphasize the mastery of grammar. Nonetheless, T5, advised by her thirty years of teaching experience, “We should encourage students to discover grammar rules on their own as they learn.” Likewise, T4, a novice teacher with four years of teaching, suggested that “students should learn English
inductively; I just help them summarize the grammar rules rather than explaining English in Chinese at the beginning.” (T4)

The results showed that teachers’ past learning experiences as students negatively influence on their grammar instruction. Besides, the uneven distribution of teaching faculty and disparities in students’ English proficiency among the three cities affect teachers’ acceptance of the Communicative Language Teaching approach. As for the textbook Go for It, the findings revealed that even when CLT was applied to the classroom, participants were overly reliant on the book, so CLT was still based on a traditional teaching.

Last but not least, the lack of an authentic English learning environment causes students to be unable to learn grammar knowledge and improve their comprehension effectively through CLT. Grammar teaching under CLT cannot be implemented effectively. Ultimately, whether or not CLT is used appropriately in the Chinese English classroom also depends on the specific education and learning environment.

Discussion

Question One: What are the teachers’ perceptions of applying CLT to English grammar teaching in secondary schools in China?

This research revealed that all teachers agreed to some extent that CLT contributed to students’ grammar learning. However, given the linguistic and cultural contexts, CLT may not be as effective as expected in China. Since English in China is a foreign language, not a second language as it is in Malaysia or Thailand, Mandarin (Putonghua) remains dominant. It is used as the official lingua franca of the country and the primary language of school instruction (Mi et al., 2018). Such an EFL environment has been subtly influencing how Chinese people learn English, creating a conflict between the Chinese context and the employment of the CLT approach.

From teaching perspectives, as indicated in the five participants and other studies concerning the application of CLT (Çiftci & Özcan, 2021; Radosavlevikj, 2021; Sun et al., 2022), they held unacceptable attitudes, presenting that CLT did not emphasize grammatical correctness. This finding was consistent with Eng and Jiaxi (2022), who insisted that novice teachers’ lack of pedagogical knowledge and experience and veteran teachers’ stubborn adherence to traditional teaching approaches led to a lack of understanding of CLT.

In addition, the uneven distribution of teaching faculty led to a constraint on using CLT in local cities outside of Zhengzhou. Likewise, the study of Sun et al. (2022) on teachers’ views on CLT in a Chinese metropolitan area and Doeur’s (2022) study of a school in a Cambodian slum showed that teacher disparities between cities lead to different teaching outcomes. Consequently, full implementation of CLT was almost impossible though Alakrash (2021) and Doeur (2022) believed that CLT was a more flexible approach to which most students were more receptive.

Question Two: How does the current teaching environment affect the application of CLT in Chinese public secondary schools?

From the findings, teachers’ understanding of CLT was inadequate. Because they are not aware of the authentic context required to complete the language task and the communicative purpose behind the task (Eng & Jiaxi, 2022), this led to unsatisfactory results in the true purposes of CLT despite teachers’ best efforts to assign after-school speaking tasks.

Additionally, in China’s test-oriented education environment, many teachers sacrifice teaching fluency to improve language accuracy and test scores. According to the participants, CLT was time-consuming. It did not guarantee students learn enough grammar to pass the exam, echoing
the relevant study conducted by Alakrash (2021). However, Wu et al. (2023) considered language applied ability more critical than grammar and exams. Similarly, Çiftci and Özcan (2021) argued that linguistic competence was integral to communicative competence. Thus grammar could not be considered unimportant.

Also, less attention of the participants was paid to the development of speaking skills due to the lack of standardized official tests of spoken English in secondary schools (Alamri, 2018). Teachers then neglected to develop students’ speaking skills. As a result, CLT could not be widely implemented in classroom teaching.

Question Three: What factors may prevent teachers from using CLT?

This study also showed a gap between the capital city (Zhengzhou) and the other two cities (Xinxiang and Xinmi) in the province in terms of teaching quality, teachers’ background, and students’ English proficiency, which led participants to hold different views on the feasibility of CLT. Compared to the two teachers working in Zhengzhou, the other three hesitated to accept that CLT might complicate English courses and reduce students’ learning motivation.

Schools in Zhengzhou usually have high standards when recruiting teachers. They provided teachers with high salaries, training, and extensive career development, so many highly qualified or versatile teachers prefer working in Zhengzhou. The situation has resulted in an uneven distribution of the teaching force in different cities in a province.

Furthermore, as the only unified textbook across the nation, Go For It gave participants little freedom to choose their teaching materials suitable for students, resulting in a mismatch between the syllabus and the purpose of the CLT. Therefore, all these factors become the constraints that limit teachers’ understanding and application of CLT.

Conclusion

This study chose China’s three public secondary schools in one province to investigate the practicability of CLT in teaching English grammar and to gain insight into teachers’ perceptions of using CLT. The findings revealed that this method did not achieve the expected educational results. Teachers’ past learning experiences, the uneven distribution of teaching faculty and disparities in students’ English proficiency, the only unified textbook, students’ preference for grammar knowledge than communication, the lack of a systematic set of standard speaking tests and rating criteria, and the EFL English learning environment were all the causes.

It is proposed to set the future transformation in using CLT in secondary school classrooms by establishing a standardized English-speaking test and evaluation criteria like IELTS. Moreover, to narrow the education quality between cities, local governments should bring in more professional teachers to improve educational quality and students’ awareness of oral expression. Regarding teaching materials, teachers should combine the theoretical knowledge of textbooks to find a more authentic corpus close to students’ daily lives and design communicative activities with exact purposes.

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References


Appendices

Appendix A

Textbook Example (Unit 1)
Saudi Teachers' Perceptions of Teaching English at the First Grade

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Abstract
Since English was recently introduced into the grade 1 curriculum in Saudi primary schools in 2021, this questionnaire study examines the perceptions of 1766 Saudi English teachers regarding the introduction of English into this stage, the obstacles posed to its success, and suggestions as to how to ensure the new policy’s effectiveness. The data were collected three months prior to the introduction of English in the grade 1 curriculum using a large-scale questionnaire. The teachers expressed positive perceptions of the introduction of English teaching and learning at this level, and the majority reported that it will have a positive effect on the proficiency of Saudi students in the English language. The respondents reported on the potential challenges they may encounter when teaching English at grade 1, with the major obstacles including the large number of students in classes, the use of textbooks that contain too much information, and a lack of access to new learning technologies. They overwhelmingly expressed that providing teachers with modern technologies, enrolling grade 1 English teachers on specialized courses, and increasing the number of English classes per week, would all help ensure the effectiveness of the new policy.

Keywords: Grade 1, Primary, Saudi teachers’ perceptions, Teaching English

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Introduction

First of all, an overview of language learning in Saudi Arabia will be provided. Arabic is the official language of Saudi Arabia and, as the official language, is taught in schools and used in all institutions and most media outlets. Arabic is the main language (the L1) in Saudi Arabia but learning a second language is considered desirable, and there is an emphasis on English, which is the only foreign language introduced in Saudi schools. Al-Seghayer (2005) states that ‘overall, English plays an important role in Saudi Arabia on a large scale, as well on a personal level. The Saudi government views English as a vital facet of the process leading to the development of the country’ (p. 157).

There are contextually specific elements of EFL in Saudi Arabia and the environment in which English is taught and learned. English is mainly introduced in schools, universities, and the media. A brief review of the general objectives set by the Saudi Ministry of Education for teaching English highlights these elements and reveals the cultural values that the Ministry considers in terms of teaching and learning English. These objectives include general ones that learners should achieve when learning any L2 in any context; for example, to ‘enable the student to acquire basic language skills (listening, speaking, reading and writing)’. However, according to the Ministry, certain objectives reveal the importance of Saudi Arabian cultural values in terms of learning English in the Saudi context. These objectives include:

- To enable the student linguistically to present the culture and civilization of his nation.
- To enable the student linguistically to benefit from English-speaking nations and thereby enhance the concepts of international cooperation to develop an understanding and respect for the cultural differences between nations (Mahibur Rahman & Alhaisoni, 2013, p. 114).

English learning in primary schools was introduced in 2004 and expanded into the fourth year of schooling in 2011. More recently in 2021, English was introduced into the grade 1 curriculum. This shows the government’s awareness of the importance of English as a global language and the importance of learning English from an early age. The relatively recent introduction of English into primary school curricula suggests that L2 learning of English has not been a major priority of government policy in the past, despite English having been introduced in primary schools in other countries significantly earlier in time.

Another issue that differentiates the Saudi context from other EFL contexts is the presence of gender segregation in education, with schools and colleges composed of boys only or girls only. This shows the role that cultural values play in the formation of educational policy. The bulk of English learning in Saudi Arabia is classroom-based, as English is taught as a foreign language in Saudi Arabia rather than as a second language (ESL) as it is in several countries (e.g., India, Nigeria, etc.). Because English is taught as a foreign language, the opportunities for Saudi EFL learners to practice English in their daily lives are quite limited to classroom-based activities as compared to learners in other countries who may have the opportunity to develop their English in a wider range of contexts. Other languages, such as French, are rarely taught and tend to be made available at private language learning centers. Both public and private schools employ compulsory
textbooks for teaching languages. English learning in Saudi Arabia is thus significantly classroom-focused and the set textbooks are a crucial source of L2 acquisition.

To provide a better understanding of teachers’ own perceptions of English teaching at grade 1 in Saudi Arabia, the obstacles posed to the inclusion of English in the curriculum, and the potential enablers of success for the new policy, the current study examines the following research questions:

a. What are Saudi English teachers’ perceptions of the introduction of English at grade 1?

b. What, in the Saudi English teachers’ opinions, are the potential challenges that may be faced in teaching English at grade 1?

c. What suggestions can Saudi English teachers offer to aid the success of the introduction of English into the grade 1 curriculum?

Literature Review

Teaching English at an Early Age in the Saudi Education System

English is the major international language, used as a means of global communication in transportation, banking, commerce, and interactions with technologies. Since Teaching English to Young Learners (TEYL) is what Johnstone (2009) called the world’s biggest policy development in education, the implementation of English teaching at an early age has drawn huge attention from educational practitioners and researchers engaged in ongoing investigations to determine the language learning process at this critical age.

Policymakers, researchers, and practitioners tend to argue that the implementation of English language learning at an early age is important, and the introduction of EFL teaching in the primary stage of the Saudi school system has been informed by this argument. This imperative to introduce English at an early age will remain strong so long as English is considered a vital asset for Saudi citizens to partake in society, the global economy, and international business and knowledge exchange. It continues to be a communication tool essential for trade, business, traveling, and interactions with expatriate workers in Saudi (Alshumaimeri, 2010). As Al-Braik (2007) states, one of the key reasons that the English language is considered so important in the Saudi education system is its perceived economic value. Saudi citizens’ capacity to communicate in English is held to be vital to Saudi economic competitiveness. Irrespective of this, learning English at an early age can have a profound impact on a student’s language development in several additional ways. Kecskes and Papp (2000) have suggested that higher metalinguistic awareness helps learners to develop a more conscious and sophisticated use of their own (L1) language system.

Some arguments have been put forth about the cultural and cognitive effects of the implementation of English language learning at the primary school level. According to Elyas (2008), Saudi public primary schools have not hitherto introduced English until the fourth grade because of the community concern that English language teaching may affect the Arabic identity of young students. This has led to the claim that the English language should not be taught to young learners until they are adults and fully proficient in their first language, which itself can be
disturbed by the L2 learning process (Aljohani, 2016). Aldosari and Alsultan (2017) have, however, investigated the effect of English learning on Arabic language (as a first language) literacy skills in the second grade of primary school in Saudi Arabia, and found no negative impacts on reading and writing skills in Arabic if English is taught from the beginning of formal schooling.

**Challenges Facing EFL Teaching at an Early Age**

A range of factors has affected the process of implementing English language learning in primary schools in Saudi Arabia. Most reports have demonstrated that these factors relate to the beliefs of citizens, curriculum contexts, pedagogical issues, and educational management practices, among others. These factors are discussed in the following sections:

*Environment-related Issues*

The learning environment is considered an important factor when it comes to learning practices and curriculum design. Elyas and Al-Gigri (2014) claim that the environment is one of the key factors affecting students’ achievement levels in schools, as well as teachers’ performance. Educators are accordingly obliged to address issues that pose a conflict of interest to create a healthy learning environment for all students. Nouraldeen and Elyas (2014) have emphasized that a desire to block the influence of foreign cultures resulted in Saudi Arabian citizens’ refusal to accept English teaching when it was first introduced in the country.

The importance, both intellectual and cultural, of preserving and learning the Arabic language has affected the success of English language teaching in Saudi Arabia, due to the belief of some citizens that teaching English, especially at an early age, might disturb Arabic language acquisition. As Al-Seghayer (2014) highlights, there is a fear that English will impact Arabic use and possibly erode Arabic culture, customs, and identity, and this has demotivated some Saudi learners from attempting to learn English, in turn hindering their academic achievement.

*Teacher-Related Issues*

In any learning process, the provision of a sufficient number of experienced teachers who can facilitate student learning effectively is essential. As Mahboob and Elyas (2014) note, in developing countries, the huge increase in enrolment of EFL students in recent years has not been met with an adequate supply of well-qualified teachers.

Solutions to the short supply of experienced English teachers have been discussed by Wedell and Alshumaimeri (2014), who, in their survey, reported that some countries, like Hungary, China, and Indonesia, have added English teaching to the responsibilities of existing teachers regardless of their personal English proficiency level. An experienced teacher knows how to turn the classroom into an interactive and stimulating one and can motivate students, so in some ways, this can help, but strong teacher proficiency in English is vital. Saudi students, in addition, often lack the intrinsic motivation for learning and speaking English beyond the classroom (Liton,
2012). This lack of motivation is the key constraint on Saudi students’ English language acquisition (Al-Seghayer, 2011). A lack of intrinsic motivation inhibits the pace and success of foreign language learning (Elyas, 2014).

In addition, teaching techniques play a major role in learning any subject, and this is especially so when teaching English as a foreign language. As has been observed by several researchers (e.g. Alkubaidi, 2014; Alrabai, 2014; Shehdeh, 2010; Rajab, 2013), some English teachers in Saudi Arabia use Arabic to teach the English language, which has resulted in student reliance on inappropriate learning strategies. By memorizing the textbook on which the exam will be based, they pass and attain high marks without actually learning the language (Alkubaidi, 2014). Memorization is one of the techniques that might have exacerbated inadequate English proficiency. A teacher’s training, both pre-service and in-service, is another factor that determines the effectiveness of English language teaching. Wedell and Alshumaimeri (2014) have explained that teacher training usually aims to introduce teachers to basic principles about how children learn, including acquiring the English language, as well as recommended approaches to teaching, and improved training will unequivocally boost morale and motivation in L2 learning environments.

**Educational Management-Related Issues**

Educational management plays an important role in shaping the learning and teaching process. Management takes responsibility for organizing, planning, and directing learning activities in the school. It also manages teachers’ welfare, and it creates links between different levels of education and training to ensure strong learner attainment.

For any learning process to be successful, including the English language learning process, effective and well-designed instructional materials and teaching resources need to be provided. Also, classroom management is a crucial skill in primary education, which should be considered in teacher education (Copland et al., 2014). In Saudi Arabia, as Shehdeh (2010) notes, some schools simply do not provide relevant teaching resources for L2 learning, such as wall charts, flashcards, posters, audio and visual aids, language software, e-learning resources, computer language laboratories, or other facilities. The unavailability of such teaching resources usually results in teachers relying heavily and only on textbooks and the whiteboard. Some teachers choose to design their own teaching materials but they often lack professionalism and are not as effective as they could be (Elyas, 2014). Alqahtani (2019) also argues that insufficient access to teaching/learning resources and modern technologies is a critical obstacle to teaching English in Saudi Arabia.

**Method**

**Participants**

The study sample consists of randomly 1766 Saudi teachers of English (83 males and 1683 females). They work in different regions in Saudi Arabia and teach different educational levels
Most of them hold a bachelor's degree (95.3%) while very few hold a master's degree (4.7%) (see Table Four).

**Research Instruments**

This study used a semi-structured questionnaire to investigate teachers’ perceptions of the introduction of English in grade 1. The questionnaire, as a data collection tool, allows for a wide range of information to be collected, at little expense in terms of time and money, from a large group of respondents (Coolican, 2009). The questions in most questionnaires can be categorized into three major types: (i) questions of fact, such as age, gender, or level of education; (ii) questions about opinions, beliefs, or judgments; and (iii) questions about behavior (Grillham, 2007).

The questionnaire schedule developed in this study was based on the objective of directly answering the research questions. The questionnaire was divided into four parts: (i) the first part collected data on teacher demographics; (ii) the second part collected data on the teachers’ perceptions of the introduction of English at grade 1 of the Saudi education system; (iii) the third collected data on the English teachers’ opinions as to the potential challenges involved in introducing English at grade 1; (iv) the fourth part of the questionnaire collected data on the teachers’ suggestions for measures that would aid the success of the recent introduction of English into the grade 1 curriculum.

**Research Procedures**

The data were collected three months prior to the introduction of English into the grade 1 curriculum. The questionnaire was sent to the participants by email and they were asked to provide answers to an online semi-structured questionnaire. The purpose of the study was explained on the first page of the questionnaire and it was clearly stated that participation in this study is voluntary.

**Data Analysis**

The questionnaire was tested for reliability and validity via a piloting phase that was used to identify potential problems and faults in its design by asking four teachers to complete the questionnaire. For the analysis, the participants’ responses were input into SPSS 20.0 and subjected to various descriptive and inferential analyses.

**Results**

Tables one, two, three, and four show the respondents' demographic characteristics, including regional location, years of experience in teaching English, level taught, and highest ELT qualification.
Table 1. Respondents by regional location

<table>
<thead>
<tr>
<th>Regional location</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western</td>
<td>650</td>
<td>36.8</td>
</tr>
<tr>
<td>Eastern</td>
<td>68</td>
<td>3.9</td>
</tr>
<tr>
<td>Northern</td>
<td>240</td>
<td>13.6</td>
</tr>
<tr>
<td>Southern</td>
<td>527</td>
<td>29.8</td>
</tr>
<tr>
<td>Central</td>
<td>281</td>
<td>15.9</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2. Respondents by years of ELT experience

<table>
<thead>
<tr>
<th>Experience in years</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 years</td>
<td>858</td>
<td>48.6</td>
</tr>
<tr>
<td>11-20 years</td>
<td>771</td>
<td>43.7</td>
</tr>
<tr>
<td>21-30 years</td>
<td>136</td>
<td>7.7</td>
</tr>
<tr>
<td>31-40 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3. Respondents by level taught

<table>
<thead>
<tr>
<th>School stage</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-school</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Primary</td>
<td>751</td>
<td>42.5</td>
</tr>
<tr>
<td>Intermediate</td>
<td>538</td>
<td>30.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>477</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4. Respondents by highest ELT qualification

<table>
<thead>
<tr>
<th>Highest degree obtained</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor</td>
<td>1683</td>
<td>95.3</td>
</tr>
<tr>
<td>Master</td>
<td>79</td>
<td>4.7</td>
</tr>
<tr>
<td>PhD</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

In terms of the English teachers’ years of experience, 48.6% of respondents had less than 10 years of experience, while 43.7% had more than 11 years, and 7.7% of the respondents had more than 21 years of experience.

In terms of the level of education taught by the respondents, many of the respondents taught at the primary level (42.5%), only 30.5% taught at an intermediate level, and just 27% of the respondents taught at the secondary level.

In terms of qualification level, the majority of respondents held a bachelor’s degree only (95.3%), whilst 4.5% held a master’s degree.

2. Teacher perceptions of the introduction of English language teaching in grade 1
Section two of the questionnaire asked the teachers about their perceptions of the introduction of English language teaching at the primary school level. The first item in this section asked about their opinions of the ideal stage to start teaching English. 43.9% of the teachers (n= 775) suggested that English language teaching should start from the preschool level, and this was the response made by the greatest number, with 33.5% of respondents (n= 592) suggesting primary grades 1-3, 21.2% of respondents (n= 375) suggesting primary grades 4-6, and just 1% of respondents (n= 18) suggesting intermediate level. None of the respondents suggested a secondary level.

As per Table six, the respondents were asked to determine the number of English classes that should be allocated for students per week at grade 1. The Table shows that the greatest segment of respondents(28.7% (n= 507)) suggested three classes per week, while 25% (n= 442) of respondents suggested two classes, 22% (n= 389) suggested four classes, 14.7% (n= 260) suggested five classes, and just 8.4% (n= 149) suggested one class. Only 1.1% (n= 19) suggested other numbers. As per Table Seven, the questionnaire asked about teachers’ perceptions of the introduction of English in grade 1 of the Saudi education system(see Appendix A). The questions in the Table used the Likert-scale (5 scales) format: 1= strongly agree, 2= agree, 3= neutral, 4= disagree, and 5= strongly disagree.

According to the Table, most of the respondents 56.9% (n= 1004) strongly agreed that English is an essential subject for students in grade 1, which shows the perceived importance of teaching English at an early age. As per item (2) of the Table, 20.3% (n= 358) strongly disagreed with the proposition that teaching the English language at grade 1 would negatively affect students’ acquisition of the Arabic language. As per item (3),54.7% (n= 966) of respondents strongly agreed that both male and female students should learn English as a foreign language at grade 1.
Table 8. Potential challenges for English teachers in grade 1

<table>
<thead>
<tr>
<th>Challenge</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High number of students in the class</td>
<td>1354</td>
<td>76.7</td>
</tr>
<tr>
<td>2. Use of textbooks containing too much information</td>
<td>911</td>
<td>51.6</td>
</tr>
<tr>
<td>3. A lack of up-to-date technology</td>
<td>871</td>
<td>49.3</td>
</tr>
<tr>
<td>4. Inadequate specialized training courses for teachers of English at grade 1</td>
<td>779</td>
<td>44.1</td>
</tr>
<tr>
<td>5. Students in grade 1 will not enjoy English classes</td>
<td>357</td>
<td>20.2</td>
</tr>
<tr>
<td>6. The textbooks are old-fashioned</td>
<td>329</td>
<td>18.6</td>
</tr>
<tr>
<td>7. Inadequate support from educational supervisors</td>
<td>310</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Table eight displays the potential challenges that teachers believe grade 1 English teachers may face in teaching English. The Table shows that 79.7% (n=1354) of the respondents felt that the high number of students in the classroom may be a challenge when teaching English in grade 1. This item was ranked highest, followed by the textbook containing too much information, with 51.6% (n=911) of the respondents identifying this as a challenge. A lack of up-to-date technology which could help to simplify the work of the teacher and assist the student in acquiring the language easily was ranked third. Some teachers reported in the open-ended questions other challenges. For example, those teachers stated that:

There is a shortage in the number of English teachers. Some primary schools asked other teachers who are not majoring in English to help in teaching English for grades 4, 5 and 6. My concern is the lack of helpful materials such as flashcards, and posters, etc that I think are essential in teaching English to young learners.

Table Nine, which is the last section of the questionnaire included items that asked the teachers to select what they considered the three most important suggestions that would aid the success of teaching English at grade 1.

Table 9. Suggestions for securing success for English teaching at grade 1

<table>
<thead>
<tr>
<th>Suggestion</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provision of modern technology for English language teachers who teach in grade 1</td>
<td>1222</td>
<td>69.2</td>
</tr>
<tr>
<td>2. Enrolment of grade 1 English teacher on specialized courses</td>
<td>1048</td>
<td>59.4</td>
</tr>
<tr>
<td>3. Increase in the number of English classes in grade 1</td>
<td>881</td>
<td>49.8</td>
</tr>
<tr>
<td>4. Use more up-to-date textbooks at grade 1</td>
<td>849</td>
<td>48.1</td>
</tr>
<tr>
<td>5. Recruitment of distinguished university graduates to teach grade 1</td>
<td>430</td>
<td>24.4</td>
</tr>
<tr>
<td>6. Enrolment of English teacher supervisors on training courses so they can provide necessary support to grade 1 teachers</td>
<td>418</td>
<td>23.7</td>
</tr>
</tbody>
</table>
The highest-ranked suggestion was the provision of modern technology for English teachers in grade 1, with 69.2% (n= 1222) of the 1766 respondents identifying this suggestion as an important one. The second highest-ranked suggestion was enrolling English language teachers of grade 1 students in specialized courses, with 59.4% (n= 1048) of respondents identifying this as a valuable idea. This suggestion was asserted by some teachers in the open-ended questions, for instance, those teachers who stated that:

This is the first time in Saudi that English is introduced in grade 1; therefore, having specialized courses for those teachers is vital.

There will be a high demand to provide teachers of grade 1 with special courses on teaching English for this stage.

About 49.8% (n= 881) of the respondents suggested that the number of English classes at grade 1 should be increased to enable more successful implementation of English at this level.

Discussion

The first research question focused on teacher perceptions of the introduction of English language teaching in grade 1. The ensuing data showed that the teachers’ overwhelming opinion is that English language teaching/learning should be introduced at even earlier stages, such as during preschool. This corroborates with Al-Malihi’s (2015) study which found high levels of enthusiasm about teaching primary students the English language, with many practitioners considering it a necessity. The present study also found that teachers felt that EFL learning has no negative impact on Arabic language acquisition among young learners. Aldosari and Alsultan’s (2017) study found that this bears out in practice, with no negative impacts on reading and writing skills in Arabic emerging when English was taught from the beginning of formal schooling. Moreover, private school students, who have studied English from the beginning of their first year of school, have been found to achieve better results in Arabic subjects than public school students (Aljohani, 2016).

This study also flags up what potential challenges teachers themselves feel they may face when teaching English to very young learners. The results show that many English teachers are concerned that the high number of students in the classroom, the use of textbooks that contain too much information, and a lack of up-to-date technology, will inhibit English teaching and learning at grade 1. Elyas and Algigri (2014) have also found that the overuse of traditional teaching methods, limited use of teaching aids, and limited access to modern technologies are among the major obstacles to teaching English at the early stages of schooling.

This study also collected data on teacher perceptions of what measures might facilitate success in English teaching at grade 1. The teachers overwhelmingly held that the provision of modern technologies for English teachers in grade 1 would significantly improve learning and student outcomes. The perceived importance of ongoing, adequate training also emerged, with the teachers positing that enrolling grade 1 teachers in specialized courses would enable the new policy to be more successful. The teachers also supported the idea of increasing the number of English
language classes in grade 1. This finding aligns with that of Alsairi (2018), who argues that modern teaching materials should be supplied to English teachers to help students. Ashraf (2018) has also recommended training in modern and effective teaching strategies and a better selection of appropriate textbooks.

**Conclusion**

This study explored English teachers’ perceptions of the introduction of English language teaching at grade 1 in the Saudi Arabian educational system, and it has highlighted the positive perceptions of the policy among English teachers as well as the value these teachers place on English teaching at this level. It contributes to the wider literature on teacher perceptions of EFL learning and teaching and EFL policy in Saudi, by investigating teachers’ perceptions of the introduction of English language teaching at grade 1.

It has also highlighted that the high number of students in grade 1 classes, the use of textbooks that contain too much information, and a lack of up-to-date technologies may hinder effective English language teaching at this learning stage. Moving forwards, policymakers and curriculum designers would do well to note these concerns among teachers and to implement measures to mitigate their impacts. The study also highlighted the measures that may aid the success of English teaching at grade 1 which are held by the teachers to have the greatest potential, including the provision of modern technologies, increasing the number of English classes, recruiting experienced teachers, and training English teachers via specialized courses. Although this study aimed to provide insight into teachers’ perceptions of introducing English at grade 1 by adopting a large-scale questionnaire, it will be more useful to employ interviews to garner rich and in-depth perceptions the future studies.

**About the Author**

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**References**


**Appendix 1**

**Table 7. Teachers’ perceptions of the introduction of English at grade 1**

<table>
<thead>
<tr>
<th>(1) English is an essential subject for students at grade 1.</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>1004</td>
<td>56.9</td>
</tr>
<tr>
<td>Agree</td>
<td>456</td>
<td>25.8</td>
</tr>
<tr>
<td>Neutral</td>
<td>119</td>
<td>6.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>132</td>
<td>7.5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>55</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Teaching English at grade 1 may negatively affect male/female students’ acquisition of Arabic.</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>205</td>
<td>11.6</td>
</tr>
<tr>
<td>Agree</td>
<td>187</td>
<td>10.6</td>
</tr>
<tr>
<td>Neutral</td>
<td>279</td>
<td>15.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>773</td>
<td>41.7</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>358</td>
<td>20.3</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) It is preferable for male and female students to learn a foreign language at grade 1</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>966</td>
<td>54.7</td>
</tr>
<tr>
<td>Agree</td>
<td>519</td>
<td>29.4</td>
</tr>
<tr>
<td>Neutral</td>
<td>104</td>
<td>5.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>128</td>
<td>7.2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>49</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>1766</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(4) Adopting English in the grade 1 curriculum will improve proficiency in English among students at the latter stages of schooling</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>1164</td>
<td>65.9</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>Neutral</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Agree</td>
<td>384</td>
<td>110</td>
</tr>
<tr>
<td>Neutral</td>
<td>21.7</td>
<td>6.2</td>
</tr>
<tr>
<td>Disagree</td>
<td>21.7</td>
<td>6.2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>21.7</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>1766</td>
</tr>
</tbody>
</table>

(5) One of the main benefits of adopting English in the grade 1 curriculum will be that students' familiarity with the basics of English will be better at higher grades of the primary stage.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
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<td>424</td>
<td>90</td>
<td>74</td>
<td>28</td>
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</tr>
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<td>65.1</td>
<td>24</td>
<td>5.1</td>
<td>4.2</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
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<td>24</td>
<td>5.1</td>
<td>4.2</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>65.1</td>
<td>24</td>
<td>5.1</td>
<td>4.2</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>65.1</td>
<td>24</td>
<td>5.1</td>
<td>4.2</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>65.1</td>
<td>24</td>
<td>5.1</td>
<td>4.2</td>
<td>1.6</td>
<td>100</td>
</tr>
</tbody>
</table>

(6) Starting to teach English at grade 1 will improve the language proficiency level of high school graduates.

<table>
<thead>
<tr>
<th></th>
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<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>110</td>
<td>91</td>
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<td>1766</td>
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<tr>
<td>Agree</td>
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<td>6.2</td>
<td>5.2</td>
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</tr>
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<td>22.5</td>
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<td>1.8</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>64.4</td>
<td>22.5</td>
<td>6.2</td>
<td>5.2</td>
<td>1.8</td>
<td>100</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>64.4</td>
<td>22.5</td>
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<td>5.2</td>
<td>1.8</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>64.4</td>
<td>22.5</td>
<td>6.2</td>
<td>5.2</td>
<td>1.8</td>
<td>100</td>
</tr>
</tbody>
</table>

(7) Teaching English at grade 1 will contribute to the development of basic verbal communication skills for children at the end of the primary school stage.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
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</tr>
</thead>
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<td>501</td>
<td>119</td>
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<tr>
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<td>59.9</td>
<td>28.4</td>
<td>6.7</td>
<td>3.5</td>
<td>1.5</td>
<td>100</td>
</tr>
<tr>
<td>Neutral</td>
<td>59.9</td>
<td>28.4</td>
<td>6.7</td>
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<td>100</td>
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<tr>
<td>Disagree</td>
<td>59.9</td>
<td>28.4</td>
<td>6.7</td>
<td>3.5</td>
<td>1.5</td>
<td>100</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>59.9</td>
<td>28.4</td>
<td>6.7</td>
<td>3.5</td>
<td>1.5</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>59.9</td>
<td>28.4</td>
<td>6.7</td>
<td>3.5</td>
<td>1.5</td>
<td>100</td>
</tr>
</tbody>
</table>

(8) One of the main benefits of adopting English in the grade 1 curriculum will be that students will have positive impressions of English when they attend intermediate-level education.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
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<td>538</td>
<td>111</td>
<td>62</td>
<td>25</td>
<td>1766</td>
</tr>
<tr>
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<td>58.3</td>
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<td>3.5</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
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<td>30.5</td>
<td>6.3</td>
<td>3.5</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>58.3</td>
<td>30.5</td>
<td>6.3</td>
<td>3.5</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>58.3</td>
<td>30.5</td>
<td>6.3</td>
<td>3.5</td>
<td>1.4</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>58.3</td>
<td>30.5</td>
<td>6.3</td>
<td>3.5</td>
<td>1.4</td>
<td>100</td>
</tr>
</tbody>
</table>
Development and Validation of the Chinese Critical Thinking Disposition Scale among Foreign Language Students

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&
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Abstract
Although much research acknowledges the positive contributions of CT dispositions to learning a foreign language, less scale development work has focused on the dispositions towards critical thinking of foreign language students in the Chinese language, leading to the limited availability of reliable and valid Chinese critical thinking disposition measurements in foreign language education. The current research aims to develop and validate the Chinese Critical Thinking Disposition Scale using Exploratory Factor Analysis and Confirmatory Factor Analysis (CFA) in two foreign language student samples from China. It filled the gap of limited reliable and valid Chinese scales assessing critical thinking disposition. A total of 538 (103 for EFA and 435 for CFA) foreign language students in China from Zaozhuang University and Jiangxi Normal University participated in the study. Results of the CFA confirmed a five-factor CHCTDS with 17 items on a seven-point Likert scale as an acceptable model fit for the data ($\chi^2$/df= 3.492, NFI=.911, CFI=.934, TLI=.918, IFI=.935, and RMSEA=.076) with good reliability and convergent as well as discriminant validity. The Cronbach’s $\alpha$ was .934 for the overall scale, and that of the five subscales ranged from .776 to .851. Therefore, the CHCTDS developed in this paper may be recommended as a valid Chinese scale measuring foreign language learners’ critical thinking dispositions. Still, it needs further validation among larger populations and across gender.

Keywords: Chinese language, critical thinking disposition, disposition scale, factor analysis, measurement, foreign language students
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**Introduction**

With the advent of the information age and the growing influence of the Internet, to survive and thrive in the rapidly changing world, Critical Thinking (CT), composed of skills and dispositions (Cheng & Wan, 2017; Facione, 2000), is believed to be an essential requirement for foreign language study and has obtained paramount attention in foreign language education (Din, 2020). CT skills entail employing conscious and appropriate techniques to attain a specific objective (Halpern, 1998). CT disposition is a tendency, willingness, or inclination to use particular thinking skills (Norris, 1992; Valenzuela et al., 2011), a consistent internal driving force for making decisions about what to do and believe using CT skills (Facione, 2000). CT is of great importance for foreign language learners because CT skills can help them to monitor and evaluate their ways of foreign language learning more successfully (Frolova et al., 2021), and CT dispositions could contribute to the improvement of foreign language (Xu et al., 2023) by increasing their desire to learn a new language and apply them in practice (Presbitero, 2020). Following Krashen's Affective Filter Hypothesis (1982), learners holding a positive outlook on foreign language learning can achieve better results (Frolova et al., 2021). In that case, enhancement of foreign language learners’ CT dispositions can empower them to learn foreign languages, and what effect other CT dispositions have in learning a foreign language could be a core focus of analysis that needs well researching.

Unfortunately, very minimum studies have disclosed the possible influence of CT dispositions in studying a foreign language (Ku & Ho, 2010; Ünaldı & Yüce, 2021) because researchers working in this field face the challenge of a lack of scale development work in CT dispositions (Fan & See, 2022). There are a limited number of CT disposition measurements with acceptable reliability and validity (Quinn et al., 2020; Sosu, 2013). Therefore, this study strived to develop a scale of CT disposition in the Chinese language based on the previously available CT disposition measurements and validate the new instrument using exploratory and confirmatory strategies among Chinese foreign language learners. Developing a measurement of the CT dispositional scale in the Chinese language with high reliability and validity would fill the gap of lacking a CT disposition scale explicitly developed for foreign language learners in the Chinese language. It would also play a critical part in assessing the classes and programs on CT dispositions (Ku, 2009; Kuhn, 1999), thus contributing to the further exploration of how their CT dispositions are related to other individual factors in various domains of life (Quinn et al., 2020), other related constructs like CT skills (Ku & Ho, 2010), and parenting styles (Wang et al., 2020).

**Literature Review**

Currently, the Student-Educator Negotiated Critical Thinking Dispositions Scale (SENCTDS; Quinn et al., 2020), the Critical Thinking Disposition Scale (CTDS; Sosu, 2013), and the California Critical Thinking Disposition Inventory (CCTDI; Facione & Facione, 1992) are the three available measurements of CT dispositions. The CCTDI is a scale based on the Delphi Report’s definition of CT (Facione & Facione, 1992). It comprises 75 measures that assess open-mindedness, analyticity, maturity, systematics, inquisitiveness, self-confidence, and truth-
seeking, seven dispositions towards CT. Even though the original published reports showed that
the overall scale and its seven subscales were quite reliable (Facione & Facione, 1992), very few
researchers have been able to duplicate them (Walsh et al., 2007). Additionally, it has been
reported that there was a poor level of internal consistency across dimensions (Ip et al., 2000),
significant overlaps between constructs, high cross-factor loadings, and no obvious loadings that
were exclusive to a single construct (Walsh et al., 2007).

Considering the overlap of constructs in the CCTDI, Sosu (2013) developed a two-factor
instrument called the Critical Thinking Dispositions Scale (CTDS), composed of 11 items
measuring critical openness and reflective skepticism. Although research on CTDS is numbered,
its suggested that a model with only one factor may fit the data better (Yockey, 2016).

Resting that most scales of CT dispositions were developed grounded in expert definitions,
Quinn et al. (2020) created a CT disposition scale called the Student-Educator Negotiated Critical
Thinkg Dispositions Scale (SENCTDS). They have engaged students and teachers in the design
using collective intelligence methods to generate scale items, making the SENCTDS more suitable
in the educational context (Quinn et al., 2020). However, even though 35 items have been retrieved
from the exploratory phase of the study, the sample size used for further validity verification in
Confirmatory Factor Analysis (CFA) is only 150, lower than the minimum sample size of 200
(Comrey & Lee, 1992) recommended for CFA. CFA, an SEM category, is an extensive sample
approach (Kline, 2015). Small sample sizes are generally acknowledged to cause problems, such
as inaccurate parameter estimates and poor model fit statistics (Wang & Wang, 2012). Thus, the
small sample size used in CFA for testing the model of the SENCTDS calls into question the
reliability and validity of the SENCTDS.

Aside from the concerns about the validity and reliability of scales in CT dispositions, it is
also noteworthy that there is presently no measurement available in Chinese language for
measuring foreign language students’ CT disposition (Fan & See, 2022) as the CCTDI, CTDS, and
SENCTDS were developed for samples who were native speakers of English in the U.K. and U.S.
Furthermore, the previous scales focused on students majoring in nursing (e.g., CCTDI; Facione
& Facione, 1992) or education (e.g., CTDS; Sosu, 2013), minimum scales targeting at foreign
language learners. Additionally, Chinese scales of CT disposition, which have taken the cultural
differences into account and been validated in the Chinese context, are limited (Wen, 2012).
Although the CCTDI in Simplified Chinese exists (e.g., Yeh, 2002), it is only a Chinese version of
the original instrument, paying no attention to the cultural differences.

Additionally, starting from the existing available CT disposition measurements, there are
dimensions shared by most taxonomies, including open-mindedness, perseverance, reflectiveness,
inquisitiveness, and self-confidence. The open-mindedness construct is among the dispositions
that gained consensus across researchers (Ennis, 1996; Facione & Facione, 1992; Sosu, 2013) and
a component of the overall set of good thinking dispositions for students (Ku & Ho, 2010). It is a
personality trait that accounts for a significant incremental effect on CT (Clifford et al., 2004).
Perseverance refers to the tendency to persevere through complex language tasks and the
associated difficulties and frustration without giving up (Dwyer et al., 2017) in learning a foreign
language. Although the perseverance construct is not incorporated in the CTDS or CCTDI, it has
been highlighted in the conceptualizations of CT dispositions in Dwyer et al. (2017) and regarded
as an essential dimension in the SENTDS (Quinn et al., 2020). Reflectiveness refers to foreign
language learners’ reorganization of their knowledge limits (Brookfield, 1987) and willingness to
Development and Validation of the Chinese Critical Thinking

Disposition of inquisitiveness is a prerequisite for foreign language students actively participating in thinking in foreign language study as it is a fascination with or appreciation of thinking (Ku & Ho, 2010). Foreign language learners with inquisitiveness value learning without being rewarded for it (Facione & Facione, 1992). They are motivated by the fascination with new languages and foreign cultures, same as or different from their own. Self-confidence in this study represents faith in one’s thinking processes and ability to make decisions (Facione & Facione, 1992). Foreign language learners who possess a disposition of CT self-confidence are confident enough in their reasoning abilities and are more willing to become strong critical thinkers (Facione, 2011), thus leading to a more favorable outcome while learning a foreign language (Tunçel, 2015). Therefore, the urgent need to create a new CT disposition scale has been recognized (e.g., Quinn et al., 2020; Ku, 2009; Norris, 2003), and given the limited availability of Chinese dispositional scale in the Chinese context (Wen, 2012), the present article intends to develop a Chinese scale of CT disposition based on the five constructs mentioned above.

Method

To propose the Chinese Critical Thinking Disposition Scale (CHCTDS), two separate samples were collected, with Sample One being utilized to assess the factor structure of the initial version with Exploratory Factor Analysis (EFA), and Sample Two to validate the factor structure retrieved from EFA in a larger sample size with Confirmatory Factor Analysis (CFA). The questions in the CHCTDS were set up on Wenjuanxing, a commonly used smartphone-based online investigation tool in China. Then the link was disseminated to foreign language students at Zaozhuang University and Jiangxi Normal University by their teachers. Students filled in the questionnaires by accessing the provided link on their smartphones if they expressed their willingness to participate in our survey. Online consent was obtained by clearly outlining this study’s objectives and ensuring the confidentiality of participant data. Then the data were downloaded for analysis employing SPSS 23.0 and AMOS 25.0.

Participants

Participants in the two samples were Chinese foreign language students of different grades at Jiangxi Normal University, and Zaozhuang University recruited in June, 2022 using cluster sampling and random sampling. Participants in Sample One and Sample Two comprised 103 and 435 foreign language students, respectively. Since the data collection was conducted online and participants were required to complete all the items before submitting, no missing data was found.

Research Instruments

The instrument of the present research was composed of two parts: a sociodemographic information part collecting information on age, gender, and grade, and the other part for the initial version of the CHCTDS. An exploratory approach was used to construct the initial English items based on available previous scales items on inquisitiveness, open-mindedness, self-confidence, perseverance, and reflectiveness. It generated a pool of 20 English items for translation into Chinese following translation, comparison, back-translation, second-round comparison, linguistic adaptation, and pilot testing (Brislin, 1970), from which the draft version of the CHCTDS was
Development and Validation of the Chinese Critical Thinking Dispositions Scale (CHCTDS) was developed. It took approximately three to five minutes to complete the survey. The format of the CHCTDS’s original version was a seven-point Likert scale, the type of Likert scale with the highest accuracy (Johns, 2010), where one meant “Strongly Disagree” and seven represented “Strongly Agree.” The higher the score was, the better CT dispositions the respondent was shown.

**Statistical Analysis**

EFA using statistical software SPSS and CFA using AMOS were performed to develop and validate the CHCTDS in this study. There were two independent samples in the study. EFA employing principal component analysis with the varimax rotation method (Pallant, 2007) was conducted in Sample One to detect the number of factors and item loadings, which helped ascertain the underlying factor structure of the CHCTDS. The number of extracted factors was based on an eigenvalue >1.0 (Kaiser, 1960), and items were retained based on factor loading above .50 (Worthington & Whittaker, 2006) and commonality above .40 (Hair et al., 2010). Before EFA, the KMO value and the corresponding p-value of Bartlett’s Test were conducted to test the suitability for EFA. The KMO value is greater than .6 (Kaiser, 1974), and a significant result of Bartlett’s Test (p< .05) (Snedecor & Cochran, 1980) suggested that the data was excellent for an EFA.

Subsequently, an analysis of fit between the hypothesized measurement model and data was examined by performing a CFA employing the robust maximum likelihood estimator (ML) with AMOS 25.0 in Sample Two, aiming to validate the measurement model extracted from EFA in another sample (Brown, 2015). The parameters used to appraise the model were $\chi^2/df$ (> 5) and several other model fit indicators which included the NFI, CFI, TLI, IFI, and RMSEA, whose values greater than .90 were generally considered acceptable indicators for model fit, and an RMSEA value of .08 or lower indicated good fit (Kline, 2015). Regarding the local adjustment of the model, all standardized factor loadings should be statistically significant (p< .05) and larger than or equal to .50 (Hair et al., 2010). To evaluate the scale’s convergent validity, both the average variance extracted (AVE) and Composite Reliability (CR) were calculated (Wu, 2013). Generally, a threshold value of AVE> 0.5 and CR> 0.7 indicated good convergent validity. Concerning discriminant validity, the square root of each AVE value associated with each latent variable should be larger than the absolute value of the correlational coefficient between the variable and other latent variables, suggesting a good discriminant validity between latent variables (Fornell & Larcker, 1981).

In the last place, the reliability of the final version of the CHCTDS was assessed. To determine the internal consistency of the entire scale and its dimensions, Cronbach’s Alpha, item deleted Cronbach’s Alpha, and corrected item-total correlations (CITC) were used. Cronbach’s Alpha was deemed to have an acceptable cutoff value of 0.70 for measuring instruments used in research (Hair et al., 2010).

**Results**

**Demographic Information of the Participants**

The sample size and distribution of age, gender, and grade of the two samples were depicted in Table one. The results showed that Sample One for the EFA study consisted of 53 female (51.5%) and 50 males (48.5%), with an average age of 19.56 (±1.169) years. Twenty-one of them were from grade one (20.4%), 48 from grade two (46.6%), 27 from grade 3 (26.2%), and seven...
Development and Validation of the Chinese Critical Thinking  
Xu, Abdullah & An

from grade four (6.8%). The sample size for the CFA was 435 (Sample Two), which meets the recommendation of the sample size for CFA (Kline, 2015). Participants in Sample Two were on a mean age of 19.25 years old (SD=.900; Max=28; Min=18), and the gender distribution was 34% male and 66% females. Most of Sample two were from grade 1 (70.3%) and grade 2 (28.3%).

Table 1. Description of the characteristics of Sample One and Sample Two

<table>
<thead>
<tr>
<th>Gender</th>
<th>Sample 1 (N= 103)</th>
<th>Sample 2 (N= 435)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (%)</td>
<td>53 (51.5%)</td>
<td>287 (66%)</td>
</tr>
<tr>
<td>Male (%)</td>
<td>50 (48.5%)</td>
<td>148 (34%)</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>19.56 (1.169)</td>
<td>19.25 (0.900)</td>
</tr>
<tr>
<td>Max</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>Min</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 1 (%)</td>
<td>21 (20.4%)</td>
<td>306 (70.3%)</td>
</tr>
<tr>
<td>Grade 2 (%)</td>
<td>48 (46.6%)</td>
<td>123 (28.3%)</td>
</tr>
<tr>
<td>Grade 3 (%)</td>
<td>27 (26.2%)</td>
<td>3 (0.7%)</td>
</tr>
<tr>
<td>Grade 4 (%)</td>
<td>7 (6.8%)</td>
<td>3 (0.7%)</td>
</tr>
</tbody>
</table>

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was employed to explore the latent structure of the CHCTDS in Sample One. The Kaiser-Meyer-Olkin measure of sampling adequacy was .782 exceeding the recommended value of .60 (Kaiser, 1974), and the significance of Bartlett’s Test of Sphericity was met (p< 0.001), suggesting the suitability of conducting EFA in Sample one (Snedecor & Cochran, 1980).

EFA (Principal Component Analysis with varimax rotation) was then performed to detect the structure of the initial version of CHCTDS. Based on the EFA results, six factors generated eigenvalues larger than one (Kaiser, 1960), and accounted for 67.857% of the overall variance. The factor loading of Item 16 was -.397, which failed to report the absolute value of factor loading exceeding the criteria of .50 (Hair et al., 2010), and should be excluded from the scale. Additionally, although item eight reported salient loading (.941) on Factor six, only one item was loaded on Factor six. As a result, Factor 6 (and item 20) was not retained due to non-interpretability (Costello & Osborne, 2005). Consequently, EFA in Sample One resulted in the elimination of two items (item eight and item 16) and the retention of five factors consisting of 18 items.

Following that, EFA was re-run after the exclusion of item eight and item 16. The results of the KMO and Bartlett’s test were displayed in Table Two, and the results of EFA were shown in Table Three. Table two showed the scale was appropriate for EFA with a KMO value of .800, and the examination of Bartlett’s Test of Sphericity was reported to be statistically significant (p< 0.01) (see Table two). As Table three indicated, the first factor loadings of all the remaining 18 items exceeded .50 with the lowest communality of .592. The final extracted structure’s cumulative variance, which included 18 items, made a contribution to 68.319% of the scale’s overall variance, above the required threshold of 60% (Hair et al., 2010). After varimax rotation, Factor 1~5
Development and Validation of the Chinese Critical Thinking

Xu, Abdullah & An

accounted for 15.713% (eigenvalue= 5.456), 14.667% (eigenvalue= 2.214), 13.483% (eigenvalue= 1.828), 12.834% (eigenvalue= 1.466), and 11.623% (eigenvalue= 1.333) of the overall variance respectively (see Table three). Factor one included four items related to open-mindedness; Factor two was related to inquisitiveness represented by four items; Factor three was renamed as self-confidence and was composed of four items; Factor four was related to perseverance and included three items; Factor five consisted of three items related to the reflectiveness.

Confirmatory Factor Analysis

Preliminary Data Analyses

A Confirmatory Factor Analysis (CFA) was then employed in Sample Two using AMOS 25.0 to estimate the scale’s validity. Before CFA, some preliminary analyses were conducted. Examining the assumptions of multivariate normality and linearity, all items displayed acceptable levels of asymmetry and kurtosis, with skewness values ranging from -.607 to 3.78 (Sk< |3|) and from -.780 to .943 for kurtosis (Ku< |10|) (Kline, 2015). The data in this study were mainly self-reported by participants online. Harman’s one-factor method was used to detect if a single latent factor explained all of the variables, thus ensuring that any potential common method variance bias (CMV) was controlled for (Podsakoff et al., 2003). With all the variables entered into factor analysis, results showed that the interpretation rate of the first factor was 47.01% (<50%), indicating that CMV in this study was not serious (Podsakoff et al., 2003).

Table 2. KMO and Bartlett’s test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin measure of sampling adequacy</th>
<th>0.800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. Chi-Square</td>
<td>766.578</td>
</tr>
<tr>
<td>Bartlett’s test of sphericity</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>153</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3. The results of Exploratory Factor Analysis

Rotated component matrix 

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 3</td>
<td></td>
<td>.843</td>
<td></td>
<td></td>
<td></td>
<td>.751</td>
</tr>
<tr>
<td>Item 2</td>
<td></td>
<td>.825</td>
<td></td>
<td></td>
<td></td>
<td>.736</td>
</tr>
<tr>
<td>Item 1</td>
<td></td>
<td>.766</td>
<td></td>
<td></td>
<td></td>
<td>.637</td>
</tr>
<tr>
<td>Item 4</td>
<td></td>
<td>.704</td>
<td></td>
<td></td>
<td></td>
<td>.681</td>
</tr>
<tr>
<td>Item 12</td>
<td></td>
<td>.814</td>
<td></td>
<td></td>
<td></td>
<td>.725</td>
</tr>
<tr>
<td>Item 14</td>
<td></td>
<td>.745</td>
<td></td>
<td></td>
<td></td>
<td>.641</td>
</tr>
<tr>
<td>Item 13</td>
<td></td>
<td>.695</td>
<td></td>
<td></td>
<td></td>
<td>.755</td>
</tr>
<tr>
<td>Item 15</td>
<td></td>
<td>.663</td>
<td></td>
<td></td>
<td></td>
<td>.660</td>
</tr>
<tr>
<td>Item 18</td>
<td></td>
<td></td>
<td></td>
<td>.841</td>
<td></td>
<td>.759</td>
</tr>
<tr>
<td>Item 17</td>
<td></td>
<td></td>
<td></td>
<td>.759</td>
<td></td>
<td>.620</td>
</tr>
</tbody>
</table>

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Using CFA, two models were examined among undergraduate foreign language students in China (Sample two). The first model intended to validate the five-factor structure extracted from EFA. The Standardized Regression Weights of one item loaded on Factor self-confidence in Model One was at .464, lower than 0.50, showing weak factor loadings, which was discarded to improve the model fit (Hair et al., 2010). Then the retained 17 items were re-run with CFA in Sample Two, and the results were displayed in Fig. one. As Figure One showed, no negative error variance was found, the covariance matrix was a positive definite matrix, and all factor loadings between the latent variable and its measurement index were substantial (with a minimum of .665 and a maximum of .850) and statistically significant (p < .05). These results provided solid support for the 17 items selected to symbolize the constructs (Wu, 2013).

![Figure 1. The schematic representation of critical thinking dispositions and the corresponding items](image)

Additionally, the model fit results of the CFA for the CHCTDS were shown in Table four.
Given the size of the model and sample, the findings suggested that it was a model that adequately fitted the data: $\chi^2/df = 3.492$, IFI=.935, CFI=.934, NFI=.911, TLI=.918, RMSEA=.076, [90% CI: 0.067 ~ 0.084], and the overall model fit Chi-square value was insignificant, $\chi^2 (136) = 4266.459, p=1.000 > .05$ (Kline, 2015) (see Table four). Based on the results of CFA, a five-factor model with 17 items was retained for the CHCTDS.

Table 4. Model fit results of confirmatory factor analysis for the CHCTDS (Sample 2; n=435)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>NFI</th>
<th>IFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA [90% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut value</td>
<td>/</td>
<td>/</td>
<td>&lt; 4</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&gt; 0.90</td>
<td>&lt; 0.80</td>
</tr>
<tr>
<td>17-item Model</td>
<td>380.588*</td>
<td>109</td>
<td>3.492</td>
<td>0.911</td>
<td>0.935</td>
<td>0.934</td>
<td>0.918</td>
<td>0.076 [0.067 ~ 0.084]</td>
</tr>
</tbody>
</table>

Default Model: $\chi^2 (136) = 4266.459, p=1.000$

Moreover, the model was evaluated for the Average Variance Extracted (AVE), and Composite Reliability (CR) to assess its convergent validity. The results of the validity assessment were shown in Tables five and six. As Table five showed, AVE values of all five factors were higher than .50 (AVE_{open-mindedness} = .593, AVE_{perseverance} = .600, AVE_{reflectiveness} = .570, AVE_{inquisitiveness} = .546, AVE_{self-confidence} = .539). The value of CR ranged from .778 to .854, all larger than .70, demonstrating that the five latent factors in the CHCTDS were well explained by its observed variables. Furthermore, according to Table Six, discriminant validity between latent variables of the CHCTDS was confirmed since the absolute value of the correlational coefficient between each construct and the other construct was greater than the square roots of the AVE values of all the latent variables (Wu, 2013).

Table 5. Assessment of construct validity

<table>
<thead>
<tr>
<th>Factor</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-mindedness</td>
<td>0.593</td>
<td>0.854</td>
</tr>
<tr>
<td>Perseverance</td>
<td>0.600</td>
<td>0.818</td>
</tr>
<tr>
<td>Reflectiveness</td>
<td>0.570</td>
<td>0.797</td>
</tr>
<tr>
<td>Inquisitiveness</td>
<td>0.546</td>
<td>0.828</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>0.539</td>
<td>0.778</td>
</tr>
</tbody>
</table>

Table 6. Assessment of discriminant validity

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor1</th>
<th>Factor2</th>
<th>Factor3</th>
<th>Factor4</th>
<th>Factor5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor1</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor2</td>
<td>0.521**</td>
<td>0.775</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor3</td>
<td>0.724**</td>
<td>0.569**</td>
<td>0.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor4</td>
<td>0.616**</td>
<td>0.727**</td>
<td>0.683**</td>
<td>0.739</td>
<td></td>
</tr>
<tr>
<td>Factor5</td>
<td>0.469**</td>
<td>0.628**</td>
<td>0.602**</td>
<td>0.697**</td>
<td>0.734</td>
</tr>
</tbody>
</table>

**Note:** Square roots of AVE values were presented in bold. **Correlation is significant at the 0.01 level (2-tailed). Factor 1 = Open-mindedness, Factor 2 = Perseverance, Factor 3 = Reflectiveness, Factor 4 = Inquisitiveness, Factor 5 = Self-confidence.

**Reliability**

Then the reliability of the CHCTDS was examined, and the results were demonstrated in Table seven. As shown in Table Seven, the overall reliability of the 17-item CHCTDS was rated as very good ($\alpha = .934$). The results of Cronbach’s Alpha test for all sub-scales were acceptable.
Development and Validation of the Chinese Critical Thinking

Xu, Abdullah & An

...development and validation of the Chinese Critical Thinking X... (ranging from .776 to .851). The corrected item-total correlations (CITC) of all 17 items were larger than .50, and the Cronbach's Alpha of the corresponding item was not significantly improved if any item was deleted, indicating that the final version of the CHCTDS consisting of 17 items had an excellent internal consistency (Hair et al., 2010).

Discussion

The purpose of the present article was to propose a Chinese scale of critical thinking disposition tailored for foreign language learners, the CHCTDS, and validate it among foreign language students using EFA and CFA on two separate samples. Results from these two analyses indicated that a five-dimensional structure of the CHCTDS presented a good fit with very good overall reliability for the scale (α=.934) and five sub-scales (α=.776~.851) and validity. The CHCTDS is composed of 17 Chinese positively scored items measuring foreign language learners’ five dispositions: open-mindedness, inquisitiveness, reflectiveness, perseverance, and self-confidence.

Table 7. Reliability and item-total statistics (n=435)

<table>
<thead>
<tr>
<th>Item</th>
<th>CITC</th>
<th>Cronbach’s Alpha if item deleted</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-mindedness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item1</td>
<td>0.598</td>
<td>0.931</td>
<td></td>
</tr>
<tr>
<td>Item4</td>
<td>0.611</td>
<td>0.931</td>
<td></td>
</tr>
<tr>
<td>Item6</td>
<td>0.632</td>
<td>0.930</td>
<td></td>
</tr>
<tr>
<td>Item11</td>
<td>0.649</td>
<td>0.930</td>
<td></td>
</tr>
<tr>
<td>Perseverance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item2</td>
<td>0.639</td>
<td>0.930</td>
<td></td>
</tr>
<tr>
<td>Item7</td>
<td>0.638</td>
<td>0.930</td>
<td></td>
</tr>
<tr>
<td>Item15</td>
<td>0.687</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Reflectiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item9</td>
<td>0.572</td>
<td>0.932</td>
<td>0.934</td>
</tr>
<tr>
<td>Item12</td>
<td>0.754</td>
<td>0.928</td>
<td></td>
</tr>
<tr>
<td>Item17</td>
<td>0.685</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Inquisitiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item3</td>
<td>0.688</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Item8</td>
<td>0.697</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Item13</td>
<td>0.670</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Item16</td>
<td>0.687</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Self-confidence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item5</td>
<td>0.673</td>
<td>0.929</td>
<td></td>
</tr>
<tr>
<td>Item10</td>
<td>0.575</td>
<td>0.932</td>
<td></td>
</tr>
<tr>
<td>Item18</td>
<td>0.597</td>
<td>0.931</td>
<td></td>
</tr>
</tbody>
</table>
Table 7. Reliability and item-total statistics (n=435)

<table>
<thead>
<tr>
<th>Item</th>
<th>CITC</th>
<th>Cronbach’s Alpha if item deleted</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
</table>

In this paper, Factor One (open-mindedness) comprises four items representing foreign language learners' tendency to be flexible in cognition, not rigid in thinking (Dwyer et al., 2017), and language learning. They should stay open-minded to various points of view existing in different cultures while learning a foreign language, especially when those points of view contradict their own culture. Even though the description of open-mindedness in the current study is similar to the open-minded construct in the Delphi Report (APA, 1990), it is different from the one in Quinn et al. (2020), a multi-faceted construct not only encompassing open-mindedness but also truth-seeking and perseverance (Quinn et al., 2020). However, there is a conceptual overlap between the conceptualization of open-mindedness and the distinct construct of perseverance in the SENCTDS developed by Quinn et al. (2020).

Perseverance in the present paper emerges as a distinct construct consisting of three items in the CHCTDS. The inclusion of a perseverance disposition seems reasonable due to the research finding that perseverance was found to entail a drive to learn and work through challenging issues without relying on cognitive heuristics and shortcuts (Quinn et al., 2020), which will facilitate foreign language students to avoid cognitive biases (Willard & Norenzayan, 2013) in foreign language learning and less likely to for unusual beliefs such as belief in the paranormal (Quinn et al., 2020) when coming across exotic culture.

Reflectiveness (Factor three) is considered novel to the CCTDI but a common construct shared in the CTDS and SENCTDS. The element of reflectiveness is implicit in defining CT dispositions (e.g., McPeck, 1981; Sosu, 2013), and is regarded as a requirement for foreign language learners who have a disposition towards CT (Sosu, 2013). In the current paper, reflectiveness comprises three items representing a willingness to reflect on one’s actions, attitudes, beliefs, and learning style.

Inquisitiveness in the current paper contains four items referring to a disposition to be curious and a desire to discover the answer to a problem and seek the truth with fair-minded and objective judgments. It shares a conceptual overlap with truth-seeking, an essential personality trait of the ideal critical thinker in the Delphi Report (APA, 1990) due to the truth-seeking attitude. Even though inquisitiveness is named as intrinsic goal motivation in the SENCTDS as it is argued that curious people are motivated by intrinsic goals such as knowledge and understanding (Quinn et al., 2020), Factor 4 in this paper is still called inquisitiveness as what it was in the CCTDI for the reason that intrinsic motivation is a much broader concept which can entail more intrinsic goals apart from gaining knowledge and understanding.

There are three Chinese scale items in the construct CT self-confidence (Factor five). Although it was argued CT self-confidence constituted desirable attributes but may not be characterized as an inclination to CT (Sosu, 2013), foreign language students who lack self-confidence would experience negative emotions such as fear of failure or humiliation and foreign language anxiety (Tunçel, 2015), which will affect their language learning motivation (Bong, 2008) and refrain them from speaking in a foreign language and participating in classroom activities.

**Conclusion**
This study intends to report the reliability and validity of the freshly proposed critical thinking dispositional scale named the Chinese Critical Thinking Disposition Scale. It was conducted in the context of undergraduate foreign language learners in China employing exploratory and confirmatory strategies. The results revealed that the Chinese Critical Thinking Disposition Scale, a five-factor structure with 17 scale items, is valid and reliable in the Chinese language for assessing foreign language learners’ dispositions towards critical thinking. Furthermore, the conceptualizations of five critical thinking dispositions (open-mindedness, reflectiveness, self-confidence, perseverance, and inquisitiveness) are provided in this paper, which will provide a valuable and suitable tool for advancing CT research in the area of teaching foreign languages.

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Xu, Abdullah & An

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Development and Validation of the Chinese Critical Thinking  

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EFL Students' Perception of Using AI Paraphrasing Tools in English Language Research Projects

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Abstract
Researchers and educators have different opinions on the use of AI-driven automated paraphrasing tools (APTs). Such tools can improve students’ writing performance but may result in accusations of plagiarism if students do not use them appropriately. This study aimed to examine EFL students’ perceptions of using APTs in their academic writing process. It fills a gap in the literature by highlighting the roles, appropriateness, and effectiveness of APTs use and identifying their advantages and disadvantages. During a research project course, the participants used APTs while writing their research papers. A questionnaire and semi-structured interviews were used to identify students’ perceptions of using APTs and to determine the advantages, disadvantages, and drawbacks of using them. The findings showed that EFL students' perceptions toward using APTs are favorable; they view them as useful tools that have a significant impact on their academic writing process. The study recommended that APTs are helpful to EFL students but that students must not overly rely on them. Students must learn how to paraphrase to check the appropriateness of the texts produced by APTs.

Keywords: Academic writing, AI paraphrasing tools, automated paraphrasing tools, English as a Foreign Language, research projects

Introduction

Writing is one of the most challenging skills needed students pursuing university degree. Skillful writing comprises numerous abilities, such as analyzing, synthesizing, inferring, producing clear and organized paragraphs and ideas, developing meaningful material, mastering sentence building, grammatical competence, and lexical knowledge. Furthermore, writing necessitates features of language fluency as well as the coordination of numerous high-level metacognitive skills to generate the precise details and information necessary to develop new ideas. Writing research papers demands even higher-level skills as students need to search for relevant and reliable resources, read, summarize, and paraphrase ideas to produce a well-organized research paper. Academic writing thus necessitates describing, summarizing, and paraphrasing a written work, with a particular concern for style and accuracy. Students must also appropriately cite the references used (Rahmayani, 2018; Tran & Nguyen, 2022).

To succeed in academic courses such as research methods or graduation projects, students need to write original research. Paraphrasing is commonly employed in research writing and is considered one of the more advanced academic writing skills (McInnis, 2009). Appropriate paraphrasing academic writing demonstrate how students’ mastery of certain research skills, for example, whether they understand what they are reading and can rewrite it in their own words. students who are unable to do so may experience difficulty in writing their research papers or projects. Poor paraphrasing is typically the cause of unintentional plagiarism and weak writing outcomes (Ramadhani, 2019).

With advances in artificial intelligence (AI), students can now use automated paraphrasing tools (APTs) to aid them in academic writing. These tools are software or online applications that use algorithms to or alter the structure of the original text while retaining the same meaning. Although using APTs can save students time and energy, overreliance on these tools can result in poor quality written material and failure to fulfill the learning outcomes of some writing courses. It is important to inform students of a fine line between using these tools to paraphrase and using them to plagiarize (Rogerson & McCarthy, 2017).

Despite their potential drawbacks, APTs are promising applications that may help EFL students overcome their writing difficulties. If such tools are used appropriately, they can help students avoid unintentional plagiarism and enhance their writing. This study aimed to investigate EFL students’ perceptions of using APTs to improve their academic writing and to identify their advantages and disadvantages. Accordingly, during the 2022–2023 academic year, EFL students enrolled in research method classes or completing a research project were trained on the use of some APTs, including QillBot, Grammarly, Ginger, and SpinnerCeif. To avoid overreliance on APTs, students were trained the writing process approach, which includes outlining, drafting, proofreading, and editing. During each stage, they had to submit their writing. The research objectives were twofold: (a) to employ a mixed methods approach comprising a questionnaire and semi structured interviews to elucidate EFL students’ perceptions of the roles, appropriateness, and effectiveness of using APTs, and (b) to use the information collected to identify the advantages and the disadvantages of using APIs. This study sought to answer the following questions:

- What are EFL students’ perceptions of using APTs to improve their research writing?
- What advantages do APTs offer EFL students?
- What disadvantages of using APTs do EFL students perceive?
Literature Review

Paraphrasing is an essential writing skill for language students. This skill entails deriving the primary ideas from a source text and restating them without copying the original either syntactically or lexically (Inayah & Sulistyaningrum, 2021; Rahmayani, 2018). AI text generators can help students with many aspects of writing, including paraphrasing, correcting spelling and grammar, and improving sentence structure and writing clarity. One form of AI text generator that has gained increasing popularity is automated paraphrasing tools (APTs), which can assist students in delivering refined work by generating coherent thoughts and ideas. These tools can potentially address multiple issues in academic writing, such as maintaining the same information as the original text, identifying parts of speech, handling punctuation, and effectively paraphrasing the content.

Advantages of APTs

Learning to paraphrase can be challenging for different types of language students (Khrismawan & Widiati, 2013). APTs may enhance students’ writing quality by employing a variety of strategies, such as using synonyms, modifying word forms, using active/passive sentences, and changing word order (Fitria, 2021; Inayah & Sulistyaningrum, 2021). Several studies have identified strategies employed by AI paraphrasing tools. The effectiveness of using paraphrasing tools is highlighted in some previous studies. Chen et al. (2015) concluded that APTs effectively improved the writing ability of EFL learners who struggled with meeting writing standards. Yan (2023) and Adams and Chuah (2022) found that automated paraphrasing tools helped students organize their text, simplify information, and broaden their conceptual understanding. Roe and Perkins (2022) and Prentice and Kinden (2019) highlighted that APTs could generate sentences like the original text but with different syntax. Tran and Nguyen (2022) noted that APTs significantly enhanced various aspects of academic writing skills among EFL students. Those students who used paraphrasing interventions showed improvements in various aspects of writing, including task execution, citation, sentence structure, spelling, and vocabulary. Given their numerous advantages, APTs are popular among students and can enhance their writing skills.

Disadvantages of APTs

Despite the perceived benefits of APTs in improving writing quality and providing language support for EFL students, these tools also have potential drawbacks. Bailey and Withers (2018) and Prentice and Kinden (2018) observed that English language learners commonly rely too heavily on APTs, which often results in content similarity and unidiomatic language. Rogerson and McCarthy (2017) emphasized the importance of referencing the original authors and cautioned against students misusing APTs without proper acknowledgement. According to Ansorge et al. (2021), paraphrased texts generated by APTs exhibit deficiencies in language quality and contain in accurate terminology. Furthermore, APTs can threaten academic integrity when students utilize them to rephrase someone else's work and claim it as their own (Roe & Perkins, 2022).

Students’ Perceptions of APTs

Because APTs are a new technology, previous studies have sought to understand students’ perceptions of using them. Rahmayani (2018) and Inayah and Sulistyaningrum (2021) emphasized the importance of APTs in helping students create more coherent work. Miranda (2021) reported
that students were impressed with the ability of APTs to introduce new vocabulary and enhance their writing proficiency. Fithriani (2022) and Syahnaz and Fithriani (2023) found that students responded positively to using QuillBot because it improved their writing and understanding of the content. Similarly, Nurmayanti and Suryadi (2023) concluded that QuillBot helped students learn English and increased their writing engagement. QuillBot provided students with corrective feedback, thereby reducing their time and effort. Students’ confidence in writing increased due to the improved quality of their writing, resulting, in part, from the use of APTs.

To sum up, the use of APTs helps students overcome difficulties in paraphrasing. Previous studies have demonstrated that EFL students favored APTs’ use in their academic writing. Additionally, these studies highlighted that APTs generate paraphrased texts by applying similar strategies to those employed by humans, including using synonyms and restructuring sentences. Nonetheless, although these tools provide solutions to some linguistic problems, students should not rely too heavily on them. By striking a balance between utilizing APTs and developing their own paraphrasing abilities, students can leverage the benefits of technology while honing their writing skills effectively.

Although previous research has examined EFL student perceptions of APTs, no study has yet examined the perspectives of Arab learners studying English as a foreign language regarding the use of these tools. Therefore, this study represents a further attempt to investigate the perceptions of EFL students concerning the use of APTs to enhance their academic writing skills.

Methods

This study used a mixed-methods approach comprising both qualitative and quantitative data to obtain insights into students’ opinions on the use of APTs and to verify the results through data analysis.

Participants

Twenty-five female students participated in the study. They were enrolled in English language research methods and research project courses in the Zulfi College of Education at Majmaah University during the 2022–2023 academic year. All students were from the English language department; their average age was 21. Their goal was to write research in English that was well organized and free of plagiarism. These students completed two writing courses as a prerequisite for enrolling in their research classes. The participants were trained to use APTs to help them write research proposals and full research papers.

Research Instruments

Perception Questionnaire

A 5-point Likert-type questionnaire was used to check Saudi students’ perceptions of using APTs to improve their research proposal writing. The questionnaire consisted of 30 closed-ended questions and comprised three dimensions: the roles of APTs, the appropriateness of APTs, and the effectiveness of APTs in paraphrasing. The questionnaire items were adopted from Inayah and Sulistyaningrum (2021) and Kurniati and Fithriani (2022).
Interviews
The researchers conducted semistructured digital interviews to obtain deeper insight into students’ perceptions of using APTs and to identify the advantages and disadvantages of their use. The interviews consisted of five questions: two closed-ended and three open-ended.

Validity and Reliability
Internal Consistency Validity
SPSS was used to compute Pearson correlations between the scores of each item of the three dimensions of the questionnaire and the total score of each related dimension. The results are presented in Appendix A. Correlation coefficients were also computed and are displayed in Appendix B.

As indicated in Appendix A, all Pearson correlation coefficients were statistically significant at the 0.01 level, except for items 5, 8, and 20, which were significant at the 0.05 level.

The correlation coefficients between the dimensions and the overall scores of the questionnaire, as presented in Appendix B, demonstrated statistical significance. The results of Appendices A and B confirm the internal consistency of the questionnaire. Thus, the questionnaire is valid.

Questionnaire Reliability
Cronbach’s alpha was computed with SPSS to ascertain the reliability of the questionnaire. The results are presented in Appendix C.

The questionnaire demonstrated a strong level of reliability, as indicated by the high Cronbach alpha values and consistent results across all dimensions.

As an additional reliability check, the split-half reliability method was used between the first 15 and second 15 questions. The Guttman split-half coefficient was 0.816, indicating that the questionnaire is reliable. Accordingly, the reliability and validity of the questionnaire were established.

Results
Questionnaire Descriptive Statistics
The descriptive statistics for the questionnaire are presented in Appendix D. The descriptive statistics in Appendix D indicate the number of participants (N = 25), the number of dimensions, and the total number of questionnaire items. The minimum, maximum, mean, and SD are also presented.

Questionnaire Results
The frequency of students’ responses, means, standard deviations, rank, and weighted mean of the first dimension are provided in Appendix E. These results indicate students’ perceptions of the roles of APTs in paraphrasing. The weighted mean of the first dimension (M = 3.92) indicated students’ overall agreement on the roles of APTs. Students strongly agreed that APTs help them use grammar correctly and find synonyms for paraphrasing sentences (M = 4.28). Some items had the same mean, such as items 2 and 5 (M = 3.96) and 4 and 9 (M = 3.92). The lowest weighted mean was for item 10 (M = 3.42).
Appendix F presents the frequency of students’ responses, means, standard deviations, rank, and weighted mean of the second dimension. These results indicate students’ perceptions of the appropriateness of APTs. The weighted mean result ($M = 3.90$) indicated that students agreed on the appropriateness of using paraphrasing tools. The mean scores in the second dimension ranged from 3.56 to 4.12. According to the rank results, students agreed that APTs achieved linguistic diversity ($M = 4.12$). They responded neutrally to item 12, which states that the sentence quantity of the APT-produced text equaled the source text ($M = 3.56$). Students were also neutral concerning the similarity in structure between the original and APT-generated text (item 14, $M = 3.56$). They agreed on items 13, 15, 16, and 17, which had the same mean ($M = 4.04$).

Appendix G contains the frequency of students’ responses, means, standard deviations, rank, and weighted mean of the third dimension. The results showed that students strongly agreed on the effectiveness of APTs ($M = 4.27$). The largest means were for items 1 and 30 ($M = 4.36$). Items 25, 27, 28, and 29 shared the same mean ($M = 4.32$), representing strong agreement on the content of these items. The results of items 21, 22, and 26 revealed students’ agreement that APTs are easily accessible tools that help them in their academic writing in organized texts.

**Interview Results**

Twenty-five students responded to the semi structured interview questions. In response to the first question, “Have you ever used a paraphrasing tool?” all the students said yes. The second interview question asked them about the tools they use. The results are presented in Appendix H.

As indicated in Appendix H, QillBot was the tool most frequently mentioned by the students, with a frequency of 17 (55% of participants). This result suggests that most students rely on QillBot for their writing needs. SpinnerCeif, however, was not mentioned by any of the students, indicating that it was not commonly used by this group of participants. Ginger was mentioned by five students, accounting for 16% of the responses. While not as popular as QillBot, Ginger was still a reasonably common tool among the students surveyed. Grammarly, with a frequency of 9 (29%), fell in between QillBot and Ginger in terms of popularity, appearing to be a moderately popular tool among the students, although not as widely used as QillBot.

The third interview question asked students about their reasons for using APTs. Appendix I contains the categorization, frequencies, and percentages of their responses. Eight students (32%) reported that they used APTs to improve the outcomes of their writing. Overcoming grammar and sentence structure difficulties was also noted in eight responses (32%). Five students (20%) indicated that they used APTs to find suitable synonyms. Four students (16%) agreed that using APTs saved them time and effort.

The fourth interview question asked: “What do you think are the advantages of using a paraphrasing tool?” Appendix J presents students’ responses. Students provided 28 responses to this question. Some participants answered the question more than once. Eight students (29% of responses) reported that using APTs offered the advantage of facilitating the paraphrasing process. Seven students (25% of responses) saw APTs as providing a variety of useful features. Another advantage of APTs, noted by three students (11% of responses), was that they enhance...
EFL Students' Perception of Using AI Paraphrasing Tools

Alammar & Amin

The fifth interview question asked students about the disadvantages of using APTs. Appendix K categorizes students’ answers. As indicated in Appendix K, more than half the students (13, 52%) reported that using APTs threatened their creativity in writing. Four students (16%) viewed inaccuracy in word choice as a disadvantage. Contextual misunderstanding was another disadvantage of APTs, perceived by three students (12%). Five students (20%) commented that they saw no disadvantages in using APTs.

Discussion

The main aim of this study was to explore EFL students’ perceptions of using APTs in writing research papers and to identify the advantages and disadvantages of these tools. To answer the first research question, their perceptions were analyzed by three dimensions of the questionnaire: the role of APTs in paraphrasing, the appropriateness of using APTs, and the effectiveness of using paraphrasing tools. The interview responses provided a profound analysis of how EFL students perceive the advantages and disadvantages of APT use, thereby answering the second and third research questions.

The questionnaire results indicated students’ overall agreement on and positive perception of the use of APTs. Appendix E presents students’ perceptions of the roles of APTs in paraphrasing. Students viewed these tools as helping them use grammar correctly, vary their sentence style, change their sentence structure, and use proper connectors and discourse markers. These findings are consistent with those of Chui (2022), Fitria (2021), Nurmayanti (2023), and Suryadi (2023), who investigated students’ use of APTs in writing. The study by Kurniati and Fithriani (2022) pinpointed that paraphrasing helps EFL students overcome difficulties in cohesion and coherence. Using paraphrasing tools with the grammar checking function can help learners improve their writing, as reported by Inayah and Sulistyaningrum (2021). The findings from those studies and the present study suggest that paraphrasing tools can improve the quality of students’ writing.

Appendix F presents results related to students’ perceived appropriateness of using paraphrasing tools. Appropriateness revolved around three dimensions of the paraphrased texts: semantic, syntactic, and discourse. Students agreed that paraphrasing tools were appropriate for producing suitable expressions and grammatically correct sentences and generating new sentences using synonyms and different syntax. On the other hand, students were neutral about whether paraphrasing tools were appropriate for producing text with similar structures to the source text. This finding suggests that students were less confident about APTs’ ability to generate text with the same sentence length as the source text. A similar result was demonstrated by Kurniati and Fithriani (2022), who concluded that using paraphrasing tools did not change the source text, instead producing text that was detectable using plagiarism tools. On the contrary, Roe and Perkins (2022) highlighted that APTs generated a similar sentence quantity as the original text using different syntax. Thus, previous studies examined the appropriateness of paraphrasing tools, but findings of these studies demonstrated varied results. These contradictory findings may be due to the type of APT used in the studies and the context of the texts being paraphrased.

The results from Appendix G revealed that students strongly agreed on the effectiveness of APTs. These tools helped them improve their grammar skills, gain new vocabulary, enhance
EFL Students’ Perception of Using AI Paraphrasing Tools

Alammar & Amin

their writing organization, boost their confidence in writing, and increase their understanding of the source text. This result is in line with results reported by Miranda (2021), who stated that advanced paraphrasing tools positively impact students’ paraphrasing skills. Syahnaz and Fithriani (2023) highlighted that using APTs may enable students to move past challenges they experience in writing EFL academic papers, consequently improving the quality of their writing. Inayah and Sulistyaningrum (2021) demonstrated that APTs could solve challenges in academic writing.

Appendix H presents the answers to the second interview question and summarizes the frequency with which students used diverse APTs. Most students preferred to use QillBot, followed by Grammarly and then Ginger. This perception of these tools’ quality may be due to their precision. They provide numerous phrasing features, such as “standard, fluency, formal, simple, creative, expand, and shorter.” The results concerning QillBot are in line with previous research (e.g., Chui, 2022; Fitria, 2021; Kurniati & Fithriani, 2022; Nurmayanti & Suryadi, 2023; Syahnaz & Fithriani, 2023), which also found that students preferred to use QillBot in writing classes and found it helpful when writing in a foreign language. It is worth noting that these results are specific to the surveyed group and may not be representative of the broader population.

Students’ reasons for using paraphrasing tools, provided in response to the third interview question, are given in Appendix I. Students reported that using APTs improved their writing outcomes. For example, one student said, “I use QillBot to achieve better writing in a certain text.” Another stated, “I use Grammarly and QillBot to improve my academic skills.” These perceptions are supported by the results of previous studies, which have concluded that using APTs can improve students’ writing (e.g., Inayah & Sulistyaningrum, 2021; Nurmayanti & Suryadi, 2023).

Students’ perceptions of the advantages of using paraphrasing tools are presented in Appendix J. The first category concerns how APTs facilitate the paraphrasing process. Eight students (29% of responses) reported that APTs made the research-writing process easier. One student commented that “using paraphrasing tools makes writing research, especially the theoretical part and literature review, easier for me.” Other positive impacts of using APTs noted by students included overcoming difficulties with grammar and sentence structure and finding suitable synonyms. As one of the students stated, “By using paraphrasing tools, I can write academic phrases and structures correctly.” Another student mentioned that “it is wonderful and has very important advantages that help a lot in knowing where the mistakes are, correcting them, and learning from them.” Students’ use of APTs to overcome their problems with grammar and vocabulary has also been reported by Miranda (2021) and Sulistyaningrum (2021).

Students indicated avoiding plagiarism as another advantage of using APTs. Acquiring the skill of paraphrasing accurately and appropriately acknowledging and citing sources assist students in preventing plagiarism. This result is in line with Ramadhani (2019) and Tran and Nguyen (2022), who investigated the effect of paraphrasing on preventing plagiarism in academic writing among EFL students. Not all studies have agreed with these findings, however. Rogerson and McCarthy (2017) explained that students using APTs to paraphrase works by others and submit them as their own would constitute a form of plagiarism. Other researchers, such as Roe and Perkins (2022), have asserted that using APTs could threaten academic integrity; instead, they suggest training students in paraphrasing.

Appendix K presents the students’ responses to the fifth interview question. Students identified three main disadvantages of using APTs: inaccuracy in word choice, misunderstanding the context, and threatening creativity (i.e., dependency on the tools). For instance, one student commented on
the accuracy of word choice, saying, "Sometimes, I find paraphrasing tools not accurate. I remember paraphrasing the phrase ‘students at college’ into ‘pupils at college.’" A similar conclusion was drawn by Kinden and Prentice (2018), who found that APTs were not accurate in paraphrasing medical texts. Therefore, it is important to proofread and edit the text produced by APTs. Contextual misunderstanding was another disadvantage noted by students. One student said, "The disadvantages of using a paraphrasing tool are producing inaccurate or meaningless sentences and losing the original idea's tone or structure, I think because these tools do not interpret the context of the content being paraphrased." This result is consistent with the findings of Ansorge et al. (2021), who identified that texts paraphrased by APTs are characterized by poor language and inaccurate terminology. Approximately half the students stated that using APTs may pose a threat to their creativity in writing. One of the students commented, "If I get used to using these tools, I might rely too much on technology instead of developing my writing skills." Another student, "The dependence on these tools will increase rather than being self-dependent, so the students won’t improve their writing continually." Therefore, it is important to train students, particularly EFL students, in paraphrasing strategies and increase their awareness of the potential drawbacks of overreliance on these tools, a conclusion also drawn by Rogerson and McCarthy (2017) and Rahmayani (2018).

Conclusions
Mastering paraphrasing skills is essential in academic writing; however, some students, particularly EFL students, encounter challenges in paraphrasing. In recent years, the emergence of AI-powered APTs has provided potential solutions to these challenges. This study investigated EFL students’ perceptions of using such tools in their academic writing. Most students reported agreement on the significance, appropriateness, and effectiveness of paraphrasing tools. They viewed APTs as helping them write their research projects and indirectly helping them acquire new synonyms and sentence structure. They also reported a few drawbacks of APTs, such as in accurate word choice. APTs are not fool proof, nor are they a substitute for students’ development of critical thinking skills through mastering the skill of paraphrasing. Teachers must emphasize to students the importance of learning paraphrasing strategies on their own as well as implementing these tools. Furthermore, students must differentiate between using these tools to practice paraphrasing and using them to plagiarize.

Recommendations and Suggestions
Based on the findings from this study, it is important to emphasize to EFL students that they must read, edit, and check the accuracy of the output from APTs. Additionally, teachers and researchers must adopt evaluation criteria to evaluate the appropriateness of paraphrased sentences produced by APTs. In EFL classes, teachers can use APTs to develop writing activities where students can paraphrase certain texts and then identify strategies for paraphrasing, such as using synonyms and changing sentence structure.

Research can evaluate the effectiveness of APTs to ensure that they help learners in different contexts. Researchers can conduct studies to compare the output of APTs to that of human paraphrasing. Other studies may explore the impact of APTs on writing quality. Research may investigate using APTs to expand the lexical knowledge or syntactic competence of learners. Further research and guidance on the appropriate use of APTs may be necessary to help students utilize them effectively without compromising academic integrity or language proficiency.
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References


### Appendices

#### Appendix A

*Pearson Correlations Between the Score of Each Item and the Total Score of Each Dimension*

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<th>Item</th>
<th>Pearson correlation</th>
<th>Item</th>
<th>Pearson correlation</th>
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### The first dimension: Role of paraphrasing tools in paraphrasing

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<td>.677**</td>
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### The second dimension: Appropriateness of paraphrasing tools in paraphrasing

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</tr>
<tr>
<td>25</td>
<td>.668**</td>
</tr>
<tr>
<td>26</td>
<td>.902**</td>
</tr>
<tr>
<td>27</td>
<td>.674**</td>
</tr>
<tr>
<td>28</td>
<td>.620**</td>
</tr>
<tr>
<td>29</td>
<td>.628**</td>
</tr>
<tr>
<td>30</td>
<td>.552**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

### Appendix B

**Correlation Coefficients Between Each Dimension and the Total Questionnaire Score**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Correlation with the total questionnaire score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>(**), .79</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>(*), .62</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>(**), .83</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

### Appendix C

**Cronbach’s Alpha Values for Questionnaire Reliability**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>No. of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
</table>

---

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Appendix D
Questionnaire Descriptive Statistics

<table>
<thead>
<tr>
<th>Dimension</th>
<th>No. of participants</th>
<th>No. of items</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>25</td>
<td>10</td>
<td>28.00</td>
<td>49.00</td>
<td>39.24</td>
<td>5.58</td>
</tr>
<tr>
<td>2nd</td>
<td>25</td>
<td>10</td>
<td>27.00</td>
<td>47.00</td>
<td>39.04</td>
<td>4.61</td>
</tr>
<tr>
<td>3rd</td>
<td>25</td>
<td>10</td>
<td>34.00</td>
<td>50.00</td>
<td>42.72</td>
<td>4.80</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>30</td>
<td>97.00</td>
<td>140.00</td>
<td>121.00</td>
<td>11.54</td>
</tr>
</tbody>
</table>

Appendix E
Frequency of Students’ Responses, Means, Standard Deviations, Rank, and Weighted Mean of the First Dimension

<table>
<thead>
<tr>
<th>Result</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>4.28</td>
<td>0.79</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>3.96</td>
<td>0.73</td>
<td>7</td>
</tr>
<tr>
<td>Agree</td>
<td>4.08</td>
<td>0.86</td>
<td>4</td>
</tr>
<tr>
<td>Agree</td>
<td>3.92</td>
<td>1.04</td>
<td>8</td>
</tr>
<tr>
<td>Agree</td>
<td>3.96</td>
<td>0.84</td>
<td>6</td>
</tr>
<tr>
<td>Agree</td>
<td>3.44</td>
<td>0.96</td>
<td>9</td>
</tr>
<tr>
<td>Agree</td>
<td>4.16</td>
<td>0.75</td>
<td>3</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.28</td>
<td>0.79</td>
<td>2</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>11. The paraphrasing tools produce the same meaning as the source text</td>
<td>F</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>12. The sentence quantity of the produced text equals the source text</td>
<td>F</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>13. The paraphrase states the same information as the source text</td>
<td>F</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>14. The paraphrase has the same sentence structure as the source text</td>
<td>F</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>15. The paraphrasing tools produce suitable expressions</td>
<td>F</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>16. The paraphrasing tools produce grammatically correct sentences</td>
<td>F</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>17. The paraphrasing tools generate new sentences using synonyms</td>
<td>F</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>18. The paraphrasing tools generate new sentences using different syntax</td>
<td>F</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>28</td>
<td>40</td>
</tr>
</tbody>
</table>
19. The paraphrasing tools achieve linguistic diversity
F 9 10 6 0 0 4.12 0.78 1 Agree
% 36 40 24 0 0

20. The paraphrasing tools can rephrase ideas and information into new phrases
F 4 12 5 3 1 3.60 1.04 8 Agree
% 16 48 20 12 4

Weighted mean 3.9 Agree

Appendix G

Frequency of Students’ Responses, Means, Standard Deviations, Rank, and Weighted Mean of the Third Dimension

<table>
<thead>
<tr>
<th>Result</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>4.08</td>
<td>0.76</td>
<td>10</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.36</td>
<td>0.70</td>
<td>7</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.32</td>
<td>0.90</td>
<td>3</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.32</td>
<td>0.56</td>
<td>6</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.32</td>
<td>0.90</td>
<td>4</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.32</td>
<td>0.69</td>
<td>5</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.36</td>
<td>0.64</td>
<td>2</td>
</tr>
</tbody>
</table>
### Appendix H

**Students’ Responses to the Second Question**

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>QillBot</td>
<td>17</td>
<td>55%</td>
</tr>
<tr>
<td>Ginger</td>
<td>5</td>
<td>16%</td>
</tr>
<tr>
<td>SpinnerCeif</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Grammarly</td>
<td>9</td>
<td>29%</td>
</tr>
</tbody>
</table>

### Appendix I

**Students’ Responses to the Third Question**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving their writing outcomes</td>
<td>8</td>
<td>32%</td>
</tr>
<tr>
<td>Overcoming their difficulties with grammar and sentence structure</td>
<td>8</td>
<td>32%</td>
</tr>
<tr>
<td>Finding suitable synonyms</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Saving time and effort</td>
<td>4</td>
<td>16%</td>
</tr>
</tbody>
</table>

Total no. of responses 25 100%

### Appendix J

**Students’ Responses to the Fourth Question**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitating the paraphrasing process</td>
<td>8</td>
<td>29%</td>
</tr>
<tr>
<td>Improving the accuracy of writing</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td>Providing a variety of excellent features</td>
<td>7</td>
<td>25%</td>
</tr>
<tr>
<td>Enhancing students’ understanding of texts</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Avoiding plagiarism</td>
<td>4</td>
<td>14%</td>
</tr>
</tbody>
</table>

Total no. of responses 28 100%

### Appendix K

**Students’ Responses to the Fifth Question**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inaccuracy in word choice</td>
<td>4</td>
<td>16.0%</td>
</tr>
<tr>
<td>Misunderstanding the context</td>
<td>3</td>
<td>12.0%</td>
</tr>
<tr>
<td>Threatening creativity (dependency on the tools)</td>
<td>13</td>
<td>52.0%</td>
</tr>
<tr>
<td>No disadvantages</td>
<td>5</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Total no. of responses 25 100%
Student Engagement in Virtual Learning: The Self-Determination Theory Perspective

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Abstract
The exploratory case study explored how the lecturers motivate the students to engage in team-based online learning and how technologies in e-learning and remote classrooms motivate student engagement. Engagement is a multidimensional construct that includes behaviour, emotions, and cognition, essential in learning outcomes. Involving 101 undergraduate students, questionnaires and virtual interviews were conducted with the participants to elicit their perceptions and experiences concerning student engagement. Following the Self-Determination Theory framework of Deci and Ryan (1985), this study proved that students' engagement in the team-based online learning model is based on three perspectives: competence, sense of belonging, and autonomy. The theory highlights the importance of motivation and fulfilment of three basic human needs: autonomy, competence and relatedness. Data was collected through interviews and questionnaires focusing on the perceptions and experiences of undergraduate students who had participated in fully online learning for four semesters. Thematic analysis was used to analyze data divided into categories based on the Self-Determination Theory framework. The findings reveal that students' engagement in team-based online learning is influenced by their need for competence, belonging, and autonomy. Overall, this research highlights the importance of addressing student engagement in online learning and provides insight into how lecturers and technology can motivate and enhance student engagement in team-based online learning. Lecturers must continually adapt their instructional strategies and leverage technology to maintain and increase student engagement during the online learning experience.

Keywords: autonomy, competence, self-determination theory, sense of belonging, and student engagement

Introduction

The COVID-19 pandemic has created fully online teaching and learning where teachers and students use digital or networked technologies to make learning and teaching possible. The Coronavirus pandemic has impacted human lives and education fields. All face-to-face classes were suspended to minimize the spread of COVID-19. Several previous studies have shown that teachers faced such significant challenges as high levels of stress and anxiety because of problems with online learning. Many needed to familiarise themselves with the online learning environment (Chiu, 2021).

Although school closings and online instruction can save lives, they also lead to challenges. For instance, not all schools have online learning systems, likely contributing to learning setbacks. Additionally, these closures could affect students who depend on their schools for meals and parents who rely on schools for childcare programs (Binkley, 2020). Many problems emerged with online courses' quality that require experienced instructional designers and more significant assistance with video and multimedia components (Austin, 2010). In addition, the problems also come from the policies of online learning and remote teaching. Internet connection, IT equipment, limited collaborative learning opportunities, reduced learning motivation, and increasing learning burdens are other problems faced during online teaching and learning activities (Yan, 2021; Yates et al., 2021). The need for high digital literacy and the use of relevant information, as well as communicating with others through technological devices, is one of the obstacles to implementing online learning. Students who lack this ability may experience difficulties in online learning (Barbour & Reeves (2009). Based on the data, it has been proven that many students in Finish High School experience technical problems during the exam period many students in Finish high school experienced in increasing amounts of technical problems. They deal with technical applications (Niemi & Kousa, 2020).

The prior findings provided valuable insights into the issues students and teachers experienced during online learning, information about teaching and learning activities, and how the students engage in class, which should have been mentioned more. During online learning, various technology, logical practices, and technological use are implemented during remote learning. However, one of the most critical challenges teachers should tackle engaging students in fully online courses or classes. This research explored how the lecturers motivate the students to engage in team-based online learning and how technologies in e-learning and remote classrooms motivate student engagement. Overall, this study aims to shed light on the challenges teachers face in engaging students in fully online courses or classes and provide insight into practical approaches and strategies that encourage student motivation and engagement in team-based online learning.

Literature Review

The COVID-19 pandemic forced all schools and universities to switch to online learning, and various pedagogic practices and the use of technology were implemented as a consequence of online learning applications. The quality of student involvement in teaching and learning activities is an essential part that needs attention. Some engagement experts highly value engagement's importance in school and organized school contexts (Fredricks, 2011; Zepke, 2015). Engagement here can provide a richer picture of learning by incorporating aspects of behavior, emotion, and cognition into one multidimensional construct. Engagement is seen as a
glue linking the classroom, personal background, and the broader community since it becomes an essential aspect of contributing to learning. In Higher Education (HE), as seen from a structural perspective, student engagement reduces the role of student agency (Adi Badiozaman, Leong, & Jikus, 2020). It is a critical facilitator of retention, persistence, and success (Green, 2018; Kahu & Nelson, 2018).

Student engagement, which is energized by motivation, as explained by Self-Determination Theory (SDT), is a prerequisite for the success of virtual learning (Chiu, 2021). Deci and Ryan (1985) provide an appropriate framework. They argued that there are three basic human needs: autonomy, competence, and relatedness as a source of students' inherent and proactive motivation. The three needs of SDT, namely the support of autonomy, structure, and involvement, can foster students' interests and encourage them to engage in learning out of volition instead of externally imposed pressure (Hornstra et al., 2018). SDT is a theory of motivation that uses traditional empirical methods to build its theory and to inform its classroom applications. Edward L. Deci is one of the founders of SDT and has made significant contributions to the field of motivation and self-determination. He has extensively researched intrinsic and extrinsic motivation, focusing on supporting autonomy for increasing motivation and well-being.

Concerning the self-determination theory (SDT), several scholars in the field have contributed to the understanding and application of the theory, lending support to the work of Edward L. Deci and Richard M. Ryan. Below are some leading experts who have made significant contributions to SDT.

Self-determination theory (SDT) posits that humans have an inherent tendency to be curious and interested in learning and expanding their Knowledge. However, the educational environment often introduces external controls that can undermine the teacher-student relationship and hinder the natural volitional processes involved in effective learning. A large body of empirical evidence based on SDT suggests that intrinsic and autonomous forms of extrinsic motivation contribute to optimal engagement and learning outcomes in educational settings. Students are more likely to engage and experience effective learning when intrinsically motivated or independently motivated. Therefore, SDT has significant implications for classroom practices and educational reform policies. This suggests that the educational environment must foster intrinsic and autonomous forms of extrinsic motivation while supporting students' basic psychological needs. In doing so, educators can create engaging learning environments that promote optimal learning outcomes, student well-being, and meaningful educational reform (Fousiani et al., 2014).

In addition, Sheldon, & Gunz (2009) state that Self-determination theory (SDT) posits 3 evolving psychological needs for autonomy, competence, and relatedness. Many studies have established that all three experiences are essential for well-being. Three studies using cross-sectional, experimental, and longitudinal methodologies prove that perceived deficits in autonomy, competence, and relatedness evoke a corresponding desire to acquire missing experiences. However, positive satisfaction from perceived need satisfaction does not predict reduced desire for the matched need. Implications for homeostatic, evolutionary, and humanistic perspectives on basic psychological needs are discussed.

Several scholars have contributed to the field of SDT, supporting the work of Deci and Ryan. Their study has reinforced the notion that intrinsic motivation and autonomous forms of extrinsic motivation are conducive to optimal learning outcomes and engagement. In addition, research has shown that the three developmental psychological needs proposed by SDT
(autonomy, competence, and relatedness) are essential for well-being. A perceived deficit in this need can trigger a desire to gain the missing experience. However, achieving satisfaction in one need does not reduce the desire to satisfy other suitable needs. These findings have implications for multiple perspectives on basic psychological needs. In summary, SDT and its emphasis on motivation, supporting autonomy, and meeting basic psychological needs provide valuable insights for driving student engagement in online learning and beyond. Understanding and applying SDT can improve educational practice, enhance student well-being, and contribute to meaningful education reform.

**Method**

My research followed an exploratory case study in the context of virtual learning. A case study was used since this study explored the phenomenon of team-based learning models under the context of online learning. It used interviews and questionnaires to describe the cases in detail. This study described the students' engagement during the online class teaching-learning process using the self-determination theory of Deci and Ryan's theory (1985).

**Participants**

The exploratory case study took place in the context of virtual learning. The participants of this study already joined fully online learning for four semesters because of the Coronavirus pandemic. The lecturer usually delivered the materials using lecturing and discussion techniques followed by pair works or group works as parts of the team-based learning model. The online learning platforms used were Zoom, Google Meet, or video conference (Big Blue Button.). Following a virtual conference meeting, team-based activities assisted by technologies such as YouTube, Google files, and videos were implemented.

The team-based learning models were implemented during the teaching-learning activities. The team-based learning model included grouping students into diverse teams of five to seven students that work together throughout the class (Michaelsen & Bauman-Knight, 2004). The instructional designs applied were Analysis, Design, Development, Implementation, and Evaluation following ADDIE Branch’s theory (2009).

Involving 101 undergraduate students in completing the questionnaires and ten students to be interviewed to ensure the trustworthiness of the data, this study was deployed to explore how the lecturers motivate the students to engage in team-based online learning and how technologies in e-learning and remote classrooms motivate student engagement. The 101 students are spread across twenty departments of the university. The participants of this study were selected randomly based on their readiness to give opinions. In the study, the researcher approached the students with the support of the head of the students’ association.

**Instruments of Data Collection**

Before the data collection, the author held a virtual meeting with students to give them detailed information on the consent form and distributed informed consent form sheets. In-depth virtual interviews were also conducted with the participants to elicit their perceptions and experiences about the student's engagement in team-based online learning with the determination theory (SDT) framework. Based on the SDT theory of Deci and Ryan (1985), there were three basic needs for the students to be actively involved in the teaching-learning process. They were autonomy, competence, and relatedness.
Data Analysis

Thematic analysis patterns were used for analyzing the data. The patterns consist of identifying, analyzing, and reporting repeated patterns (Braun & Clarke, 2006). Data were segmented into two categories for the analyses: questionnaire and interview data. Each of the categories was divided into three leading indicators following the Self-determination theory (SDT) framework. They needed competence, a sense of belonging, and autonomy. The theme of each indicator emerged from the research data.

Results

This study explored how the lecturers motivate the students to engage in team-based online learning and how technologies in e-learning and remote classrooms motivate student engagement. Referring to Deci and Ryan's theory (1985), and based on the questionnaire and interview data, it can be seen that students’ engagement in the team-based online learning model is based on three perspectives: competence, sense of belonging, and autonomy.

The Need for Competence

The focus of SDT is mainly on the will or self-determination behaviour and socio-cultural condition in doing something. The need for competence encourages someone to do something. Table 1 below shows how to rate students’ engagement from a competence point of view.

Table 1. The level of competence needs affecting students’ engagement

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Sub</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Need of Competence</td>
<td>Knowing how to achieve my goals</td>
<td>33.7%</td>
<td>65.3%</td>
<td>1%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowing how to apply what I learn</td>
<td>17.8%</td>
<td>80.2%</td>
<td>2%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowing Where to get help</td>
<td>23.8%</td>
<td>73.3%</td>
<td>2.9%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowing how the systems here work</td>
<td>23.8</td>
<td>71.3%</td>
<td>4.9%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowing how to access learning support service</td>
<td>21.8%</td>
<td>73.3%</td>
<td>4.9%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowing how to use the library to support my learning</td>
<td>16.8%</td>
<td>67.3%</td>
<td>14.9%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Table 1 illustrated that the student's perception of the need for competence as the indicator of student engagement varied among 101 respondents. The questionnaire results showed that the needs of competence here dealt with knowing how to achieve the students' goals, knowing how to apply what the students learned, Knowing where to get help, Knowing how the systems here work, Knowing how to access learning support service, Knowing how to use the library to support my learning, Knowing how to help other students with their learning, and Knowing how to draw attention to what needs changing. From the data, it can be seen that 33.7% of the students strongly agree that they knew how to achieve their goals during the team-based online teaching-learning process, 65.3% agree, and 1% disagree. It means that most of the students were in neutral sites. In addition to that, dealing with the implementation of what the student knew, it denotes that only 17.8% of them strongly agreed that they knew what they learned during online team-based learning activities, 80.2% agreed that they knew what they learnt and 2% disagreed that they knew what they learned. Moreover, the need for competence was also signified by the student's understanding of finding further information or getting help. 23.8% of them strongly agreed that they knew where to get help in virtual learning during a pandemic, 73.3% agreed, and 2.9% disagreed. Besides that, another indicator of the need for competence is knowing how the system works. 23.8% of the students strongly agreed that they knew how the system of virtual learning worked during virtual learning, 71.3 agreed, and 4.9% disagreed that they knew the system of virtual learning.

The need for competence as the indicator of students' engagement was denoted by the student's understanding of how to access learning support services. Based on the questionnaire data, it was reported that 21.8% of students strongly agreed that they knew how to access learning support services during online learning, 73.3% agreed, and 4.9% did not agree. Therewithal, the student's comprehension of how to use the library to support their learning also contributed to improving the students' engagement. 16.8% of the students strongly agreed, 67.3% agreed, 14.9% disagreed, and 1% strongly disagreed on Knowing how to use the library to support the students' learning as the indicator of the need for competence. Besides that, based on data on how to help other students with their learning, it is reported that 12.9% of the students strongly agreed, 83.2% agreed, and 3.9% of the students did not agree that understanding how to help other students with their learning contributed to the student's engagement in virtual learning. The last indicator of the need for competence theme is Knowing how to draw attention to what needs changing. The results showed that 10.9% strongly agreed, 81.2% agreed, and 7.9% of the students disagreed that the Knowledge of how to draw attention to what needs as a part of competence indicators contributed to the students' Engagement.

The above data was supported by the students' interview data, which can be inferred from the following excerpts.
<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>A’s excerpts</th>
<th>B’s excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowing how to achieve my goals</td>
<td>A better understanding of learning activities. Do assignments on time Module I have received. Maximizing the PJJ implemented and adding references by seeking new Knowledge through webinars</td>
<td>Pay more attention to the material/subject matter of learning delivered by the, supervisors, and other students in the delivery of presentations. Pay attention to the assignments given by the lecturer and try to do it on time</td>
</tr>
<tr>
<td>2</td>
<td>Knowing how to apply what I learn</td>
<td>Diligently study material from various sources offline or online and then practising what I learned. More focus on learning Learning Writing, reading, and looking for a lot of relationships with other students Self-study</td>
<td>Participate in giving such training or webinars and learn from friends and YouTube about technology-based media and then apply them.</td>
</tr>
<tr>
<td>3</td>
<td>Knowing where to get help</td>
<td>Often, I read scientific articles and journals that support lectures and look for references in the library Self-study and looking for lots of references:</td>
<td>Read more books or materials, whether online or offline.</td>
</tr>
<tr>
<td>4</td>
<td>Knowing how the systems here work</td>
<td>Participate in learning regularly and on time. Even though online or online, we will always try to be active in Communicating in every lesson, Participating in all learning activities, and being present in the learning network Divide study time to the maximumDiscipline in managing time</td>
<td>Present on time before Zoom started, always learning new things, especially in the IT field that will make us easier to join online learning.</td>
</tr>
<tr>
<td>5</td>
<td>Knowing how to access learning support services</td>
<td>Access Websites on Education provided by the Ministry; look for sources from YouTube or Another web Increase reading</td>
<td>Find out information and Knowledge through social media or friends around you. Be more active in learning because here we are required to be independent and maximize our</td>
</tr>
</tbody>
</table>
Based on the above statement, it can be inferred that there is some way the students did to achieve their goals. Some of them are by paying good attention to the materials and also the assignments given to the students.

**Sense of Belonging**

Since online learning has been adopted by many higher institutions as a way to deliver instruction during the pandemic, students' engagement has become a central issue that needs to be revealed. Sense of belonging as an indicator of the student's engagement was proved by the research data. Students' sense of belonging flashed from the following components. Those are feeling accepted by teachers, feeling comfortable with other students, feeling I belong here, feeling I am valued as a person, feeling accepted by other students, wanting to meet teachers' expectations, wanting to learn alongside other students, and joining in social occasions.

Based on 101 questionnaire data, it was revealed that 19.8% of the students strongly agreed that they felt accepted by teachers, 76.2% agreed, and 4% disagreed. Additionally, students feeling comfortable with other students was also another indicator of a sense of belonging. 27.7% of the students strongly agreed that they felt comfortable with other students when joining online classes, 70.3% agreed, and 2% disagreed that they felt comfortable. Feeling that I belonged there is also an indicator of a sense of belonging. 13.9% of the students strongly agreed, 76.2% agreed, 8.9% disagreed, and 1% strongly disagreed. For Feeling I am valued as a person's indicator, 19.8% of the students strongly agreed, 78.2% agreed, and 2% disagreed. Feeling accepted by other students' indicators, 18.8% strongly agreed, and 81.2% agreed. Wanting to meet teachers' expectations indicator, 41% of the students strongly agreed, 57% agreed, and 2% disagreed.

The next indicator of a sense of belonging is Wanting to learn alongside other students. Based on questionnaire data, 40.6% of the students strongly agreed, and 59.4% agreed. For the Joining in Social occasions indicator, it was revealed that 21.8% of the students strongly agreed, 70.3% agreed, and 8.9% disagreed.
agreed, 69.3% agreed, 7.9% disagreed, and 1% strongly disagreed. The above data can be best summarized in Table 3 below.

Table 3 The level of sense of belonging affecting students' engagement

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Sub</th>
<th>Strongly Agree</th>
<th>agree</th>
<th>disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sense of Belonging</td>
<td>Feeling accepted by teachers</td>
<td>19.8%</td>
<td>76.2%</td>
<td>4%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling comfortable with other students</td>
<td>27.7%</td>
<td>70.3%</td>
<td>2%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling I belong here</td>
<td>13.9%</td>
<td>76.2%</td>
<td>8.9%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling I am valued as a person</td>
<td>19.8%</td>
<td>78.2%</td>
<td>2%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling accepted by other students</td>
<td>18.8%</td>
<td>81.2%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wanting to meet teachers’ expectations</td>
<td>41%</td>
<td>57%</td>
<td>2%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wanting to learn alongside other students</td>
<td>40.6%</td>
<td>59.4%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joining in social occasions</td>
<td>21.8%</td>
<td>69.3%</td>
<td>7.9%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Aligned with the above data, the interview data denoted that feeling a sense of belonging, such as feeling accepted by others and feeling comfortable, motivated the students to actively engage in the teaching-learning process. This above data was supported by the students' interview data that can be inferred from the following excerpts.

Table 4. The Narration of students' sense of belonging

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>A’s excerpts</th>
<th>B’s excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feeling accepted by teachers</td>
<td>If we are diligent when attending lectures, even though it is carried out online, the lecturers will assess our performance during lectures</td>
<td>In lectures, even though it is carried out online, the lecturer assesses our performance by noting the activities of the students in classroom discussions</td>
</tr>
<tr>
<td></td>
<td>Feeling comfortable with other students</td>
<td>My college friends are very good. They want to help each other when we have difficulties</td>
<td>Discussions and collaborating with friends during online learning are things that make me happy</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Feeling I belong here</td>
<td>I will cooperate with all campus residents and maintain cohesiveness within the campus and society so that the vision and mission of the institution are achieved properly</td>
<td>Maintain a good name for the institution and participate in a series of events held. Learn seriously. Maintain The good name of the institution where I study Gives suggestions and criticisms in a policy</td>
</tr>
<tr>
<td>3</td>
<td>Feeling I am valued as a person</td>
<td>At my campus, I can freely participate in some programs and competitions and behave well, both on campus and in society.</td>
<td>At this campus of many students with different backgrounds, we are not discriminated against</td>
</tr>
<tr>
<td>4</td>
<td>Feeling accepted by other students</td>
<td>Learning with the help of technology during this pandemic has made me creative, and with technology now, discussions and group work can still be carried out safely and comfortably</td>
<td>Discuss or coordinate with lecturers and friends about things that I don’t understand during online learning</td>
</tr>
<tr>
<td>5</td>
<td>Wanting to meet teachers’ expectations</td>
<td>Take online lectures, do assignments and quizzes, and discuss with friends and lecturers via Whatsapp Group, Zoom, Google Meet, etc. Look for other sources of information besides books and materials from lecturers</td>
<td>Participate in regular online meetings as scheduled, active in e-learning. Asking when learning, doing assignments, Maximize time Always asking</td>
</tr>
<tr>
<td>6</td>
<td>Wanting to learn alongside other students</td>
<td>In online learning, the help of friends through discussion and group work really helped me</td>
<td>Take an active role and learn, help friends who are having a hard time, and more Take part in every activity that is held sincerely in order to get a satisfactory score</td>
</tr>
<tr>
<td>7</td>
<td>Joining in social occasions</td>
<td>Join the sharing guru. Share Knowledge with friends. Sharing parenting with parents Join the love of reading movement by donating books to schools</td>
<td>Active in the lecture process, likes to socialize, and helps students who do not understand how to learn online systems.</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Autonomy**

Active engagement in learning during a pandemic requires students to do many things that require responsibility for their own learning, having clear goals, finding students’ own
resources to help them learn, making social contacts with other students, setting a high standard for myself, talking to students with views different from students, questioning teachers about their teaching, and taking a leadership role in student affairs. The following are questionnaire results from 101 respondents.

Table 5. The level of autonomy affecting students' engagement

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Sub indicator</th>
<th>Strongly Agree</th>
<th>agree</th>
<th>disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Autonomy</td>
<td>Taking responsibility for my learning</td>
<td>14%</td>
<td>75%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having clear goal</td>
<td>14%</td>
<td>75%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finding my own resources to help me learn</td>
<td>14%</td>
<td>75%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Making social contacts with other students</td>
<td>28.3%</td>
<td>71.7%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setting high standard for myself</td>
<td>15%</td>
<td>74%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talking to students with views different from my own</td>
<td>10%</td>
<td>75%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questioning teachers about their teaching</td>
<td>19%</td>
<td>78%</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taking a leadership role in student affairs</td>
<td>7.1%</td>
<td>65.3%</td>
<td>26.5%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

The above respondent data of questionnaires data was supported by the students' interview data that can be inferred from the following excerpts.
Table 6. *The Narration of students’ Autonomy*

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>A’s excerpts</th>
<th>B’s excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Taking responsibility for my learning</td>
<td><em>Always respond to the information received in the group of lecture subjects. Always be present and follow the website well. Update the sites that have been provided to see the material and work on the questions Implementing Learning while Implementing Health Protocols. Sharing with friends regarding things that need to be discussed both in terms of lectures, street vendors and in terms of thesis research. When in the discussion forum, I will ask for answers or respond to the discussion material.</em></td>
<td><em>Manage time well, learn and do what you love. Learn and manage your time well so you don’t mess up Join community organizations outside campus, participate in helping junior high school students, and creating public speaking content.</em></td>
</tr>
<tr>
<td>2</td>
<td>Having clear goals</td>
<td><em>As much as possible, I listen and try to understand every material in class, ongoing presentations, responsive to the lecturer’s questions, and active in group assignments. Understanding the material</em></td>
<td><em>Try harder to understand the lecture material because, during the hybrid, there is a lot of confusion.</em></td>
</tr>
<tr>
<td>3</td>
<td>Finding my own resources to help me learn</td>
<td><em>Independent learning, increasing experience both at work, in organizations, and in other social activities, sharpening soft skills and increasing self-potential Read more books or materials</em></td>
<td><em>Learning through videos and browsing the Internet Self-study</em></td>
</tr>
<tr>
<td>4</td>
<td>Making social contact with other students</td>
<td><em>When in the discussion forum, I will ask answers or respond to the discussion material</em></td>
<td><em>In my opinion, the existence of cell phones as a communication tool during online learning is vital because all information and communication are via cellphones</em></td>
</tr>
</tbody>
</table>
Student Engagement in Virtual Learning

Discussion

The focus of this research relates to the exploration of how lecturers motivate students to engage in team-based online learning and how technology influences student engagement in e-learning and remote classrooms. To analyze the data, this study uses the theory of Deci and Ryan (1985) which identifies three main perspectives that drive student engagement: competence, sense of belonging, and autonomy.

**Competence:**

Data shows that student engagement in team-based online learning is closely related to their perceived competence. This involves understanding how to achieve goals, applying learned knowledge, accessing learning support services, and navigating virtual learning systems. Questionnaire responses and interview excerpts explain the different levels of perceptions of competency among students. Although most agree on their competence, there are some differences. This suggests that some students may still struggle with certain aspects of virtual learning.
A sense of belonging:

This study highlights that a sense of belonging greatly influences student engagement. These feelings stem from factors such as feelings of being accepted by teachers and peers, comfort in the learning environment, and self-perceptions of being valued. The quantitative data presented illustrates the distribution of student responses to these indicators. The qualitative insights from the interviews reinforce the importance of these aspects in driving engagement. Feelings of acceptance and comfort create an environment conducive to active participation.

Autonomy:

Autonomy is emerging as an important factor in engaging students in online learning environments. The ability to take responsibility for learning, set clear goals, draw on personal resources, and interact with multiple perspectives plays a role in driving engagement. The survey data, as well as interview excerpts, highlight students' efforts to manage their learning journey independently. This autonomy empowers students to actively contribute and take on leadership roles, fostering a sense of ownership of their education.

When considering Deci and Ryan's theory, the results of this study are in line with the theory's emphasis on intrinsic motivation, self-determination, and psychological needs. Competence, a sense of belonging, and autonomy are interrelated aspects that contribute to the fulfillment of these psychological needs. Students who consider themselves competent, accepted, and empowered are more likely to be actively involved in their learning process.

These findings have practical implications for educators and institutions aiming to increase student engagement in online learning environments. Recognizing the importance of competency, educators must ensure clear communication regarding learning objectives and provide resources to address student knowledge gaps. Cultivating a sense of belonging involves creating a supportive and inclusive virtual classroom environment. Promoting autonomy requires a balanced approach. Educators should encourage independent learning while offering guidance and support when needed. Implementing peer interaction and group discussion can facilitate the sharing of diverse perspectives, strengthening students' sense of autonomy and engagement.

The above research supports Rovai, AP’s (2003) research in search of Higher Persistence rates in distance education online programs. Rovai's research explores the factors that influence persistence in online education, including student engagement. This complements your focus on engagement in online and distance learning contexts. In addition, Reeve's (2006) research on “Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit” focuses on teaching practices that support autonomy, showing that students perform better and are more involved when educators encourage autonomy in their learning processes. This supports the emphasis on autonomy as a driver of student engagement.

In conclusion, this study highlights the multidimensional nature of student engagement in team-based online learning. By considering the interplay between competence, belonging, and autonomy, educators can design more effective online learning experiences that meet students' intrinsic motivation and psychological needs.

Conclusion

This study was conducted to explore how the lecturers motivate the students to engage in team-based online learning and how technologies in e-learning and remote classrooms motivate student engagement. It shows that seeing from the Self-determination theory
framework, it is known that students' involvement in team-based online learning is influenced by their perceptions of competence. This includes knowing how to achieve their goals, applying what they have learned, accessing learning support services, understanding how systems work, and using the library to support their learning. The majority of students agreed or strongly agreed that they had these competencies, indicating a positive impact on their engagement. In addition, another important factor influencing student engagement is a sense of belonging. Students who feel accepted by the teacher, comfortable with other students, and valued as individuals show higher levels of engagement. In addition, students who want to live up to teacher expectations, learn with their peers, and participate in social events show a stronger sense of belonging and involvement. In addition to the two factors above, student autonomy is also an important element in promoting engagement. Students who take responsibility for their own learning, set clear goals, find their own resources, make social contacts, set high standards for themselves, engage in discussions with multiple perspectives, ask questions of teachers, and take leadership roles indicate a high level of involvement.

Overall, the findings indicate that students' engagement in team-based online learning is influenced by their needs for competence, belonging, and autonomy. These factors contribute to students' motivation and willingness to participate actively in the learning process. By encouraging these aspects, educators can increase student engagement and promote effective online learning experiences by applying instructional designs and using technology that can motivate student activity in the learning and teaching process.

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The Relationship between Reading Attitude and Student Grade Point Average

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Abstract
Reading is crucial for individuals to achieve optimal functioning, as it facilitates the development of cognitive processes such as critical thinking and decision-making, which foster the ability to conceptualize and solve problems. This research study is significant to conduct because there is a dear need for a scholarly inquiry more focused on establishing the relationship between students' attitudes toward reading and their academic performance while considering the influence of study skills across all levels of education. The main aim of the study was to examine the relation between the reading attitudes of students and their academic achievement by gaining higher grades in the class. Thus, the main research question the study was; What is the relationship between reading attitude and students’ grade point average? The main research tool used in the study was quantitative research method. The study was conducted in King Saud University for Health and Sciences (KSUHS) in Riyadh Saudi Arabia. Random sampling technique was used to select the sample. Sample size of the study was 146 students enrolled in first-year at KSUHS. The Pearson correlation value of E1, E2, E3, G1, E10, E13, E16, E21, G25, E1, E2, E22, E12, E7, E8, E14 lie between +1 and -1 which showed that variables have a significant relationship with each other. The hypothesis test values were (t=4.797, p<.01) which supported the hypothesis that a positive reading attitude contributes to higher grade point averages in the classroom due to which H1 was accepted. Correlation among the variables showed that grade point average is significantly correlated with Reading attitudes toward the English language.

Keywords: Grade Point Average, Reading, Attitude, English, English Grade Point Average

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DOI: https://dx.doi.org/10.24093/awej/vol14no3.13
Introduction

Reading is crucial for individuals to achieve optimal functioning, as it facilitates the development of cognitive processes such as critical thinking and decision-making, which foster the ability to conceptualize and solve problems (Abid et al., 2023). In addition to imparting wisdom, reading also impacts individuals' ability to apply acquired knowledge toward creative pursuits and practical applications (Russell, 1958). Therefore, reading is important in achieving success (Pretorius, 2008). As per prior scholarly investigations, reading attitude is among the most influential factors that impact reading. A person's reading attitude, which determines whether they are inclined to read books, impacts their reading behavior during childhood. It implies that children's emotional and attitudinal responses toward reading are influenced by their comprehension and awareness of its importance (Chotitham & Wongwanich, 2014).

The affective response to reading influences subsequent reading behaviors, which refer to an individual's observable actions or expressions in response to their predisposition towards particular stimuli, either in conformity or opposition (Stockman, 1999). According to McKenna (1995), there is a positive correlation between a student's reading behavior and the likelihood that they will succeed in school if they put in the time and effort necessary to become proficient readers. Moreover, several studies have shown that a student's outlook on reading is correlated with that student's academic success. According to Walberg (1985), lifelong reading development primarily depends on this aspect. Academic excellence is closely linked to one's disposition toward reading (Lazarus & Callahan, 2000). That is the reason why the current research is aimed to study the relationship between reading attitudes and grade point averages of first-year university students in Saudi Arabia.

According to McKenna and Kear (1995), attitude is regarded as a learned inclination to continually act in a good or bad manner towards a particular object. According to Alexander and Filler's (1976) conceptualization, reading attitude refers to a complex set of emotions and affective responses that influence an individual's inclination to engage with or avoid reading-related activities (1995, p. 934). McKenna and Kear (1990) performed a factor analysis based on previous research to gather evidence, revealing two aspects of reading attitude: a dimension of leisurely reading and an attitude towards academic reading related to school. In this study, the researcher used the second dimension of reading attitude which is the student’s reading attitude towards school-related and academic reading. The research questions of current research are as thus as follows:

i. What is the relationship between reading English attitude and students’ grade point average?

ii. What differences are observed between reading attitude and students' grade point average?

iii. What is the contribution of reading attitude to students’ grade point average?

iv. What are students’ attitudes towards reading English in general?

v. In what way does reading attitude affect the contribution of/ to a higher grade point average?

The hypothesis of this research study is as follows:

H1: Positive reading attitude contributes to a higher grade point average.
The Current Study

Overall, there needs to be more scholarly inquiry focused on establishing the relationship between students' attitudes toward reading and their academic performance while considering the influence of study skills across all levels of education. Several Saudi Arabian studies (Rasheed, 2012) have examined how students' reading perspectives relate to their overall academic success. Many researchers have focused only on the correlation between reading frequency and scholastic achievement, as Ehsan and Sultana (2020) reported. In addition, Fazal et al. (2012) looked at how well students did academically and how much time they spent studying. This analysis looks at first-year undergraduates in Riyadh, Saudi Arabia, to see whether there is any relationship between their reading mindset and their grade point average.

Literature Review

Grade Point Average

Academic achievement pertains to the level of success that students have attained in their educational pursuits, specifically in achieving their educational objectives. According to Crow and Crow's (1996) definition, academic achievement pertains to skill acquisition. They claim that the degree to which a person has acquired knowledge-based skills through formal education and training is a measure of academic achievement. Academic performance is typically evaluated through the administration of standardized assessments, with the school employing predetermined criteria to assign ratings. The assessment of academic performance is frequently quantified using a grade point average derived from the student's grades.

Reading Attitude and Academic Achievement of Students

The acquisition of wisdom through reading is crucial for individuals' intellectual, behavioral, and psychological growth (Hassan et al., 2021), as it enables them to improve their understanding of information and effectively comprehend written language (Al-Jarf, 2019). Whitten et al. (2016) stated that there are various reasons why individuals engage in reading, including but not limited to knowledge acquisition, leisure, pleasure, relaxation, and academic achievement. Both Erguvan (2016) and Mirza et al. (2021) argued that reading is more than just an idle activity; it is an integral part of the human experience. Reading fosters the cultivation of critical and evaluative thinking skills instrumental in problem-solving through contextual conceptualization. Reading thus contributes to improving academic performance among students (Chotitham & Wongwanich, 2014).

According to Erdem (2015), the ability to read is vital to academic and professional success since it is cultivated in early childhood and remains steady throughout a person's life. According to Fischer et al. (2015), reading gives students the confidence to face challenges like academic frustration, ignorance, and adversity. According to Palani (2012), reading is a means of communication. In contrast, cultivating a reading habit represents an academic pursuit that allows students to derive value from written materials. According to Walia and Sinha's (2014) research, the development of reading habits necessitates the acquisition of intricate abilities, including the ability to comprehend a message, quickly skim and scan information, and grasp the contextual nuances of a text.

Iheakanwa et al. (2021) proposed that readers' ability to envision what they read effectively significantly impacts the efficacy of reading content. According to Biyik et al. (2017), effective studying involves utilizing the prescribed definitions of words and terms while narrating in one's
own words. Conversely, researchers assume the responsibility of providing elucidation and coherence.

The significance of students' reading practices and study skills has been widely acknowledged in scholarly literature for many years. Despite identifying various shortcomings in prior research, scholars have focused on a select few relevant to the specific study context. According to Nguyen Thi Thu (2022), students' eventual competency, comfort, and knowledge of the audience may be linked back to the reading habits and study abilities they were taught in school. Simultaneously, prior scholars directed their attention toward students' reading patterns at the tertiary education level. According to Hassan et al. (2021), certain methodological approaches may result in questionable outcomes that fail to support the notion that reading practices and study skills impact academic performance.

Research Method
The quantitative research method as an appropriate data collection method for the target participants was used to conduct this research study.

Participants
Random sampling technique was used to determine the participants of the study. The study was conducted during the spring semester of 2023. The sample size of this research study was 146 male students. The participant of the study were selected from first-year students enrolled at King Saud University for Health and Sciences in Riyadh Saudi Arabia. Variables used to select the sample were the reading attitude and grade point average of the students.

Research Instruments
The researcher created a survey questionnaire with closed-ended questions to gather data from the participants. The initial version was submitted to the researcher's supervisor for feedback and guidance. The collected numerical data was entered in the software and correlation tests were applied to examine the relationship between study variables. A 31 Item and 1 to 5 (1= Strongly Agree, 2= Agree, 3= Neutral, 4=Disagree, 5=Strongly Disagree) measurement scale was developed to collect the data.

Research Procedures
The data was collected during English classes from first-year students in the middle of the academic year.

Analysis
To conduct the data analysis, IBM SPSS statistics version 25 was used in this research investigation. The data analysis in this study was conducted through descriptive statistics and correlation analysis.

Results
Relationship Between Reading English Attitude And Students’ Grade Point Average, Perspectives on Reading English among College Students
The first part of the questionnaire measured the relationship between reading English attitude and the grade point average of students.
The Relationship between Reading Attitude and Student Grade Point Average

<table>
<thead>
<tr>
<th>Table 1. Correlations</th>
<th>1 E1</th>
<th>2 E2</th>
<th>3 E3</th>
<th>4 G1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. E1 Reading English is troublesome. Pearson Correlation</td>
<td>1</td>
<td>-.378**</td>
<td>-.296**</td>
<td>.091</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.275</td>
</tr>
<tr>
<td>2. E2 Reading English is useful for my future career. Pearson Correlation</td>
<td>-.378**</td>
<td>1</td>
<td>.326**</td>
<td>-.008</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.928</td>
<td></td>
</tr>
<tr>
<td>3. E3 Reading English is useful to get a good grade in class. Pearson Correlation</td>
<td>-.296**</td>
<td>.326**</td>
<td>1</td>
<td>-.065</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.437</td>
<td></td>
</tr>
<tr>
<td>4. G1 Current GRADE POINT AVERAGE Pearson Correlation</td>
<td>.091</td>
<td>-.008</td>
<td>-.065</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.275</td>
<td>.928</td>
<td>.437</td>
<td></td>
</tr>
</tbody>
</table>

Table One indicates the relationship between student reading attitudes toward English and their grade point average in the classroom. The total sample size N of the study is 146. The Pearson correlation value between E1, E2, E3 and G1 is -.378, -.296 and .091, respectively. All the values lie between -1 and +1 which shows a significant relationship among study variables and Reading Attitudes towards English has a significant relationship with the grade point average of students. This research question also answers the research question that student reading attitudes toward reading English, in general, have a significant relationship with each other.

Differences Between Reading Attitude And Students’ Grade Point Average

<table>
<thead>
<tr>
<th>Table 2. Correlations</th>
<th>G1</th>
<th>E10</th>
<th>E13</th>
<th>E16</th>
<th>E21</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 current grade point average Pearson Correlation</td>
<td>1</td>
<td>-.067</td>
<td>-.062</td>
<td>-.165*</td>
<td>.120</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.426</td>
<td>.465</td>
<td>.049</td>
<td>.155</td>
</tr>
<tr>
<td>E10 I sometimes feel anxious that I may not understand even if I read. Pearson Correlation</td>
<td>-.067</td>
<td>1</td>
<td>.332**</td>
<td>.523**</td>
<td>-.224**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.426</td>
<td>.000</td>
<td>.000</td>
<td>.007</td>
</tr>
<tr>
<td>E13 Reading English is dull. Pearson Correlation</td>
<td>-.062</td>
<td>.332**</td>
<td>1</td>
<td>.481**</td>
<td>-.323**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.465</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>E16 I feel tired if I read English. Pearson Correlation</td>
<td>-.165*</td>
<td>.523**</td>
<td>.481**</td>
<td>1</td>
<td>-.341**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.049</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>E21 Reading English is enjoyable. Pearson Correlation</td>
<td>.120</td>
<td>-.224**</td>
<td>-.323**</td>
<td>-.341**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.155</td>
<td>.007</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table Two measures the differences between reading attitudes and students’ grade point averages. The Pearson correlation values of G1, E10, E13, E16 and E21 are 1, -.067, -.062, -.165 and .120. All the values lie between -1 and +1 which indicates that there are differences of opinion of students regarding their reading attitudes and grade point average.
**Contribution of Reading Attitude To Students’ Grade Point Average**

Table 3. *Correlations*

<table>
<thead>
<tr>
<th></th>
<th>G24</th>
<th>G25-</th>
<th>E1</th>
<th>E2</th>
<th>E4</th>
</tr>
</thead>
<tbody>
<tr>
<td>G24- Your grade in</td>
<td>1</td>
<td>0.568**</td>
<td>0.055</td>
<td>0.128</td>
<td>0.013</td>
</tr>
<tr>
<td>Reading course ENGH 103 =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGH 103 = G24</td>
<td></td>
<td>0.00</td>
<td>0.507</td>
<td>0.125</td>
<td>0.879</td>
</tr>
<tr>
<td>G25- Your grade in</td>
<td>0.568**</td>
<td>1</td>
<td>0.109</td>
<td>0.050</td>
<td>-0.057</td>
</tr>
<tr>
<td>Grammar course ENGH 102 =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGH 102 = G25</td>
<td></td>
<td>0.00</td>
<td>0.190</td>
<td>0.547</td>
<td>0.495</td>
</tr>
<tr>
<td>E1- I can become</td>
<td>0.055</td>
<td>0.109</td>
<td>1</td>
<td>0.396**</td>
<td>0.244**</td>
</tr>
<tr>
<td>more sophisticated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if I read English.</td>
<td></td>
<td>0.507</td>
<td>0.190</td>
<td>0.000</td>
<td>0.003</td>
</tr>
<tr>
<td>E2- I can get</td>
<td>0.128</td>
<td>0.050</td>
<td>0.396**</td>
<td>1</td>
<td>0.296**</td>
</tr>
<tr>
<td>various kinds of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information if I</td>
<td></td>
<td>0.125</td>
<td>0.547</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>read English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E4- Reading English</td>
<td>0.013</td>
<td>0.057</td>
<td>0.244**</td>
<td>0.296**</td>
<td>1</td>
</tr>
<tr>
<td>is useful for my</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>future career.</td>
<td></td>
<td>0.879</td>
<td>0.495</td>
<td>0.003</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table Three measures the contribution of reading attitudes and students' grade point averages. The correlation values of G25, E1, E2, and E4 are .568, .055, .128 and .013 respectively. All the values lie between +1 and -1 which shows that variables have a significant relationship with each other and reading attributes have a significant contribution to the grade point average of students.

**Reading Attitude Affect The Contribution Of/ To Higher Grade Point Average**

Table 4. *Correlations*

<table>
<thead>
<tr>
<th></th>
<th>E22</th>
<th>E12</th>
<th>E7</th>
<th>E8</th>
<th>E14</th>
</tr>
</thead>
<tbody>
<tr>
<td>E22- I get to know</td>
<td>1</td>
<td>0.391**</td>
<td>0.305**</td>
<td>0.218**</td>
<td>0.557**</td>
</tr>
<tr>
<td>about different values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if I read English.</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.008</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>E12- Reading English</td>
<td>0.391**</td>
<td>1</td>
<td>0.478**</td>
<td>0.218**</td>
<td>0.445**</td>
</tr>
<tr>
<td>is useful to get credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for the class.</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.008</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>E7- Reading English</td>
<td>0.305**</td>
<td>0.478**</td>
<td>1</td>
<td>0.378**</td>
<td>0.263**</td>
</tr>
<tr>
<td>is useful to get a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>good grade in the</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.000</td>
<td>0.001</td>
</tr>
<tr>
<td>class.</td>
<td></td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>E8- I can acquire</td>
<td>0.218**</td>
<td>0.218**</td>
<td>0.378**</td>
<td>1</td>
<td>0.196*</td>
</tr>
<tr>
<td>broad knowledge if I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>read English.</td>
<td></td>
<td>0.008</td>
<td>0.008</td>
<td>0.000</td>
<td>0.018</td>
</tr>
<tr>
<td>N</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
<td>146</td>
</tr>
</tbody>
</table>
Table Four indicates the measurement of reading attitude affecting the contribution to higher grade point average. The Pearson correlation values between E22 and E12, E7, E8, E14 are .391, .305, .218 and .557 respectively. All the values of correlations lie between +1 and -1 which shows that variables have a significant relationship with each other.

**Hypothesis Testing**

Table 5. Direct hypothesis testing

<table>
<thead>
<tr>
<th>H1</th>
<th>IV</th>
<th>DV</th>
<th>F</th>
<th>$R^2$</th>
<th>B</th>
<th>SE</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>A positive reading attitude contributes to a higher grade point average</td>
<td>reading attitude</td>
<td>grade point average</td>
<td>23.0</td>
<td>.138(13.8%)</td>
<td>4.5</td>
<td>5</td>
<td>4.79</td>
</tr>
</tbody>
</table>

The results of data analysis for hypothesis one show that 13.8% variation ($R^2=.138$, F=23.009, $P<.01$) in grade point average is predicted by the Reading attributes of students. The Coefficient ($β=4.54$, $P<.01$) indicates that with one unit change in reading attitude, 4.45 positive units will change in grade point average. The results ($t=4.797$, $p<.01$) support the hypothesis that a positive reading attitude contributes to higher grade point averages in the classroom due to which H1 is accepted.

**Discussion**

According to Ahmed's (2015) assertion, students pursue the study of English due to their perception that it presents an opportunity for professional growth. To achieve professional success and advance their careers, students develop specific attitudes toward reading in English. English is uniquely positioned in contemporary society as it has become the predominant language of global communication. Certain students of language may find themselves residing within a community where the target language is spoken, either for a limited period or indefinitely. Acquiring proficiency in English would be imperative for the students' survival in the said community.

In contrast, individuals intending to pursue higher education in the United States, United Kingdom, Australia, or Canada may require proficiency in English to compose reports and essays and participate in academic seminars effectively. The nomenclature "English for Special or Particular Purposes" has been utilized to refer to circumstances in which learners possess a particular motivation for acquiring the language. Professionals in the business industry require proficiency in the English language to facilitate global commerce. Proficiency in English may be a prerequisite for servers to cater to their customers' needs effectively.

The study by Ahmed (2015) involved the analysis of survey data collected from 238 undergraduate students studying English as a Foreign Language (EFL) at an accredited public institution in Malaysia. The survey centered on the participants' disposition towards acquiring English language skills and potential factors that may have impeded their progress. A survey instrument comprising 19 items was developed and distributed to a sample of 238 students for data collection. This research aimed to examine (1) the perspectives of learners towards the utilization of English in various domains; (2) factors that could have impacted the efficacy of English education for students; and (3) the viewpoints of non-English majors in Malaysia regarding
English learning. The qualitative research findings indicate a highly favorable disposition towards the acquisition and application of the English language across diverse domains of usage. The data further indicated that most students harbored negative emotions or apprehensions towards instruction in class in the context of their educational journey. The attitudes of students from diverse fields towards acquiring the English language differ based on their areas of usage and academic skill focus. It indicates that more than a solitary lesson or approach to instruction is required. Various recommendations have been put forth about pedagogical approaches, syllabus design, instructional resources, and the position of the English language in Malaysia. The findings of this study comply with the findings of our research study which assert that students build positive reading attitudes to score good grades in higher grade point average in the classroom.

Reading attitudes have been shown to correlate with success in school, according to research by Balan, Katenga, and Simon (2019). Acquiring reading habits about learning and non-learning materials has enhanced students' understanding of concepts, capacities for critical thinking, and language proficiency, ultimately leading to superior academic achievements. This study took a quantitative look at how much of an effect students' reading habits had on their grades at Asia-Pacific International University in Mauk Lek, Thailand. To conduct the survey, the researcher employed a convenience sample of 250 people. The data were processed using SPSS, a statistical program for social science research. The study employed multiple regression techniques and correlation matrix estimation to examine the impact of reading behaviors on academic performance. The study has established a significant correlation between academic performance and the purpose of reading with the five variables.

Moreover, the results revealed that a significant proportion of the participants recognized the significance of reading. Nevertheless, the participants exhibited a low frequency of engaging in reading activities. The research suggests that policymakers within academic institutions should formulate strategies to enhance students' reading practices. It entails furnishing educational materials to incentivize students to engage in reading. Furthermore, it is recommended that administrators devise methodologies for educators to design instructional exercises that facilitate cultivating reading habits, thereby enhancing students' scholastic achievements.

According to Bond et al. (1994) assertion, the act of reading involves the ability of individuals to differentiate between symbols and reading patterns. Consequently, comprehension of the written material can be facilitated, and the retention of the favored passages can be enhanced by the reader. Chettri and Rout (2013) conceptualized reading as a discretionary process employed by individuals to evaluate diverse subjects expounded in a text, and posited that reading serves as a conduit for individuals to acquire a more profound comprehension of their milieu. According to Okwilagwe (1998), the act of reading is the action of extracting meaning from a text's individual parts. It is generally accepted that reading is a habitual activity that requires regular participation. The extent of reading is measured by the number of pages read and the total time spent reading.

Reading requires a wide variety of diverse mental operations, such as introspection, reflection, analysis, synthesis, ideation, evaluation, and planning. Reading should include several mental processes, including taking in information, analyzing it, making predictions, defining terms, and understanding the author's point (Okwilagwe, 1998). According to this definition, reading is an activity that helps one's mind grow and mature. This definition is in line with the underlying assumptions of the current investigation.

Frequent engagement in the act of reading is commonly regarded as habitual behavior. To clarify, the act of reading is quantified by the amount of reading materials consumed and the
duration of time allocated for reading (Wagner, 2002). Reading habits, as defined by Chettri and Rout (2013, p. 13), include the following factors: the number of books read, the frequency with which books are read, and the average time spent on each book.

Wagner et al. (2002) asserted that the reading attitude is the quantity and scope of materials assimilated, as well as the maximum duration dedicated to reviewing and contemplating the ideas.

Reading is a valuable activity in academic settings as it enables individuals to enhance the depth of their understanding. The process of retaining information is beneficial for students and can result in notable transformations in an individual's social, religious, and economic circumstances. Okwilagwe (1998) observed that effective reading behaviors can lead to an expansion of a student's awareness, resulting in positive outcomes. Thus, in the context of this research, reading habits are operationally defined as the deliberate allocation of time and effort towards engaging in reading activities, both for recreational and educational purposes, until an individual develops a proclivity towards reading.

The discussion of the academic literature and the major findings of this study shed light on the correlation between students' positive reading attitudes and their academic success. Differences in academic English readers' perspectives were uncovered by the studies, and achievement of good grades is also correlated with each other which shows that the students with lower reading attitudes do not achieve good grades in English whereas the contribution of better reading attitudes of general and academic English increases the chances of good grades in the classroom.

Limitations and Suggestions for Future Research

The findings of the current investigation contribute significantly to the understanding of the affective relationship that exists between students' reading attitude and their grades. However, it is crucial to note that the findings are provisional rather than conclusive due to the study's various constraints. The research required an explicit distinction between scholastic and recreational reading. Since students may have varied proclivities for different sorts of reading, studying their perspectives on these topics is a promising avenue of research. Future research endeavors could explore the effects of diverse media formats, such as magazines, news articles, and manuals.

The second point of consideration pertained to the potential influence of two methodological factors on the association between reading attitudes and grade point average. Specifically, it was recommended that the utilization of a measurement scale with greater reliability be employed. The third constraint pertains to how the findings can be applied to other contexts or populations. The research was conducted in Riyadh, Saudi Arabia, where learners' access to English is constrained primarily due to its limited necessity in everyday life. The attitudes towards reading and the transfer patterns of learners may vary in contexts such as those involving second language acquisition or bilingualism. Research conducted in diverse sociocultural settings may yield varying outcomes.

The fourth constraint pertains to a theoretical framework. The researcher examined students' attitudes toward reading related to their overall academic performance in this research. The study drew upon prior research that explored this relationship, and the theoretical implications of these earlier findings were discussed concerning the current study's results. The study's sample size represents the fifth constraint. To enhance the generalizability of the findings on a broader scope, subsequent scholars may consider employing a larger sample size.
Conclusion

The present research has significant educational implications. Students who exhibit a favorable disposition towards reading in English, both in academic and general contexts, are more inclined to achieve high academic performance. Students who possess a positive attitude towards reading are more likely to comprehend complex sentences and lectures within the classroom, thus increasing their potential for an enjoyable profession in the future. Educators should motivate these students by recommending reading resources suitable for their linguistic proficiency. Conversely, in cases where students exhibit disparities in their English reading abilities, they may encounter challenges in achieving high grade point averages or effectively meeting the demands of assignments and exams.

Certain students may not realize their full potential despite achieving proficiency in reading at a particular stage of their development, owing to their reluctance to engage in additional English reading. Research has demonstrated that individuals' reading attitudes impact their reading habits and engagement with English texts. Educators should endeavor to comprehend the learners' perspectives regarding reading, not only in their native language but also in English. In the event of unfavorable attitudes, it is imperative to cultivate affirmative attitudes toward reading to the fullest extent possible. The current investigation has shown that one's English language proficiency level may have varying effects on various categories of reading disposition. Hence, educators must consider the impact of learners' linguistic development on their reading disposition, including the timing and manner of such influence.

Educators should endeavor to comprehend the learners' perspectives concerning reading, encompassing not only fundamental language but also English. In the event of unfavorable attitudes, it is advisable to make concerted efforts to cultivate constructive attitudes toward reading. The present investigation revealed that distinct categories of reading disposition might be influenced in varying ways by one's level of proficiency in the English language. Hence, educators must also consider the impact of learners' linguistic development on their reading disposition, including the timing and manner in which it occurs.

About the Author

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References


The Relationship between Reading Attitude and Student Grade Point Average

Hasan


The Role of L2 Vocabulary Knowledge in Writing Proficiency from the Perspective of Mediating Effect of Fluency

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Abstract
The current study aims to probe the effectiveness and predictability of four aspects of lexical knowledge in writing proficiency of 312 Chinese university students of English as an ESL/EFL by pathways analysis of structure equation modeling. Furthermore, Bootstrapping and Monte Carlo statistical methods were used to analyze the mediation role of vocabulary fluency in the relationship between lexicons and writing proficiency. The results indicated that (a) the tested four aspects of lexicon knowledge (receptive/productive vocabulary breadth/depth) were all found to have a potential effect on writing; however, the effect of productive lexicons on writing proficiency is higher than that of receptive ones, and the effect of depth is better than that of breadth in both reception and production; (b) regression analysis demonstrated that overall lexical knowledge can account for 50 percent of the variance in writing; (c) vocabulary fluency plays a partial mediation role between vocabulary knowledge and writing ability; and (d) given the mediation role of lexicon fluency, the regression coefficient of both receptive vocabulary breadth and receptive vocabulary depth raised by 3 percent respectively; however, the regression coefficient of productive vocabulary has no changes. These findings suggest that vocabulary fluency can help language learners perform better in writing ability if only they have high vocabulary levels, especially productive vocabulary knowledge.

Keywords: mediating effect, structure equation modeling, L2 vocabulary fluency, vocabulary knowledge, writing proficiency

Introduction

It has been proved that lexicon knowledge makes a significant contribution to the process of language development and can effectively predict language proficiency in both ESL and EFL. Many scholars argue that good command of the lexicon is an essential prerequisite for successful language learning (Nation, 2013; Qian & Lin, 2020; Schmitt, 2010). The association between lexicon knowledge and different language proficiency has attracted much research attention, for example, the studies on vocabulary and reading (Cheng & Matthews, 2018; Ibrahim et al., 2016; Karakoç & Köse, 2017; Nouri & Zerhouni, 2016; Qian, 2002; Stæhr, 2008b; Zhang & Zhang, 2020); the studies on vocabulary and listening (Cheng & Matthews, 2018; Dabbagh, 2016; Farvardin & Valipouri, 2017; Stæhr, 2009; Teng, 2016); the studies on vocabulary and speaking (Alharthi, 2020; Uchihara & Saito, 2016, 2019); and the reflections on vocabulary and writing (Dabbagh & Enayat, 2019; Flora, 2021; Karakoç & Köse, 2017; Zaytseva et al., 2022; Zhang & Zhang, 2020). Of the four language skills covering reading, listening, speaking, and writing, the researchers mainly focused on the correlation between word knowledge and receptive language skills, including listening and reading, instead of productive language skills, including speaking and writing, probably because reading and listening are easier to be assessed and scored than speaking and writing.

Nation (2013) shows that lexical knowledge is crucial in writing skills. Of all the four skills of language, however, a few researchers focused on the role of vocabulary knowledge in writing skills. In research on the association between lexicons and writing performance, some studies only gave special attention to the effect of receptive lexicon breadth and depth in predicting L2 writing proficiency (Dabbagh & Enayat, 2019; Kilic, 2019). Miralpeix and Muñoz (2018) explored the relationship between one-dimension (receptive vocabulary breadth) and multi-dimension language skills (listening, reading, speaking, and writing). Atai and Dabbagh (2010) examined the correlation between receptive lexical depth and writing performance. Tong et al. (2022) investigated the relationship between the four dimensions of linguistic knowledge and L2 listening.

Although researchers showed an increasing interest in the link between receptive/productive vocabulary breadth/depth and different language skills, the studies in L2 writing performance attracted less attention, especially when considering vocabulary fluency as a mediation variable concurrently. Therefore, there is little empirical research data to shed light upon the relative significance that these aspects of vocabulary knowledge have on L2 writing.

In addition, it is challenging for most Chinese university students to develop both their writing skills and vocabulary knowledge, perhaps because Chinese is different from English. Although they recite many words in the book list, it is tough for Chinese university students to use the appropriate words when they are writing. The main reason is that when learning vocabulary, they do not know the conceptual framework of vocabulary knowledge, and do not understand which dimensions of vocabulary are more conducive to improving their writing skill. In other words, they do not understand the actual relationship between vocabulary knowledge and writing ability, so they cannot apply the learned vocabulary to write in a targeted manner. Therefore, the purpose of the current study is to help Chinese English learners and other non-native English learners elsewhere effectively to develop their vocabulary knowledge and improve their writing ability by ascertaining the relationship between four aspects of lexical knowledge and writing proficiency.

The research has multiple significances. Firstly, it is expected to make a substantial contribution to L2 vocabulary acquisition in China and other places. Additionally, the study
provides a structural equation model of the relationship between four dimensions of L2 vocabulary knowledge and four language skill development. This will help ESL/EFL researchers and learners disentangle their complicated interrelationships.

To help Chinese university students comprehensively understand the extent of lexical knowledge affecting the quality of writing and have a good command of English, the present study thus is administered to ascertain the relationship between four aspects of linguistic knowledge and writing proficiency based on the mediating effect of vocabulary fluency, to clarify how much these aspects of linguistic knowledge affects writing quality and whether these aspects of linguistic knowledge can predict writing proficiency and whether the impact effect of these aspects of linguistic knowledge on writing will change under the mediation of vocabulary fluency.

Based on the research aims identified, we proposed three research questions:
RQ1. How important are the four aspects of L2 vocabulary knowledge for writing?
RQ2. To what extent can writing proficiency be predicted by the four aspects of L2 vocabulary knowledge?
RQ3. How does L2 vocabulary fluency play a role in the association between the four aspects of L2 vocabulary knowledge and writing proficiency?

**Literature Review**

**Breadth and Depth**

Schmitt (2014) shows that vocabulary knowledge is not only complex but also multi-faceted, and this complicated phenomenon always perplexes researchers and ESL/EFL teachers to clarify the exact nature of vocabulary knowledge. To handle the complex issue, researchers have tried different vocabulary frameworks, among which two lexical dimensions have been widely accepted by researchers, that is, lexical breadth and depth (Henriksen, 1999; Meara, 1996; Read, 2000). Lexical breadth means the number of words which language learners know, while lexical depth implies the degree of vocabulary knowledge language learners understand (Nation, 2013; Schmitt, 2014).

**Receptive and Productive**

Vocabulary knowledge is divided into two facets: receptivity and productivity (Henriksen, 1999; Nation, 2013). Nation (2013) thinks that the concept of receptive knowledge is that language input is accepted by other people by listening and reading and trying to make it clear, while the idea of productive knowledge is that language forms are produced by speaking and writing to inform other people of information. Essentially, receptive vocabulary application is perceiving the word’s form and retrieving the word’s meaning while listening or reading. Productive vocabulary application is trying to express meaning in spoken or written word form (Nation, 2013).

**Four Aspects of L2 Lexical Knowledge**

Based on two dimensions and two facets of L2 vocabulary knowledge, four elements of vocabulary knowledge constitute the essential components of vocabulary acquisition. Thus, by synthetically analyzing these researchers’ lexical framework concept, four aspects of vocabulary knowledge come into being: receptive vocabulary breadth/size (Dabbagh & Enayat, 2019; Henriksen, 1999; Nation, 2013; Qian, 2002); receptive vocabulary depth (Dabbagh & Enayat, 2019; Henriksen, 1999; Meara, 1996; Nation, 2013; Qian, 2002); productive vocabulary breadth (Cheng & Matthews, 2018); and productive vocabulary depth (Alireza, 2017). Although many
researchers have explored the association between these aspects of lexical knowledge and different language skills, however, they focused on the correlation between part of aspects of vocabulary knowledge and receptive language skills, especially reading proficiency. Thus, it is essential to ascertain the contribution of these four aspects of lexical knowledge to productive skills, e.g., writing.

**Lexical Knowledge and Writing**

It has been acknowledged that lexical knowledge plays a crucial role in developing L2 learners’ writing skills. The significance of lexicon knowledge in evaluating writing proficiency has motivated some scholars and researchers to investigate the association between lexicons and writing. Santos (1988) identifies the crucial role of lexicons in EFL students’ writing based on the lexical errors made by learners. Nation (2013) notes that it is essential to develop lexical knowledge for reading and writing. Laufer (2013) shows that focusing on different aspects of vocabulary can strengthen lexicon use in writing. The researchers highlight the significance of vocabulary knowledge for writing; however, various researchers have a different focus on other aspects of vocabulary knowledge in writing.

Taking lexical dimension as the distinguishing point, we will categorize and analyze the literature on the association between L2 lexicon knowledge and writing capability in the following section.

Firstly, we carefully checked the studies on the association between one aspect of L2 lexical knowledge, receptive vocabulary breadth, and writing. On 88 Denmark EFLL participants, Stehr (2008a) conducts an analysis exploring the correlation between receptive vocabulary breadth and three language skills covering writing, listening, and reading comprehension and finds that receptive vocabulary breadth moderately correlated with listening capability ($r = .69$) and strongly linked with their reading ability ($r = .83$) and writing ability ($r = .73$), although writing belongs to productive language skill. Miralpeix and Muñoz (2018) investigated the correlation between receptive vocabulary breadth and EFL language skills of listening, reading, speaking, and writing based on 42 participants. The authors find that at an advanced level, receptive vocabulary breadth is closely related to writing ($r = .57$) and is moderately linked with reading ($r = .52$), speaking ($r = .49$), and listening ($r = .42$). The two studies show that highlighting receptive vocabulary breadth would be very helpful in developing writing skill.

Secondly, we analyzed the studies on the association between one aspect of L2 lexical knowledge, receptive vocabulary depth, and writing. Atai and Dabbagh (2010) examined the role of receptive vocabulary depth in the writing of 70 lower-intermediate level and upper-intermediate level EFL learners and found that receptive vocabulary depth plays a fundamental role among lower-intermediate learners but not among upper-intermediate learners as well as found that receptive vocabulary depth has an essential role in overall writing proficiency only upper-intermediate learners by t-test. Although this study does not offer data on the correlation between these two variables, it highlights the importance of receptive vocabulary depth in developing L2 writing skills.

Thirdly, we searched the literature on the association between two aspects of L2 lexical knowledge, covering receptive vocabulary breadth and depth, and writing proficiency. Dabbagh and Enayat (2019) ascertained the association between receptive vocabulary breadth/depth and L2 descriptive writing based on 67 English learners. Based on their research results of multiple regression and correlation analyses, the correlation coefficient between receptive vocabulary breadth/depth and L2 descriptive writing is moderately high ($r = .69$) and depth ($r = .73$), although writing belongs to productive language skill.
breadth/depth and writing is the same with $r = .43$. Wu et al. (2019) investigate the role of receptive vocabulary covering breadth and depth and Chinese English beginners’ writing development based on 267 secondary students (120 Grade 8 students and 147 Grade 9 students), and find that receptive vocabulary breadth ($\beta = .28$ for Grade 8; $\beta = .41$ for Grade 9) contributes to writing ability greater than receptive vocabulary depth ($\beta = .22$ for Grade 8; $\beta = .14$ for Grade 9). Therefore, the average value of the two groups is $\beta = .35$ for breadth and $\beta = .18$ for depth. Thus, receptive vocabulary breadth plays a more critical role than receptive vocabulary depth in developing writing skills.

Fourthly, we explored the studies on the association between receptive and productive vocabulary breadth and writing. Karakoç and Köse (2017) examine the role of these two vocabulary dimensions on reading, writing, and general language capability based on 175 EFL learners. The authors find that the correlation between receptive lexicon breadth and reading is $r = .43$. The correlation between productive lexicon depth and writing is $r = .43$ too. They also show a moderate correlation ($r = .65$) between receptive lexicon breadth and general language proficiency and a strong correlation ($r = .83$) between productive lexicon breadth and general language proficiency. Nasir et al. (2017) ascertained the correlation between receptive lexicon breadth and productive lexicon breadth, and general language proficiency based on 136 Malaysia university students and found that receptive vocabulary breadth has a higher correlation with language proficiency than productive vocabulary breadth, such as $r = .52$ for 3000-word frequency level of receptive vocabulary breadth and $r = .43$ for productive vocabulary breadth.

Additionally, we examined the studies on the association between three dimensions of L2 lexical knowledge, including receptive lexicon breadth and depth, productive lexicon breadth, and writing. Kilic (2019) ascertained the association between three dimensions of L2 lexical knowledge, including receptive lexicon breadth and depth, productive lexicon breadth, and writing on 54 Turkish English learners. He found that the correlation between three dimensions and writing is $r = .49$, $r = .39$, and $r = .48$, which indicates both receptive vocabulary breadth and productive vocabulary breadth have a nearly equal effect in writing, while receptive vocabulary depth has a lower impact in writing.

Finally, we examined the studies on the relationship between four dimensions of L2 lexical knowledge: the three aspects mentioned above and productive vocabulary depth, and writing. Choi (2017) investigates the roles of four aspects of lexical knowledge in writing by the mediation of L2 reading of 178 Korean university students and finds that productive lexical knowledge tested by breadth and depth knowledge had a direct role ($\beta = .35$) on writing. Receptive lexical knowledge tested by breadth and depth knowledge was not discovered to have a direct role in writing ($\beta = .13$). In this study, Choi only analyzes the role of both overall receptive lexical knowledge and overall productive lexical knowledge in writing, which is unilateral. Since the four aspects of lexical knowledge have been measured, it is necessary to analyze the correlation of each element with writing.

By checking the related literature above, it is obvious to see that most researchers focus on the effect of one or two aspects of L2 vocabulary knowledge in writing, and few studies concentrate on the role of the four aspects of L2 vocabulary knowledge in writing. Although Choi considered four dimensions of vocabulary in 2016, the respective impact of the four dimensions on writing was not analyzed. Therefore, It is essential to ascertain the relationship between four aspects of L2 lexical knowledge in writing proficiency.
Vocabulary Fluency

Vocabulary fluency is also one dimension of lexical knowledge. Daller et al. (2007) think that vocabulary fluency should belong to the quality of vocabulary knowledge. This leads to a new three-dimension perspective to thinking in language learners’ vocabulary knowledge, which consists of breadth, depth, and fluency. Schmitt (2014) notes the importance of the three-dimensional view because the conceptualization of vocabulary competence has been changed to performance ability which should be language learners’ ultimate goal. Segalowitz and Hulstijn (2005) stress the vital role of vocabulary fluency in different language skills. Thus, it makes sense to study vocabulary dimensions together with vocabulary fluency.

Vocabulary fluency is a crucial factor influencing L2 learners’ performance in various language skills. It is sensible to know that if the speed of word recognition rises, learners can focus their attention on handling higher levels of communication. van Gelderen et al. (2004) show that a positive correlation is found between word recognition speed and reading performance. Schmitt (2010) believes that to communicate smoothly, there is an urgent need to process words quickly enough. Therefore, vocabulary fluency is defined as proficiency in recognizing and retrieving a target word in language use.

When we mention vocabulary learning, the core concept is to command vocabulary size/breadth and depth. However, if learners want to be proficient in language use, vocabulary fluency must play a key role. In other words, lexical fluency acts as a booster in language development. Therefore, it is reasonable in this study that vocabulary fluency is regarded as a mediation variable to affect the relationship between lexical knowledge and writing quality.

Conceptual Framework

Based on the literature mentioned above and our research objective, a research concept framework has been designed (Figure one).

In Figure one, the double arrow between Vocabulary Knowledge (VK) and Language Proficiency (LP) indicates the relationship between these two variables. On the left of vocabulary knowledge, it has two dimensions: breadth and depth, and it also has two aspects: receptivity and productivity. Thus, these four aspects, including receptive vocabulary breadth, receptive vocabulary depth, productive vocabulary breadth, and productive vocabulary depth, are used as independent variables. The dependent variable is writing proficiency on the right of language proficiency. This concept framework is the theoretical basis adopted to establish a structure equation model.
Method
A quantitative research method was used to recruit the participants, collect data, design the research model, and analyze data.

Participants
The participants of the study are 312 sophomore students coming from one Chinese tertiary university in 2022, all of whom were 20 years old and had studied English for at least ten years. Most of the students had a CET4 certificate, which measures the English proficiency of non-English major Chinese university students. The study also included four experienced EFL teachers: one professor, one associate professor, and two lecturers, who served as raters for the vocabulary and writing tests. Two of the teachers had overseas learning experience, and all had almost twenty years of English teaching experience.

Instruments
For this research, five vocabulary measurement instruments were used, and a writing test was conducted to yield relevant research data. All the research instruments were provided in an English version because the participants had a level of English capability sufficient to enable them to understand the measurement instruments. A detailed description of each device is provided below.

Receptive Vocabulary Breadth Measurement Instrument
Based on McLean et al. (2020), meaning-recall can better provide an explanation or justification for language proficiency scores than meaning recognition; therefore, in this research, VLT (meaning recognition test) developed by Schmitt et al. (2001) is adapted to the meaning-recall format. It still includes two thousand, three thousand, five thousand, ten thousand, and academic vocabulary. Each level has 30 items. The target word is addressed in an English sentence, and test takers translate the target word into Chinese. An example is presented below:

The motor can move a car. _____________.
(Please translate the bold and underlined word into Chinese)

Receptive Vocabulary Depth Measurement Instrument
The Receptive Vocabulary Depth Test (VDT) was conducted by using the Word Associate Test (WAT) developed by Read (1998). Generally speaking, it has been regarded by researchers as a proxy of receptive lexicon depth testing instruments. The synonym of calm should be chosen from words on the left side, and the collocation of calm should be found from words on the right side. One example is presented below:

<table>
<thead>
<tr>
<th>calm</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)open (B)quiet (C)smooth (D)tired (E)cloth (F)day (G)light (H)person</td>
</tr>
</tbody>
</table>

Productive Vocabulary Breadth Measurement Instrument
According to Laufer and Goldstein (2004), the form-recall test can better explain the productive language proficiency scores than meaning recognition; therefore, in this research, PLT (meaning recognition test) developed by Laufer and Nation (1999) is adapted to form recall format. It still includes two thousand, three thousand, five thousand, ten thousand, and academic
vocabulary. Each level has 18 items. The target word is presented in Chinese sentences, and test takers translate the target word into English. An example is shown below.

很高我们有机会交谈。opp ________
(Please write one word according to the bold and underlined Chinese phrase, the first three letters have been provided)

**Productive Vocabulary Depth Measurement Instrument**

Since multi-dimension features of vocabulary depth, it is impossible to check all its aspects. The test instrument, Productive Vocabulary Depth Test (PVDT), was used based on the “A Definition Completion Test (DCT)” suggested by Read (1995). The test takers are required to define the target word and make a sentence, a conscious metalinguistic representation used to search for terms in the semantic space of the subject's brain, and test the vocabulary capability of the participants, including word parts, association, collocation, and structure. As addressed in the examples below:

- Communication
- Definition:
- Example:

**Vocabulary Fluency Measurement Instrument**

The Vocabulary fluency measurement instrument (VFT) used in this study was a dictation test about elements of phonetics, morphology, semantics, and pragmatics of lexical knowledge. This instrument was designed based on training methods for retrieving individual words proposed by Snellings et al. (2002), in which the participants need to write the required word or phrase by making use of known vocabulary knowledge with time pressure, resulting in faster vocabulary decision time.

In this dictation testing, participants must listen to a long passage with 80 missing words and write down these missing words when listening.

And there are 80 missing words in one passage, which should be completed in a limited time while listening. The fleeting features of listening reflect the speed of retrieving vocabulary, indicating their vocabulary fluency proficiency is better. For example:

“Welcome to all of you...can everybody see and hear me?...Good...I am Sally, your _____ for this _____ of the Bicentennial Park...I hope that you are all _____ your most _____ _____ and that you can keep up the _____. So, let’s _____ under _____ on our tour around this _____ ______.”

**Writing Proficiency Test**

The writing proficiency test was based on the writing model of IELTS, but we applied only the argument composition to check the participants’ writing ability. The writing ability test selects the second part of academic writing, where the participants must complete an article with at least 250 words in 40 minutes. The topic pattern is the following.

The following topic should be finished in 40 minutes with at least 250 words:

Some experts believe that children should begin learning a foreign language at primary school rather than secondary school. Do the advantages of this outweigh the disadvantages?
Research Procedures

It took nearly a year to conduct this study, from designing research, selecting participants, training examiners, and organizing examinations to data collection, scoring, data analysis, and essay writing.

Data collection

All the tests were arranged to conduct in the lecture halls. The participants had 35 minutes to complete the first and the third vocabulary tests, respectively (receptive and productive lexicon breadth), 30 minutes to finish the second and the fourth (receptive and productive lexicon depth), respectively, and 25 minutes to finish the vocabulary fluency test. Finally, one writing task was completed in 40 minutes.

Scoring

Based on one point per correct word, receptive vocabulary breadth (VLT) has a maximum score of 150 points, including five levels two, three, five, and ten thousand, and academic vocabulary, respectively, with 30 points for each level. Receptive Vocabulary Depth (VDT) has a maximum score of 160 points, including 40 target words, with four points for each target word. Productive Vocabulary Breadth (PLT) has a top score of 90 points, also including five levels like VLT, with 18 points for each level. Vocabulary Fluency (VFT) has a maximum score of 80 points, using four paragraphs with 20 missing words for each paragraph.

The Productive Vocabulary Depth test (PVDT) involved 20 words where the participants must provide a definition and produce a sentence for each word. Each target word has a total of four points, with two points for a definition, and for a sentence respectively. Thus, the total score of PVDT is 80 points. On writing ranking, the total points for the composition are 100 with four categories which are used as holistic scores of the writing tasks: Lexical resource (25%), Task response (25%), Coherence and cohesion (25%), Grammar and accuracy (25%).

Data Analysis

In this study, these four aspects of L2 lexical knowledge are used as exogenous variables, argumentative writing is the endogenous variable, and vocabulary fluency is a mediating variable. The data collected were analyzed by using AMOS 24.0.

Results

Variable Reliability and Validity Test

Variable reliability and validity were checked by Confirmatory Factor Analysis (CFA). In Table One, all un-standard estimated values are shown as positive numbers. Z-values are higher than 1.96 and $P < 0.001$, indicating the research hypotheses are established. All standard estimated values stand for factor loadings which are higher than 0.7, except for two items with almost 0.6; composite reliability is higher than 0.7, and convergence validity is higher than 0.5, except for the writing variable with 0.493, indicating good reliability and validity of all variables.

Table 1: Convergence validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Significance of Estimated Parameter Std.</th>
<th>Item Reliability</th>
<th>Composite Reliability</th>
<th>Convergence Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unstd.</td>
<td>S.E.</td>
<td>Z-value</td>
<td>P</td>
</tr>
</tbody>
</table>

218 Arab World English Journal
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The Role of L2 Vocabulary Knowledge in Writing Proficiency
Tong, Hasim & Halim

<table>
<thead>
<tr>
<th>CONSTRUCTS</th>
<th>AVE</th>
<th>WP</th>
<th>PVDT</th>
<th>VFT</th>
<th>VDT</th>
<th>PLT</th>
<th>VLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP</td>
<td>.493</td>
<td>.702</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVDT</td>
<td>.602</td>
<td>.513</td>
<td>.776</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VFT</td>
<td>.596</td>
<td>.573</td>
<td>.329</td>
<td>.772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VDT</td>
<td>.658</td>
<td>.385</td>
<td>.179</td>
<td>.215</td>
<td>.811</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLT</td>
<td>.626</td>
<td>.470</td>
<td>.243</td>
<td>.321</td>
<td>.146</td>
<td>.791</td>
<td></td>
</tr>
<tr>
<td>VLT</td>
<td>.666</td>
<td>.357</td>
<td>.182</td>
<td>.263</td>
<td>.205</td>
<td>.182</td>
<td>.816</td>
</tr>
</tbody>
</table>

Note: *** stand for $p < 0.001$

In Table two, the discriminant validity is the square root calculations of the average variance extraction AVE and AVE square root in bold are higher than all Pearson Correlation Coefficients, indicating that the study has good discriminating validity.

Table 2: Discriminant validity

After finishing data checking, three research questions are answered by establishing structural equation modeling in the following.
Structural Equation Modeling

Based on the concept framework, a research model is established in Figure Two.

![Figure 2: Research model](image)

The research model is one of the associations between the four aspects of lexicon knowledge and writing capability. In Figure two, productive vocabulary depth has the most substantial effect on writing performance with $\beta = .36$, and productive vocabulary breadth’s effect on writing ranks is second with $\beta = .32$. The contribution of receptive vocabulary depth and breadth to writing proficiency is $\beta = .24$ and $\beta = .19$ respectively. $R^2 = .50$. The meaning of these analysis results will be discussed in the discussion section. In Table Three, the model fit index meets the criteria proposed by scholars ultimately, showing that the SEM hypothesis is reasonable.

Table 3: Model fit

<table>
<thead>
<tr>
<th>Index</th>
<th>Criteria</th>
<th>Model fit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X^2$</td>
<td>lower, better</td>
<td>569.930</td>
<td></td>
</tr>
<tr>
<td>DF</td>
<td>higher, better</td>
<td>199</td>
<td></td>
</tr>
<tr>
<td>$X^2$/DF</td>
<td>lower 5</td>
<td>2.864</td>
<td>excellent</td>
</tr>
<tr>
<td>GFI</td>
<td>higher 0.9</td>
<td>0.849</td>
<td>accept</td>
</tr>
<tr>
<td>AGFI</td>
<td>higher 0.9</td>
<td>0.808</td>
<td>accept</td>
</tr>
<tr>
<td>RMSEA</td>
<td>lower 0.08</td>
<td>0.077</td>
<td>excellent</td>
</tr>
<tr>
<td>SRMR</td>
<td>lower 0.08</td>
<td>0.049</td>
<td>excellent</td>
</tr>
<tr>
<td>CFI</td>
<td>higher 0.9</td>
<td>0.909</td>
<td>excellent</td>
</tr>
<tr>
<td>TLI</td>
<td>higher 0.9</td>
<td>0.895</td>
<td>accept</td>
</tr>
</tbody>
</table>

Note: model fit criterion is proposed by scholars like MacCallum et al. (1996) and Doll et al. (1994).

Mediation Effect

Bootstrapping and Monte Carlo, the most advanced statistical methods in the twenty-first century for checking the indirect effect of the mediation variable, are used to check the mediating impact of vocabulary fluency on the association between four aspects of lexicons, and writing proficiency. In the mediating relationship figures below, four aspects of vocabulary knowledge are
The Role of L2 Vocabulary Knowledge in Writing Proficiency

Tong, Hasim & Halim

independent variables, Writing Proficiency (WP) is the dependent variable, and Vocabulary Fluency (VFT) is the mediation variable.

Verifying the Mediation Role of Vocabulary Fluency (VLT vs. WP)

Based on the non-standard mediation role in Figure three, total effect, direct effect, and indirect effect are calculated by Bootstrapping shown in Table four where the point estimated value of total effect is the sum of that of direct effect with indirect effect, z-value is higher than 1.96, and no zero is included in the confidence interval of Bias-Corrected and Percentile. Therefore, it can be concluded that the mediation role of vocabulary fluency existed when pointing at the relationship between receptive lexicon breadth and writing proficiency.

Figure 3 (non-standard) Mediation role of vocabulary fluency (VLT vs. WP)

Table 4: Mediation effect on the relationship between VLT and WP

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Points Estimate</th>
<th>Product of Coefficients</th>
<th>Bootstrapping</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bias-Corrected 95% CI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct Effects</td>
<td></td>
</tr>
<tr>
<td>VLT→WP</td>
<td>.126</td>
<td>.038</td>
<td>3.316</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indirect Effects</td>
<td></td>
</tr>
</tbody>
</table>

Note: 5000 bootstrapping samples

Figure four shows the standard mediation role of vocabulary fluency; based on the pathway coefficient calculated, the effect of receptive vocabulary breadth on writing has increased from .19 to .22.

Figure 4: (Standard) Mediation role of vocabulary fluency (VLT vs. WP)
Verifying the Mediation Role of Vocabulary Fluency (VDT vs. WP)

Based on the non-standard mediation role in Figure five, total, direct, and indirect effects shown in Table five are calculated by Bootstrapping in which direct effect plus indirect effect is equal to total effect, z-value is higher than 1.96, and no zero is included in 95 percent confidence interval of Bias-Corrected and Percentile. So, the mediation role of lexicon fluency exists for the relationship between receptive vocabulary depth and writing proficiency.

Figure 5: (non-standard) Mediation role of vocabulary fluency (VDT vs. WP)

Table 5: Mediation effect on the relationship between VDT and WP

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Points Estimate</th>
<th>Product of Coefficients</th>
<th>Bootstrapping</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SE</td>
<td>Z</td>
</tr>
<tr>
<td>VDT→WP</td>
<td>.302</td>
<td>.054</td>
<td>5.593</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.046</td>
<td>4.652</td>
</tr>
<tr>
<td>VDT→WP</td>
<td>.088</td>
<td>.030</td>
<td>2.933</td>
</tr>
</tbody>
</table>

Note: 5000 bootstrapping samples

Figure six is the standard mediation role of vocabulary fluency, based on the calculated pathway coefficient: the effect of receptive vocabulary depth on writing has risen from .24 to .27.

Figure 6: (Standard) Mediation role of vocabulary fluency (VDT vs. WP)
Verifying the Mediation Role of Vocabulary Fluency (PLT vs. WP)

Monte Carlo is used to calculate whether or not an indirect effect does exist by using the internet website http://quantpsy.org/medmc/medmc.htm to calculate the confidence interval, as shown in Figure seven, the lower bound is 0.09118, and the upper bound is 0.2459, that is, no “0” is included between the two bounds, indicating that indirect effect exists.

Figure 7: The mediation role of vocabulary fluency (PLT vs. WP)

Based on the standard mediation role in Figure eight, the pathway coefficient of productive vocabulary breadth to writing proficiency is decreased from .32 to .31.

Figure 8: (Standard) Mediation role of vocabulary fluency (PLT vs. WP)

Verifying the Mediation Role of Vocabulary Fluency (PVDT vs. WP)

Monte Carlo is used to calculate whether or not an indirect effect exists. We used http://quantpsy.org/medmc/medmc.htm to calculate the confidence interval as shown in Figure nine, the LL is 0.08579, and the UL is 0.2184, that is, no “0” is included between two bounds, indicating that an indirect effect exists.

Figure 9: The mediation role of vocabulary fluency (PVDT vs. WP)
Based on the standard mediation role in Figure ten, the pathway coefficient of productive vocabulary depth to writing proficiency is still .36.

*Figure 10: (Standard) Mediation role of vocabulary fluency (PVDT vs. WP)*

The mediation role of vocabulary fluency on the association between four aspects of lexicon knowledge and writing ability is verified using Bootstrapping and Monte Carlo methods. The findings indicate that the mediation role of vocabulary fluency occurs. Thus, the answer to RQ3 is achieved.

**Discussion**

This study ascertained the relationship between four aspects of lexical knowledge, as tested by the VLT, VDT, PLT, and PVDT, respectively, with analytic evaluation grades of Chinese University learners’ argument composition, and the mediating role of vocabulary fluency. The predictive effect of overall lexical knowledge on writing proficiency was also examined, as was the individual aspect of lexicon knowledge on writing.

Relating to the first research question, four aspects of lexical knowledge had a varying effect on writing proficiency. The contribution effect of productive vocabulary depth (PVDT) ($\beta = .36$, $p < .001$) and productive vocabulary breadth (PLT) ($\beta = .32$, $p < .001$) on writing proficiency was more robust than that of receptive vocabulary depth (VDT) ($\beta = .24$, $p < .001$) and receptive vocabulary breadth (VLT) ($\beta = .19$, $p < .001$) on writing, which is consistent with the results of Pearson correlation with $r = .51$ for PVDT and writing, $r = .47$ for PLT and writing, $r = .39$ for VDT and writing, $r = .36$ for VLT and writing, and the highest correlation is $r = .57$ for VFT and writing.

From the viewpoint of the importance of vocabulary knowledge in writing, our findings are nearly in line with Choi’s research results in 2017, with ($\beta = .35$) for productive vocabulary knowledge in writing, and ($\beta = .13$) for receptive vocabulary knowledge in writing. However, Choi only analyzes the role of both overall receptive lexical knowledge and overall productive lexical knowledge in writing. However, now that four aspects of vocabulary knowledge are measured, it is necessary to analyze each correlation with writing. Our findings are close to those of Wu et al. (2019), with ($\beta = .28$) for receptive vocabulary breadth in writing in Grade 8 and ($\beta = .41$) for receptive vocabulary breadth in Grade 9, and ($\beta = .22$) for receptive vocabulary depth in writing of Grade 8) and ($\beta = .14$) for receptive vocabulary depth in writing of Grade 9.

From the correlation perspective of vocabulary knowledge and writing, our findings ($r = .47$) on the correlation coefficient between productive vocabulary breadth and writing are close to the results of both Karakoç and Köse (2017), and Nasir et al. (2017) with $r = .43$, and Kilic (2019) with $r = .48$. On the correlation coefficient of receptive vocabulary depth and writing, our finding is $r = .39$ is similar to Kilic’s result (2019) but lower than that of Dabbagh and Enayat (2019) with
As for the most popular receptive vocabulary breadth, our finding is lower than that of Dabbagh and Enayat (2019) with $r = .43$ and Kilic (2019) with $r = .49$, and Miralpeix and Muñoz (2018) with $r = .57$, but far from that of Stæhr (2008a) with $r = .73$.

Additionally, whether receptive or productive, we discovered that the contribution of vocabulary depth to writing is significantly more substantial than that of vocabulary breadth. These research results are partially in line with Varnaseri and Farvardin (2016), who found that the Beta value of vocabulary depth on writing with a high rate ($\beta = .48^{**}$) in comparison to the Beta value of vocabulary breadth ($\beta = .25^{**}$) and partially in line with Choi (2017) who found productive lexical breadth and depth had a direct effect ($\beta = .35^{*}$) on writing and receptive vocabulary breadth and depth was found to have a direct effect on writing ($\beta = .13, p > .05$). The results of the current study confirmed that vocabulary depth as the exogenous variable had a more vital contribution to the endogenous variable, writing proficiency, suggesting that lexicon depth might be the fundamental element of lexical knowledge in writing.

Of course, different research results also existed. Some researchers stressed the importance of vocabulary breadth in writing. For example, Dabbagh and Enayat (2019) found the $\beta$ values of vocabulary breadth and depth on writing tasks were $\beta = .287^{*}$ and $\beta = .281^{*}$, respectively. Although Dabbagh and Enayat themselves declared that lexicon breadth predicted overall scores on the L2 writing more strongly than lexicon depth, the two values differ by only .006, and the gap of .006 is entirely negligible. That is to say, according to Dabbagh and Enayat’s findings, both lexicon breadth and lexicon depth are almost equally → crucial for descriptive writing. Stæhr (2008a) emphasized the importance of vocabulary breadth in writing performance. Miralpeix and Muñoz (2018) showed that vocabulary breadth is closely linked to writing ($\beta = .57$) and is moderately correlated with reading ($\beta = .52$), speaking ($\beta = .49$), and listening ($\beta = .42$), revealing that vocabulary breadth could explain language proficiency to a large extent. In their studies, only one or two aspects of lexical knowledge, such as breadth, or breadth and depth were involved in the measurement of the relationship between lexicon and writing.

A comparison of different researchers’ findings shows that our findings align with the essential features of language, that is, writing is a productive language skill. Therefore, the RQ1 is well answered. Given the findings related to the first research question and subsequent discussion, the conclusion is that all aspects of vocabulary knowledge should be tested concurrently for a comprehensive understanding of the contribution effect of a lexicon in writing. The current study provides empirical support for assessing the impact of four aspects of lexical knowledge on writing as well as generalizing the finding to vocabulary proficiency.

Turning to the RQ2, this study found that four aspects of lexicon knowledge together explained 50 percent of the variance of writing on the one hand, and four individual aspects of lexical knowledge explained respectively the variance of writing on the other hand, namely, VLT (31%), VDT (40%), PLT (42%), and PVDT (44%) after mediating by vocabulary fluency. These findings comply with the results of the first research question, which indicates the predictive power of productive lexicon breadth and depth on participants’ writing performance is more robust than that of receptive lexicon breadth and depth on participants’ writing performance, and the predictive power of vocabulary depth is higher than that of vocabulary breadth. Miralpeix and Muñoz (2018) also revealed that receptive vocabulary size could explain 32 percent of writing proficiency, which was almost consistent with the result of the present study. Also, the research results stressing productive vocabulary knowledge importance in writing are in accordance with Webb (2005),
indicating that productive learning is much more critical than receptive learning in writing tasks. Given the findings, the answer to RQ2 is successfully gained.

The findings of the RQ3 clearly stated that vocabulary fluency had a mediating effect in investigating the association between four aspects of lexical knowledge and writing proficiency on the one hand and multi-regression coefficient $\beta$ values increased after mediating by vocabulary fluency on the other hand. Firstly, based on data shown in Table six and Seven, and Figure seven and nine, no zeros were found in the 95 percent confidence interval between lower and upper bounds. In addition, as shown in Figure four, the regression coefficient increased from $\beta = .19$ to $\beta = .22$, meaning VLT would make a more outstanding contribution to writing based on the mediating of vocabulary fluency. Like VLT, the role of VDT also increased by 3 percent, amounting to $\beta = .27$ (see Figure six). However, for productive vocabulary knowledge, we found no changes in $\beta$ values even though the mediating effect also existed. These findings manifested that training vocabulary fluency plays a booster role in learning lexicons and developing language skills. As Uchihara and Saito (2019) showed, the productive vocabulary grades were moderately correlated with L2 fluency ($r = .34$). Stronger correlations were found (van Gelderen et al., 2004) between predictor variables, including word recognition and lexical retrieval, etc., and writing in L2. Thus, there is no doubt that it is crucial to train vocabulary fluency for developing language proficiency. The answer to RQ3 is affirmative. Since there is no previous literature on the mediation role of vocabulary fluency, no further comparative analysis can be discussed. Therefore, follow-up research will be given consideration.

Compared to previous studies, this research found moderate results. It highlights the importance of different dimensions of L2 vocabulary knowledge on writing ability and suggests that vocabulary knowledge can contribute up to 50% in developing writing proficiency.

Conclusion
Firstly, the current study investigated four aspects of vocabulary knowledge that contribute differently to overall L2 writing scores and found that the most contribution to writing is productive vocabulary depth which is followed by productive lexicon breadth, and then receptive lexicon depth, which is higher than receptive vocabulary breadth. Therefore, it can be summarized that productive lexical knowledge relatively plays a relatively more important role in writing proficiency than receptive vocabulary knowledge. It was also found that overall lexical knowledge can explain a considerable ratio of the variance in L2 learners’ writing proficiency, and four aspects of vocabulary knowledge respectively have a moderate explanatory power or so for the variance of writing. Therefore, it can be summarized that lexical knowledge is key to predicting writing proficiency. In addition, the mediation of vocabulary fluency strengthens the effect of vocabulary knowledge on writing capability, especially receptive vocabulary.

Implications
Some implications can be drawn based on the conclusions of the present study. First, the implications for both language teachers and learners are that they should dialectically select appropriate words to teach and learn for developing the learners’ writing ability rather than taking all the words in the book list to recite. Second, both teachers and students must pay enough attention to the training and improve vocabulary fluency because it is crucial for developing all language skills. Third, the teachers and learners ought to pay much closer attention to other linguistic knowledge concerning writing and accumulate some native and beautiful sentences by
reading many original English works to improve their corresponding lexicon knowledge, which has, after all, a moderate predictive effect in writing. Lastly, writing is inseparable from reading and effectively promotes improving reading ability in the meanwhile.

Limitations

There are some inevitable limitations to this study. First, no analysis was conducted on different word frequency levels of each dimension of vocabulary knowledge in writing, and it needs consideration in future research. Second, all lexicon testing was conducted in the classrooms by written examination because our students have become accustomed to the written test format used for many years. In future studies, a computerized test could be used to evaluate one's lexical knowledge.

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References


Unveiling the Subtle Art of Politeness: An Analysis of Jordanian Educators’ Deployment of Linguistic Strategies in the Official WhatsApp Group

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Abstract
The advent of the digital landscape has significantly transformed the communication practices of educators. Within this evolving context, an intriguing aspect that warrants scholarly investigation is their politeness strategies within official institutional WhatsApp groups. It aims to shed light on the complexities of educators’ interactions in the digital environment by closely examining their linguistic choices. The application of politeness expressions among teachers themselves and in their interactions with superiors proves to be a beneficial strategy for achieving effective communication. Using an ethnographic method, the careful observation of 163 messages shared by 20 teachers in the official WhatsApp groups was conducted over six months. The comprehensive politeness framework proposed by Brown and Levinson (1987) provided the foundation for the discursive analysis, complemented by the insightful perspective of Holmes and Stubbe (2015). This study unravels Jordanian English language teachers' strategic deployment of all four politeness strategies in the official WhatsApp group. Positive politeness emerges as teachers' predominant strategy to cultivate a sense of closeness and maintain harmonious relationships among colleagues and superiors. Interestingly, teachers display heightened awareness of their linguistic choices when addressing leaders, employing positive politeness to convey deference. In contrast, when communicating with colleagues of equal status, they often opt for a more direct and explicit "bald-on-record" approach. It is noteworthy that superiors also exhibit a discerning awareness of their linguistic choices, employing an "off-record" strategy when addressing faculty members. This study has implications for enhancing a supportive work environment for educators by providing insights into effective communication, professional relationships, and positive teaching settings.

Keywords: Discourse, linguistic strategies, English language teachers, Jordanian Educators, WhatsApp, politeness

Introduction

Establishing effective and efficient interactions among teachers poses a significant challenge in communication. Adherence to specific rules is crucial to foster successful communication and maintain relationships in the workplace. Particularly in the Arab world, the concept of politeness holds great importance. Politeness encompasses how individuals express themselves linguistically, taking into account social distance, status, and roles (Richards & Schmidt, 2013).

Communication goes beyond efficiently conveying interests, arguments, or information; it also involves avoiding hurtful remarks and considering others' feelings (Kingwell, 1993). This implies that during communication, speakers focus on the message's content and the manner and strategies employed to ensure comfort and create solidarity and intimacy among the participants. Kind expressions and the use of politeness strategies are crucial elements in achieving effective communication.

Within the Jordanian context, Soudi and Rashid (2021) argue that impolite behavior within specific societal boundaries does not always lead to negative consequences. It can sometimes demonstrate a polite tendency, particularly in close and intimate relationships, suggesting that disagreement in interactions among speakers in Jordan is not inherently face-threatening.

While studies on politeness have been conducted within online communities, focusing on preserving and maintaining relationships (e.g., Maros & Rosli, 2017; Mulyono et al., 2019; Gervasio & Ireri, 2019; Mahmud, 2019; Santoso & Indriani, 2021; Hafid et al., 2022), the emphasis has primarily been on politeness strategies between students or between teachers and their students. Consequently, there remains a significant gap in understanding the politeness strategies enacted among teachers and their interactions with authority figures online. This research seeks to address this gap, as it can potentially improve working conditions and relationships among teachers within the educational field.

The research questions addressed in this study are as follows:

1. What politeness strategies do Jordanian teachers employ in the official WhatsApp group?
2. How do Jordanian teachers enact these politeness strategies within the official WhatsApp group?

Accordingly, this study examines the usage of politeness strategies by Jordanian English language teachers through an analysis of the posts in the official WhatsApp groups.

Literature Review

Politeness Theory

The theory of politeness focuses on preserving individuals' public self-image (known as "face"). This involves avoiding Face Threatening Acts (FTAs) that could cause offense. Interlocutors use strategies to minimize threats, including four politeness types: bald-on-record, positive politeness, negative politeness, and off-record (Brown & Levinson, 1987).

**Figure 1. Brown and Levinson’s Politeness Strategies (1987) P.60**

Bald-on-record communication refers to direct and straightforward expressions of intention without any redressive action, such as saying "Be careful!" or "Come here" (Brown & Levinson, 1987). However, bald-on-record communication encompasses positive and negative politeness when redressive action is included. Positive politeness aims to save the hearer's positive face by fostering closeness, appealing to friendship, and establishing common ground. It treats the hearer as a group member (Bengsch, 2010). On the other hand, negative politeness emphasizes distance and circumspection, seeking to avoid intruding on others' territory by apologizing and using hedging to avoid imposing on the hearer (Brown & Levinson, 1987).

An additional tactic involves the off-the-record method, in which communicators employ insinuations, indications, and vague statements to indirectly express their intended message (Brown & Levinson, 1987). As per Brown and Levinson's theory of politeness, people have both a favorable aspect/ positive face (the wish to be appreciated) and an unfavorable aspect/ negative face (the wish for independence). Face concerns play a significant role in communication, and people employ various strategies to mitigate face-threatening acts, influencing the listener's self-image positively or negatively (Katz, 2015).

Politeness practices are influenced by linguistic, religious, and cultural factors (Mahmud, 2019; Zander, 2013). Speakers can choose the level of politeness in their utterances (Coulmas, 2006). Leech (1983) proposed six maxims of politeness: tact, generosity, approbation, modesty, agreement, and sympathy. Choosing the right way to be courteous relies on elements like the speaker's understanding of different cultures, their range of languages, and various social factors (Celce-Murcia et al., 1995). Demonstrating politeness involves safeguarding both the speaker's and the listener's image through suitable language and proper customs.

Positive politeness strategies outlined by Brown and Levinson (1987) included paying attention to the addressees' interests, needs, and wants, intensifying their interests, seeking
agreement, avoiding disagreement, showing exaggerated interest, and sympathizing with them.

Holmes and Stubbe (2015) researched workplace communication, focusing on the dynamics of power and politeness. They explored how individuals navigate workplace demands while maintaining collegial relationships. Different forms of communication within the workplace, such as offering guidance and directives, conducting meetings, and reaching conclusions, were investigated, alongside the significance of humor and camaraderie in the work environment. The study emphasized balancing social distance and collegiality while meeting task requirements.

In the Arab context, Farrag (2022) noted that social power impacts request and apology strategies among Saudi faculty. Older faculty members use longer sentences to balance their social power and preserve face in requests. Younger members use complex sentences for apologies, showing more respect than older colleagues. Elasfar et al. (2022) studied English apologies and requests among Arab postgraduate students, citing cultural and linguistic challenges. Pragmatic competence is vital due to communication issues stemming from language gaps. Apologies and requests have teaching and socio-cultural implications. Abdulateef and Abd Ali (2023) explored Iraqi students' discursive awareness tied to pragmatic competence. Student answers reveal diverse levels of understanding, influenced by regions and society. While they grasp certain aspects, challenges arise in complex situations. Shared experiences lead to similar discourse awareness, adaptable based on context.

In Jordan, Alanazi et al. (2023) examined advice-giving among Jordanian and British speakers, considering strategies, gender, and politeness. Jordanians offer direct advice, while the British use subtler approaches, even more so with instructors. Politeness is crucial across these observations. Abdelhady and Alkinj (2023) studied how American and Jordanian students navigate email interactions, highlighting American students' indirectness due to politeness strategies. Incorporating cross-cultural communication guidance in language courses is important to teach politeness in foreign languages.

**Politeness and Pragmatics**

As Amilia et al. (2022) noted, pragmatics investigates the relationship between language and its context, with a particular focus on the social context. The social context emerges from the interactions among community members within a specific social and cultural society (Supriadi, 2020). It deals with the rules governing language use in our social contexts and how to make it acceptable to others (Bowen et al., 2020). Pragmatics is also linked to speakers' communicative competence (Traugott & Pratt, 1980), as individuals need to understand the rules that govern a language community to be accepted, including the appropriate use of language functions.

According to Pratiwi and Anindyarini (2021), politeness is closely associated with a person's attitude's correct and incorrect aspects. It can be expressed in various ways, such as using specific pronouns in a conversation. In Jordanian culture, for example, the plural second pronoun is used to address a person of honor or high position.

Pragmatics and the concept of politeness are intricately connected. Brown and Levinson (1978) categorized four levels of politeness strategy. The least polite strategy is used with close friends, while the somewhat polite method is employed with friends who are not yet familiar. The more polite strategy is utilized with individuals who are not yet known, and the most polite strategy is reserved for people of higher social status. Pratiwi and Anindyarini (2021) have recently
expanded the theory by associating the four linguistic strategies with three pragmatic parameters. These factors encompass the extent of interpersonal space, which concerns the degree of familiarity or proximity between the speaker and the listener, the degree of societal standing, which relates to the comparative social positions of the speaker and the listener, and the level of speech act hierarchy, which establishes the significance or severity of the speech act. These pragmatic parameters can explain the variations in the use of politeness strategies across different social contexts. For example, the level of social distance influences the choice of a more or less formal style of speech, the level of social status determines the use of honorifics or titles, and the level of speech act ranking determines the required level of politeness and formality in the speech act.

Another research endeavor conducted by Oraby (2020) delved into the traditional norms governing the dispensation and solicitation of offers and invitations within the milieu of Arab culture, with specific emphasis on the societal framework of Jordan. Employing a discursive methodology, this investigation meticulously scrutinized the sociolinguistic and pragmatic constituents, centering its attention on the intricate nuances of politeness paradigms. Through a comprehensive analysis, this inquiry successfully delineated recurrent behavioral motifs, linguistic strategies, and the developmental trajectory characterizing sequences of invitations. Significantly, a discernible differentiation between authentic and superficial invitations or offers was established.

Recent Studies on Politeness Strategies in WhatsApp Conversation

Various recent studies have focused on examining the utilization of politeness strategies in online communities through the WhatsApp application. For instance, Santoso and Indriani (2021) conducted a survey investigating WhatsApp conversations between students and teachers during English learning activities at the al-Lutfah Islamic school in Indonesia. The study used observation as a data collection method and found that students employed various forms of politeness, such as greetings, gratitude, questions, and expressing opinions when responding to statements in the WhatsApp group.

In the study conducted by Zahra et al. (2023), an investigation was undertaken to analyze the politeness strategies employed by undergraduate students within the context of WhatsApp Groups. The outcomes of the research revealed the presence of four discernible politeness techniques among the cohort of college students. Notably, the application of positive politeness strategies surfaced prominently, underscoring the establishment of robust interpersonal connections among peers through the articulation of complimentary remarks and the conveyance of appreciative sentiments. This approach effectively functions as a mechanism for acknowledging and expressing gratitude towards fellow students.

Hafid et al. (2022) investigated the use of teenagers' politeness strategies in social media conversations within WhatsApp groups of junior high schools, senior high schools, and colleges. The study revealed that participants utilized three types of politeness strategies: 1) bald-on-record, which included questions, commands, and requests; 2) positive strategies, such as jokes, identity expression, and paying attention; and 3) negative strategies, including offering apologies, expressing gratitude, and asking questions. Furthermore, the research discovered that the extent of education had an impact on how adolescents utilized politeness techniques on social media. Teachers exhibited a greater interest in the language politeness strategies of their students to encourage positive and congruous exchanges.
Pasaribu and colleagues (2022) investigated the utilization of politeness strategies within WhatsApp groups for thesis consultations among both instructors and students. The results revealed notable variations in the politeness strategies deployed by instructors and students. The lecturer predominantly used a bald-on-record method (30%) focusing on imperative sentences, while students tended to utilize positive politeness strategies (23%), with greetings being the most frequent. These differences in behavior stemmed from the varying power dynamics and social status between lecturers and students. Additionally, non-verbal signals, like emoticons, contributed to upholding favorable communication between students and instructors through WhatsApp.

Algiovan (2022) investigated the use of politeness strategies in the interaction between lecturers and post-graduates at a university in Lampung through virtual communication: WhatsApp and E-mail. The study revealed that the positive politeness strategy was mostly used by Indonesian students, whereas the lecturer mostly utilized the bald-on-record technique. The study also indicated that various elements were thought to impact the utilization of politeness tactics, including factors like authority, organizational role, interpersonal closeness, age, and societal norms. Shalihah and Winarsih (2023) examined the ethical aspects of lecturers' responses to students' text messages using the WhatsApp application in an Indonesian university. They investigated breaches of etiquette norms in brief messages sent from the instructor to the students. Based on the initial investigation of the findings, there remain many brief exchanges between educators and pupils that fall short of meeting expected levels of politeness. The aspect of politeness remains unaddressed due to the utilization of slang, impolite methods of conveying thoughts, or improper linguistic elements.

Halil (2021) discovered that communication between lecturers and students via WhatsApp adhered to the principles of linguistic politeness in interaction discourse. Both students and lecturers demonstrated linguistic politeness principles, including wisdom, generosity, simplicity, compatibility, appreciation, and sympathy. However, Halil noted that there were still instances of politeness principle violations.

Farida and Yuliana (2019) examined the politeness strategies employed by Sundanese students when communicating with their lecturers through WhatsApp chat messages at a university in Bandung. The study revealed that students used all four politeness strategies, with negative politeness being the most frequently used and bald-on-record being the least frequent. The findings also highlighted the students' awareness of status differences and the asymmetrical power relations with their lecturers.

Yulandari (2022) investigated male students' linguistic politeness strategies in WhatsApp group conversations and found that they tended to employ blunt and positive politeness strategies. Conversely, within graduate circles, males exhibited a preference for employing both positive and negative politeness techniques. The research proposed that individuals of advanced age tend to adopt a more careful and courteous approach to their language.

Although the studies mentioned above have shed light on the use of politeness strategies in WhatsApp groups among learners, they did not explore the application of politeness strategies among Jordanian teachers themselves in online contexts. Therefore, this current study aims to investigate how Jordanian teachers utilize politeness strategies in official WhatsApp groups.
Method

An ethnographic approach was chosen for this study based on its ability to observe natural human behavior through personal contact in situ rather than artificially arranging experimental observations (Hammersley, 1990). The participation of teachers in social media as part of their daily routines presents an excellent opportunity to employ an ethnographic approach. Creating an artificial WhatsApp Group and asking teachers to interact with each other would be highly limiting. Instead, the study analyzed conversations occurring naturally in teachers' daily routines.

Participants

Purposive sampling was employed, which involves selecting an official Whatsapp Group of participants with specific characteristics relevant to the research interest, as recommended by Foley (2018). The participants were drawn from a single Jordanian university and deemed suitable to provide insights into the phenomenon being investigated. This sample was selected because they are representative of the population due to their characteristics as Jordanian educators who joined the official WhatsApp groups.

The official WhatsApp group comprises 20 English language teachers, with ages ranging from 26 to 54. Seven participants are male, while 13 are female. The data from the posts and messages exchanged among the teachers were observed.

Research Instruments

The process of observation in this study was vital for delving into the creation of transcripts that faithfully mirrored the interactions within the WhatsApp groups. The first author acknowledged that initially, the participants might alter their behavior and responses in response to the observer's presence. However, as the observation progressed, the observer's impact gradually diminished.

Research Procedures

The data from the posts and messages exchanged in the WhatsApp group among the teachers were observed. Subsequently, the messages were transcribed by copying them into Microsoft Word files to facilitate data analysis. The date and time of these messages were also recorded. Data generation spanned the entire six-month period of participant observation, covering one full academic semester in Jordan.

Of 163 observed postings, 60 were discarded, and 103 were considered relevant to the study's focus on politeness. The selected data were then analyzed to explore the politeness strategies employed. The analysis was conducted using the framework of politeness strategies proposed by Brown and Levinson (1987) and the perspective of Holmes and Stubbe (2015).

Findings

This section will delve into specific excerpts from the messages exchanged among the teachers in the official WhatsApp groups. It is important to note that this group comprises the head of the English department and the English language teachers, and its primary purpose is to address work-related matters.

To provide a comprehensive overview of the politeness strategies employed by the
teachers, we present Table One, which showcases the percentages of each strategy's utilization. Table 1. Percentages of Politeness Strategies employed by Jordanian teachers in the official WhatsApp

<table>
<thead>
<tr>
<th>Politeness Strategy</th>
<th>Frequency</th>
<th>Percentage%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Politeness</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>Negative Politeness</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>Bald-on-Record</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Off-Record</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

Of the total 163 postings observed in the official WhatsApp group, a subset of 103 postings was deemed relevant to the examination of politeness strategies and considered applicable for the analysis of techniques related to politeness. Notably, the findings highlight the prevalence of positive politeness as the most commonly employed strategy, accounting for 44% (n=45) of the relevant postings. Following closely, the negative politeness method was employed in 31% (n=32) of the observed data. The bald-on-record strategy ranked third with a utilization rate of 15% (n=16), while the off-record strategy represented the least utilized approach at 9% (n=10).

To illustrate the application of a negative politeness strategy, Extract One provides an example. In this instance, the head of the department employs a negative politeness strategy by requesting the faculty members, asking them to send their schedules as soft copies.

Extract One (WhatsAppposts)

1 [1:36 PM, 6/9/2019] Rawan: Respected Members. All of you please send me your schedule as a soft copy. I need it TODAY before 4:00 pm. Hope that you won’t be late.

In her message, Rawan demonstrated her awareness of employing politeness strategies by using the greeting form Respected members as an introductory gesture (line one). Furthermore, she utilized the polite expression please (line one) when issuing a direct command using the imperative verb send. Despite her directness in delivering the command, her use of a negative politeness strategy indicated her acknowledgment of status differences (Holmes, 2013). Rawan appeared to be mindful of her role and position as the head of the department when giving orders to the faculty members.

Although she conveyed a sense of strictness by emphasizing the word TODAY in capital letters (line 1) to emphasize the importance of timely schedule submission, she mitigated the force of her command indirectly by employing attenuating devices such as using Hope and need. This finding aligns with the observations made by Holmes and Stubbe (2015), who noted that power differentials are downplayed, and politeness takes precedence in interactions within white-collar workplaces. They further asserted that imperative directives are commonly employed in such contexts, particularly when issuing routine tasks using declarative forms of explicit directions like want or need.

Moving on to Extract Two, it exemplifies the utilization of a positive politeness strategy. In this instance, Rawan employed a directive act as an invitation, inviting the faculty members to
Unveiling the Subtle Art of Politeness: An Analysis of Jordanian Educators’

Rawan initiated her message in Arabic and then switched to English. She began with the phrase "اسعد الله أوقاتكم بكل الخير" (line 1), which translates to "May God bless your times with all goodness." This opening phrase facilitated the transition from non-interaction to interaction among the interlocutors, easing any awkwardness before delivering commands and directives (Laver, 1975). Rawan employed inter-sentential code-switching that occurs outside of the sentence (Poplack, 1980; Wei et al., 2000). By using their mother tongue Arabic, which arguably carries more weight and attracts the faculty members' attention, Rawan employed a relational strategy that served an effective function. She wished her faculty members a happy and blessed time, demonstrating her aim to maintain rapport and solidarity with them. As Tannen (1995) posits, "Through ways of speaking, we signal – and create – the relative status of speakers and their level of rapport" (p. 4).

Such discursive behavior fosters solidarity and intimacy while politely inviting the members to the workshop. As noted by Spencer-Oatey (2000), politeness towards subordinates can indicate that the more powerful individual seeks to foster good workplace relations and maintain or develop collegial rapport. Politeness can also be viewed as a means of promoting cooperation, thus aiding in achieving workplace goals (Watts, 2003; Eelen, 2001). Therefore, Rawan's polite invitation can be seen as an indication of fulfilling both the transactional and affective functions. As Holmes and Stubbe (2015) highlighted, workplace interactions are deeply embedded in the business and social context.

Subsequently, Rawan capitalized the determiner ALL to emphasize that every faculty member should attend the workshop. However, it was not presented as a command as she used the signaling word or hedge kindly (line 1) to indicate a less demanding invitation and maintain politeness. As discussed by Manipuspika et al. (2019), employing linguistic features that are less face-threatening to the recipient through indirectness is a common strategy for making a request. Despite Rawan's authority to issue orders and instructions, she opted for a coordinated approach by encouraging and facilitating combined task completion. Ng and Bradac (1993) distinguish between the expression of collaborative power, "power to," and coercive power, "power over" (p. 4).

The faculty members responded politely to the head of the department, saying their admiration and willingness to attend the workshop. They conveyed their praise and respect through cooperative and polite engagement. For instance, in line two, Summayah promptly responded to Rawan's invitation, expressing her admiration for the workshop's topic. Remas also responded, expressing her desire to attend, while Ahmad recognized the potential benefits of the workshop based on its topic. Summayah, Remas, and Ahmad employed a positive politeness strategy by offering praise and compliments.
Moving on to Extract Three, it presents another example of employing a positive politeness strategy when sharing academic information among faculty members. Laith, a faculty member, shared a guideline form regarding academic regulation and supervision.

Extract Three: (WhatsAppposts)
1 [5:19PM,26/8/2019]Laith: Assalamu’alaikum
The Model above is academic regulation for our university
It will help you with academic supervision

Laith mentioned that the model would benefit the faculty members in their academic supervision (line one). Laith initiated his message with the polite greeting Assalamu’alaikum (line 1), which is a formal and religious greeting that demonstrates respect for others. Greetings and closings adhere to social norms and play a significant role in human interaction. Based on his use of this greeting, it can be inferred that Laith was mindful of avoiding missteps and showed consideration for Islamic greetings. This polite linguistic behavior indicates his adherence to formalities and religious teachings. Additionally, he used the pronoun our to convey a strong sense of belonging to the university, reflecting his commitment to being an integral part of the community and fostering closeness with his colleagues through the sharing of academic information.

In essence, Laith made a positive impression on the other members and portrayed himself as a helpful, polite, and religious individual, recognizing the importance of using appropriate language in an official group. This can be seen as applying the ‘exemplification’ strategy (Jones & Pittman, 1982) to convey a positive image of himself.

Moving on to Extract Four, it presents an example of employing both a negative and a positive politeness strategy when a faculty member offers advice to his colleagues.

Extract Four: (WhatsAppposts)
1 [7:19 PM, 18/12/2019] Issam: Dear colleagues
Thank you for sending your emails.
I sent the recent quality requirements.
2 However, There are a few members haven’t sent their email yet. Please send it urgently for work sake.
I understand that some of you are facing technical problems with your UNI.
emails.
3 However, it’s better to fix it for your sake.
If there is a problem you need to report it or inform those who are responsible
4 If you stay still, no one will know about it.

[7:21 PM, 18/12/2019] Manar: Sure ... Having your university email fixed will facilitate sending out emails as a group. Last time I tried to create a group instead of writing each email individually, but I couldn’t because Some of you use personal emails.

In this extract, Issam began his message with the kind and respectful greeting expression Dear colleague, demonstrating his benevolence and respect for his colleagues. He also expressed gratitude for their emails, indicating his polite and appreciative attitude towards them. The utilization of negative politeness strategies encompasses various phases or expressions, such as
expressing gratitude, offering apologies, and posing questions (Hafid et al., 2022).

Issam noted that some members had not sent their emails and politely requested them to do so using the word *please*. Furthermore, he provided an explanation or justification for their issue, attributing it to technical problems. It can be observed that he employed expressions such as *I understand, it's better*, and *you need to* (line three), indicating that he did not directly instruct or command them to resolve the problem. Instead, he employed mitigated linguistic forms and utilized a positive politeness strategy. As emphasized by Holmes and Stubbe (2015), employing epistemic devices to mitigate directives, such as using modelized forms, justifications, explanations, and hesitation, exemplifies the negotiation of directive forms. Additionally, Issam's advice included explanations and suggestions, aiming to guide the members toward the desired goal.

Another member of the group responded to Issam's message and agreed with his advice. She mentioned that using the university email facilitated sending emails to all the members as a group. Additionally, she shared that she faced difficulties creating a group for sending emails due to some faculty members using their personal emails. While she did not explicitly use polite expressions, the overall tone of her message conveyed courtesy and respect. She explained and highlighted the benefits of solving the problem. Furthermore, she mentioned a specific situation she encountered personally, indicating her concern for the university.

Therefore, Issam and Manar were considerate in delivering their advice in a manner that was motivating and encouraging rather than ordering or insulting. It was evident that they were aware of their status, which was not higher than that of their colleagues. As emphasized by Holmes and Stubbe (2015), superiors have the authority to give orders and imperatives. Still, when directives are issued between colleagues, they must be carefully and tactfully formulated to avoid any offensive behavior. Issam and Manar demonstrated their awareness of the linguistic and pragmatic aspects by framing their request as advice. Thus, when requesting a coworker at a similar level in the institutional hierarchy to do something, it is essential to consider politeness factors. Equals or near equals manage interactions carefully to protect the recipient's face and establish agreement on responsibilities or tasks. Most importantly, they aim to foster a harmonious and compatible relationship.

Moving on to Extract Five, it exemplifies how most faculty members used kind and polite words to express their congratulations and best wishes to the head of the department on his new position as a vice dean. The faculty members in the official WhatsApp group were observed to compete in sharing personal wishes for their boss, with most congratulating him within the first hour, indicating their joy and happiness for him. As Brown and Levinson (1987) highlighted, some positive politeness strategies involve showing an exaggerated interest and expressing sympathy towards others.

Manar expressed her heartfelt congratulations and wished for him to achieve even higher positions, using Arabic to convey her best wishes. As noted by Hasanain et al. (2014), using the English equivalent for congratulating or sharing wishes may not consistently carry the same emotional or cultural connotations.

Extract Five (WhatsAppposts)

1   [9:07 PM, 21/8/2019] Manar: ألف مبروك دكتور... وعساك عن القوة يا ربك ومنها للاعلى
Unveiling the Subtle Art of Politeness: An Analysis of Jordanian Educators’

(Thousand congratulations doctor... I wish you strength and good health and always achieve the highest positions)

2 [9:08 PM, 21/8/2019] Summayah: ما شاءالله بشرونا (God wills... tell us the good news)

3 [9:08 PM, 21/8/2019] Manar: Hadi has got a new position

4 [9:09 PM, 21/8/2019] Manar: Now he is the new vice dean of our college

(ohh God wills... I hope you achieve the highest positions)

5 [9:09 PM, 21/8/2019] Summayah: ماشااالله ببارك لك يا رب (God wills... God bless you)

6 [9:09 PM, 21/8/2019] Abdullah: مبرووووك ألف مبرووووك (Congratulations ...A thousand congratulations)

7 [9:10 PM, 21/8/2019] Hadeel: ما شاء الله مبارك د. هادي أعانك الله ووفقّ على درب الخير خطاك (God wills congratulation Dr.Hadi, may God help you and grant you the path of goodness)

8 [9:10 PM, 21/8/2019] Fadwa: Wow! Masha Allah !! Congratulations


10 [9:12 PM, 21/8/2019] Summayah: Masha Allah .. !! Alf mabrook .. All prayers for many more to come

11 [9:15 PM, 21/8/2019] Remas: Alf Mubarak yarab ... really we are so happy 😊

12 [9:29 PM, 21/8/2019] Ahmad: ما شاء الله ألف مبروك وعقبال أعلى المناصب وبالتوقيق (God wills, A thousand congratulations and may you get the highest positions and good luck)


14 [9:46 PM, 21/8/2019] Ali: Congratulations Dr Hadi, we are so happy for you ❤️


16 [9:55 PM, 21/8/2019] Nida’a: Alf AlfMabrook Dr Hadi


19 [10:47 PM, 21/8/2019] Kawthar: The speed of the team depends on the pace of leader. Thanks for being a leader with human touch! Hearty Congratulations

20 [11:03 PM, 21/8/2019] Issam: ماشاءالله لا قوة الا بالله ألف مبروك تكذوكل على المناصب الجديد وعساك عالقفوه
Summayah immediately asked Manar about the congratulatory wishes, using three question marks to convey her eagerness and desire to be among the first to congratulate and demonstrate her joy and happiness. After Manar responded, Anhar promptly congratulated Hadi, starting her message with the interjection of Ohh to express her astonishment and delight and satisfaction with the good and surprising news. She also wished for him to achieve higher positions. Following Anhar, Samah and Abdullah congratulated Hadi, followed by Hadeel who prayed to Allah for his guidance and success in his new position. Within approximately two minutes, three more members, Fadwa, Rawan, and Summayah, congratulated Hadi and wished him luck in his new role, using the interjection Masha Allah to express their joy and admiration. It was evident that most faculty members addressed Hadi with the honorific form Dr as a sign of respect and appreciation, demonstrating their awareness of the status difference and employing a negative politeness strategy.

Many members spontaneously code-switched from English to Arabic, naturally and unconsciously using their mother tongue to deeply express their emotions and feelings. In doing so, they sought solidarity and strengthened rapport with their vice-dean. The faculty members displayed high happiness, almost competing to offer the best compliments. For instance, Kawthar thanked Hadi for his leadership and humanity, choosing a proverbial expression as if crafting a poem.

The members' expressions of congratulations aimed to avoid any misbehavior or disrespect. Failing to offer wishes may have been interpreted as jealousy or envy. Therefore, all the members sought to maintain and develop their relationship with the new vice-dean using polite and kind words. The positive politeness strategies proposed by Brown and Levinson (1987) were predominantly employed, as the interlocutors aimed to preserve their relationships, particularly with their superiors.

Extract Five also reveals that some faculty members used emojis to convey their emotions. As highlighted by Pasaribu et al. (2022), the use of non-verbal language, such as emoticons, is part of politeness strategies to maintain positive and amicable interactions.

Moving on to Extract Six, it exemplifies the utilization of both negative and positive politeness strategies among the faculty members. Hadi initiated the message to express gratitude for the party arranged by his colleagues. He began interacting with the expression Dear colleagues (line one), addressing the members as if writing a formal letter or email. Furthermore, he employed formal and polite language to convey his deep appreciation, using phrases like great pleasure, appreciate, and courtesy. Hadi concluded the message with Sincerely yours, a format commonly used in formal letters. He referred to himself with the honorific Dr thus preserving his status and high position. Although Hadi sent this message to express his gratitude to the faculty members, it was evident that he employed a negative politeness strategy by maintaining a respectful distance and adopting a formal tone (Brown & Levinson, 1987).
Issam promptly responded to Hadi and complimented him, referring to his actions that inspired all the members to develop and improve themselves. Sharing compliments and using kind words are considered polite attitudes toward others. Holmes (2013) explains that individuals exchange compliments in their daily lives for various reasons, such as praising each other or responding to received compliments as a form of respect and politeness.

Issam expressed that he and his colleagues had a great time, complimenting his vice-dean and using phatic expressions to demonstrate love and respect. Herbert (1986) emphasizes that compliments are phatic expressions that strengthen connections and relationships by exchanging polite words. As depicted in Extract 6, the faculty members focused solely on thanking and complimenting their boss. For instance, Fadwa prayed to Allah to bless Hadi with success and happiness, employing a negative politeness strategy by using the title Dr. to maintain distance and show respect, thereby avoiding imposition on both interlocutors (Brown & Levinson, 1987).

Furthermore, Laith expressed gratitude to Allah for providing him with a good and admirable manager. Summayah, on the other hand, conveyed her thankfulness by using the expression hats off to display deep admiration and utmost respect for Hadi's polite demeanor, courtesy, and generosity. Additionally, Remas praised Hadi's personality and character, highlighting his wisdom, modesty, and thoughts. Ahmad also thanked Hadi for his kindness,
wisdom, and modesty, as they had learned valuable qualities from him.

It was evident that these members complimented their vice-dean using various polite and praising expressions, aiming to maintain and preserve their relationship with their boss. The faculty members sought to develop rapport and solidarity with their boss through kind words and compliments, emphasizing comfort and pleasure. Holmes (2013) asserts that kind words and compliments are expressed to foster solidarity and bridge any gaps that may arise. They also aim to make people feel at ease and satisfied.

In this extract, it was observed that the members communicated with their boss politely, exhibiting high respect in their linguistic behavior. Alqarni (2017) suggests that sharing kind expressions and compliments may be prompted by a desire to maintain a harmonious relationship, uphold face, or adhere to social protocols. As noted by Brown and Levinson (1987), speakers consider the face wants of others and strive to satisfy them.

Moving on to Extract Seven, it illustrates how the head of the department employs an off-record strategy and a negative politeness strategy. Rawan sent a message to the faculty members, instructing them to adhere to the instructions and university rules. She began the message by greeting the faculty members with "Good morning" (line One), employing a respectful, polite, and formal greeting.

Extract Seven (WhatsAppposts)

1   [7:56 am, 12/24/2019]Rawan:Good morning
    As I notice while I was roaming some of you were busy with their smart phones
    sitting nicely in table in the exam hall which is prohibited
2   Please stick to the rules

After greeting them, Rawan stated that some teachers were busy with their phones during exams. It can be observed that her message was delivered sarcastically when she described the teachers' phones were sitting nicely on the table(line 1). She criticizes the teachers' behavior and then proceeds with her message, informing them that such an attitude is prohibited.

Before asking them to adhere to the rules and fulfill their duties properly, Rawan employed an off-record strategy by describing the situation ironically. This politeness strategy involves being indirect and vague to convey the message subtly. Furthermore, despite Rawan's authority and power to give instructions and commands to the faculty members, she utilized a negative politeness strategy and used the expression please stick to the rules in bold font to emphasize her directive and ensure compliance within the department.

Moving on to Extract Eight, it presents an example of employing a positive and bald-on politeness strategy. The message sent by Fadwa introduced the topic by offering advice to the faculty members on how to handle filling in the files. The use of the pronoun we (line One) can invoke a collective identity or a sense of group membership (Bramley, 2001). Karapetjana (2011) notes that the pronoun we is employed to create a sense of collectivity, shared responsibility, and audience inclusion. Consequently, this strategy represents a positive politeness approach aimed at preserving the positive face of the recipients by treating them as group members, ensuring that the face-threatening act (FTA) is not perceived as a negative evaluation of their face (Bengsch, 2010).

Thus, Fadwa protected her colleagues' positive face by demonstrating closeness, maintaining friendship, and establishing common ground.
Extract Eight (WhatsAppposts)

1. [12:50 am, 1/1/2020] Fadwa: For some sections we can write: yet to receive enlightenment from Quality Unit and finish
2. [12:51 am, 1/1/2020] Fadwa: Else...it will be incomplete
3. [12:54 am, 1/1/2020] Manar: Ladies just write what you can write
4. [12:54 am, 1/1/2020] Manar: Leave the other things empty
5. [12:55 am, 1/1/2020] Manar: Just try to fill inasmuch data as possible
6. [12:55 am, 1/1/2020] Fadwa: Okay

Then, Manar sent a message regarding the same topic and expressed her opinion. She suggested to her colleagues that they write and fill in the files with the information they know, leaving the other parts empty. It is important to note that Manar's advice differed from Fadwa's suggestion, as she did not develop or expand on Fadwa's advice. Despite the difference in their suggestions, Manar did not accuse Fadwa of providing the wrong advice. Instead, she maintained a polite and kind tone by offering her idea and incorporating hedging or softening words such as Ladies and just (line three) to mitigate and soften the advice.

Furthermore, it can be observed that Manar used a direct verb form when addressing her colleagues. This represents a bald-on-record politeness strategy, where the speaker directly and explicitly addresses the hearer to express their needs. As described by Brown and Levinson (1987), being baldly on record means "doing it in the most direct, clear, unambiguous, and concise way possible" (p. 69). In this context, the bald-on-record strategy is employed because Manar addresses her colleagues with the same status, allowing for direct communication. Fadwa then engaged with Manar's suggestion and agreed with her message. Seeking agreement and avoiding disputes are sub-strategies of the positive politeness strategy (Brown & Levinson, 1987). Fadwa and Manar were considerate in delivering their advice in a manner that would not carry disrespectful or insulting connotations, but rather foster involvement and politeness. Hence, it is evident that they were aware of their status, which was not higher than that of their colleagues. According to Holmes and Stubbe (2015), when giving directives or advice from one colleague to another, it is crucial to phrase them carefully to avoid offensive behavior. Therefore, Fadwa and Manar demonstrated their awareness of communication's linguistic and pragmatic aspects. The choice of appropriate linguistic forms is influenced by variables such as the status and the context in which the interaction occurs.

Discussion

This study delved into the fascinating realm of politeness strategies employed by Jordanian English language teachers in their official WhatsApp group. The researchers discovered that these teachers utilized all four politeness strategies identified by Brown and Levinson (1987): positive politeness, negative politeness, bald-on-record, and off-record strategy. Among these, positive politeness emerged as the most frequently used strategy, indicating a solid emphasis on maintaining closeness and nurturing relationships. This finding suggests that the teachers placed great importance on building and sustaining positive connections with their peers and managers. Positive politeness involves language expressions that convey friendliness, compliments, and
genuine concern for the other person’s feelings.

The second most prevalent strategy employed by the teachers was negative politeness, which underscores the notion of distance and acknowledges status differences. Superiors primarily employed negative politeness to preserve their position and status, while faculty members utilized it to respect boundaries and demonstrate deference to their superiors. Bald-on-record strategy, on the other hand, was predominantly used by faculty members of the same rank, indicating a level of comfort in direct communication without the need for excessive politeness. Lastly, the off-record strategy was the least utilized, primarily by superiors who preferred indirect and vague expressions when providing feedback or criticism to their faculty members.

The findings indicate that the teachers were mindful of their linguistic choices when addressing different individuals. They employed positive politeness when interacting with superiors and adopted a bald-on-record strategy when communicating with colleagues of equal status. Similarly, superiors were conscious of their language use and employed the off-record strategy when addressing their faculty members. This highlights the teachers' attentiveness to effective communication practices to maintain professional relationships, avoid causing offense, and adhere to social norms and expectations. This perspective aligns with Holmes and Stubbe's (2015) view on upholding an equilibrium between preserving a specific degree of interpersonal space and nurturing professional connections, while also meeting the requirements of the current tasks.

The pedagogues employed a diverse array of politeness strategies and proficient communication methodologies to preserve their professional affiliations, preventing the instigation of displeasure, and upholding societal conventions and anticipations. In contrast, the research conducted by Shalihah and Winarsih in 2023, which delved into the ethical considerations of interactions between lecturers and students via WhatsApp, exposed instances of transgressions against politeness norms attributable to the utilization of colloquialisms and impolitic linguistic expressions.

The outcomes of this study have relevance beyond the scope of the research itself. The study aims to contribute to the ongoing academic discourse surrounding politeness strategies, providing valuable insights for teachers, school staff members, departments of education, teacher educators, and policymakers. Understanding the perspectives and experiences shared among teachers and their superiors can enhance dialogue and communication between teachers and their principals and managers in an online context. Moreover, the study seeks to identify the most effective linguistic strategies for teachers in educational institutions. By doing so, it aims to inform decision-making processes related to teacher-staff interactions and foster a better understanding of the complexities of communication within educational settings. This understanding can lead to improvements in teaching practices, student learning outcomes, and the development of more effective training programs for teachers. Furthermore, the study opens avenues for future research exploring gender differences in the utilization of politeness strategies, highlighting the significance of appropriate language use in educational institutions characterized by formal and clear communication.

The findings underscore the importance of adapting linguistic strategies based on the individuals being addressed and the nature of the relationship. This emphasizes the need to comprehend cultural and social communication norms in diverse contexts to facilitate effective
communication and maintain professional relationships. The study sheds light on the appropriate linguistic strategies teachers can employ to navigate workplace dynamics, resolve conflicts, and foster positive relationships with colleagues and superiors.

In essence, this research invites thoughtful reflection on the power dynamics and social norms that shape interactions within the official WhatsApp group. It offers valuable insights into the use of linguistic strategies among teachers in their interactions with colleagues, supervisors, and authority figures within educational institutions. By gaining a deeper understanding of these strategies, teachers can enhance their communication skills, navigate workplace challenges, and foster positive relationships within their professional environments. The hope is that these insights will contribute to creating a more supportive and inclusive work environment, ultimately benefiting both teachers and students. Overall, this study guides teachers on effective workplace communication, building strong professional relationships, and promoting a positive teaching environment.

**Conclusion**

In this study, we examined the usage of politeness strategies by Jordanian English language teachers in their official WhatsApp group. The results revealed that these teachers employed all four politeness strategies identified by Brown and Levinson (1987). Among these strategies, positive politeness emerged as the most prevalent, indicating a strong emphasis on maintaining close relationships and fostering rapport. The teachers also utilized negative politeness, bald-on record, and off-record strategies to varying degrees. Negative politeness was primarily employed by superiors to uphold their status and establish a sense of distance between themselves and faculty members. Faculty members, on the other hand, employed negative politeness to respect their superiors' territory and demonstrate deference to their higher status. Bald-on record strategy was predominantly used by faculty members of the same rank, reflecting their comfort in engaging in straightforward communication without excessive politeness. In contrast, superiors preferred to employ the off-record strategy, opting for indirect and vague expressions when addressing their faculty members, particularly when offering criticism. In conclusion, our research illuminates the significant utilization of politeness strategies among Jordanian English language instructors within their designated WhatsApp group. These educators demonstrated a sophisticated comprehension of deploying diverse strategies, adeptly tailored to specific recipients and interaction scenarios. These findings enrich our comprehension of apt linguistic approaches within academic settings, offering the prospect of refining professional communication, cultivating favorable associations, and cultivating more all-encompassing pedagogical atmospheres.

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Unveiling the Subtle Art of Politeness: An Analysis of Jordanian Educators’

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Abstract

There has been a growing interest in online EFL teaching studies after the COVID-19 outbreak. However, the majority of the studies have centered around students’ perspectives. The studies examining the issue from EFL teachers’ perspectives, on the other hand, are relatively scarce. Therefore, this study qualitatively investigated EFL teachers’ perceptions and experience in this critical process to bridge the gap in the literature. For the study, the data were collected through written semi-structured interviews with 25 EFL teachers in Turkey. Five themes with several categories emerged based on the thematic analysis of the data with MAXQDA 2020 package program. The teachers commonly focused on the challenges of emergency online teaching and suggested potential solutions. The primary stemmed from the poor communication between teachers and students due to low engagement levels and technology-related issues. The teachers also struggled to find proper online EFL teaching materials since they had no or little experience in online education and did not know how to find teaching resources. They suggested providing EFL teachers with workshop opportunities to learn how to tackle technology-related problems and improve their online material developing skills. This study may extend the relevant literature by providing a deeper insight into EFL teachers’ practices and recommendations for practitioners of online teaching.

Keywords: Covid-19 outbreak, EFL teachers, emergency online education, online EFL teaching

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Introduction

The sudden outbreak of COVID-19 caught people off guard all around the world, and COVID-19 has been increasingly affecting human life on a global scale. Although the priority has always been health-related issues, countries worldwide have also been searching for ways to minimize the negative impact of lockdowns on the quality of education. During the pandemic when teachers and students had no chance to have face-to-face lessons, emergency online education was adopted without prior detailed planning (Karataş & Tuncer, 2020). Trying to take precautions for public health, schools in most countries closed and there was an abrupt shift to online education. Such a sudden shift to a complete online education platform required hi-tech devices and a stable internet connection, which was one of the many challenging issues for schools and universities (Ahmed, Salman, Abbas, Alkaisy, & Kathem, 2020; Toquero, 2020). For the transition from face-to-face education to complete online education to be smooth, there needs to be enough time to prepare for both teachers and students. However, because of the pandemic, the transition was abrupt, so most teachers and students had no time to shift their teaching and learning styles to suit the online teaching and learning environment (Mahyoob, 2020). In addition, not all schools and universities were ready for full-time online education, which caused further problems in the process.

The length of the lockdowns and mandatory online education, on the other hand, changed from country to country. In Turkey, schools closed down on March 16th, 2022, and from then on, online education took place on and off until September, which marked the beginning of the 2021-2022 education year (Can, 2020). After switching to mandatory online education, research into online education gained popularity. The challenges in EFL education have been one of the most commonly investigated issues from various perspectives. Although there is a growing number of studies investigating EFL teachers’ experiences during COVID-19 (e.g. Bailey & Lee, 2020; Hakim, 2020; Sundarwati & Pahlevi, 2021; Zhang, Yan, & Wang, 2022), the majority of the studies have either centered around students and challenges from their point of view or included EFL teacher participants working at university level. The literature review suggests a gap in online EFL education from K-12 teachers’ perspectives in the Turkish EFL context. Therefore, this study aims to contribute to the literature by shedding light on K-12 EFL teachers’ perceptions regarding their teaching experiences during mandatory online education in Turkey. Expanding on the findings of the research investigating EFL teachers’ lived experiences during the COVID-19 emergent online teaching in the literature, this phenomenological study aims to provide further insight into the essence of the phenomenon. In addition, the study presents the suggestions and recommendations of the EFL teachers about their challenges and experiences during emergency online education.

Literature Review

The inevitable changes in education since the pandemic outbreak have captured researchers’ attention. Allo (2020) examined the impact of online education during the pandemic from students’ perspective. The results showed that the participants are content with online education. They also stated that some of their classmates have no access to either the internet or technological devices; therefore, they prefer individual work rather than group work. Moreover, they believe instructors should be more precise while explaining what to do before each exercise/homework as it is more difficult to understand the instructions online. Another study from an EFL students’ perspective was conducted by Octoberlina and Muslimin (2020).
According to the findings of the study, the participants had difficulties since they were not familiar with e-learning, they had poor internet connection, and some physical pain due to spending too much time online.

One of the recent studies examining the issue from teachers’ perspective (Yan & Wang, 2022) deduced that teachers had to go through three stages while switching to online teaching without prior warning: preparing, adapting, and stabilizing. After a few weeks in the preparation mode, teachers were well aware of the importance of online lessons, and they adapted to the process by providing alternative methods for each difficulty they encountered. In the stabilization step, the participant teachers knew what to do better compared to a few months ago. However, teachers had to strive against various challenges throughout the process. Thus, the related literature mainly comprises studies focusing on the difficulties that teachers had to deal with.

The study by Hakim (2020), for example, investigated the challenges encountered by instructors at a university in Saudi Arabia through explorative sequential mixed-method research. The participants included 50 instructors teaching EFL in an online educational setting during the mandatory lockdown. The results indicated that the main challenges included the lack of hi-tech equipment and a stable internet connection. The students were also reported to have low levels of motivation and attention span. Despite the challenges, the participants were positive about using technology to teach their students. Two studies with similar results (Khatoony & Nezhadmehr, 2020; Algraini, 2023) also concluded that despite all the challenges, the participant EFL teachers were positive about integrating technology into their teaching. A recent study by Ma’rufa and Mustofa (2021) examined EFL teachers’ blended teaching experiences during the pandemic, and the results pointed to challenges, including a lack of student motivation, participation, and a stable internet connection. A study with similar results was conducted by Karaeng and Simanjuntak (2021). According to the findings, it was difficult for the teachers to maintain an interactive lesson mainly due to internet-related problems. The study by Putri (2021), on the other hand, investigated EFL teachers’ pedagogical challenges during mandatory online teaching and concluded that teaching productive skills, upper-level content, and providing feedback proved challenging in online lessons.

A study conducted in the Turkish EFL context (Şevik & Yücedağ, 2021) also concluded that the main challenges during online teaching through COVID-19 included problems regarding technological devices, internet access, and lack of previous experience with online education. Another study in Turkey (Gül, 2022) indicated that EFL teachers felt overwhelmed with all the extra tasks they were expected to accomplish without prior experience. Erdoğan and Yazıcı (2022), on the other hand, argued that Turkish EFL teachers had challenges in keeping students engaged and motivated during the lessons.

Method
This study followed a phenomenological research study designed to shed light on the common experiences of a group of EFL teachers as to what they experienced while teaching during the COVID-19 lockdown and how they experienced the whole process. A phenomenological study is helpful to highlight the specifics and determine a phenomenon as experienced or perceived by individuals in a common situation (Creswell, 2007). The researchers employed this research approach because the essence of the common experiences is expected to provide insights to policymakers, teachers, and practitioners who might experience a similar phenomenon in the future. Thereby, the study aimed to investigate a current and crucial
phenomenon more comprehensively. Written-interview was the most appropriate data collection tool since the COVID-19 outbreak was at its peak, and the country was on lockdown.

**Participants**

The participants included 25 EFL teachers working at the K-12 level in Turkish public and private schools during the data collection. The researchers preferred snowball sampling to choose the participants because chain referral made the data collection process cost-efficient on the lockdown, and it was easier to develop trust and affinity with these participants for more authentic and honest data. All participants participated in the study in the 2020-2021 academic year and had compulsory online lessons during the pandemic outbreak and data collection process. Of the 25 participants, only three were male. The majority (44%) had a teaching experience of 6-10 years.

**Research Instruments**

The data collection tool included a semi-structured open-ended interview. The researchers prepared six interview questions based on the related literature. They consulted them with two experienced colleagues, and made minor changes and additions based on the suggestions.

**Data Collection Process and Analysis**

The semi-structured open-ended interview questions were distributed to EFL teachers online through a Google Forms link. The data collection process took two weeks. The researchers thematically analyzed the data with MAXQDA 2020 package program. Thematic analysis is common in qualitative studies for understanding the nature of experiences and it comprises six crucial steps: familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, producing a report/manuscript (Kiger & Varpio, 2020; Nowell, Norris, White & Moules, 2017). The researchers followed the given six steps, analyzed the data separately, and slightly modified the established codes, categories, and themes on a consensus.

**Trustworthiness and Ethics**

The researchers utilized expert reviews, intercoder reliability, and thick descriptions to ensure the trustworthiness and validity of the research, after which they developed the research instrument. Before data collection, the researchers obtained the ethics committee approval from the Ethics Committee of a Turkish state-run university (Date: 16.10.2020). Furthermore, prior to the study, the researchers sent all participants informed consent forms declaring confidentiality of the data and identities. Additionally, the researchers separately analyzed the collected data. They calculated the overall intercoder reliability after comparing the two separate analyses. Accordingly, the intercoder reliability was found to be 93%. The researchers discussed different codes and categories and reached a consensus. Furthermore, thick description as a research methodology enhanced the trustworthiness of the current qualitative study since the researchers tried to explore the unique features of teaching English online on lockdown due to the COVID-19 pandemic as a phenomenon and to explore and present the subjective experiences of the participants. Therefore, the researchers gave all of the findings directly without commenting.
Results

In this study, trying to provide insights into EFL teachers’ perceptions and approaches regarding their experiences with online education during the COVID-19 pandemic, five themes were designated as a result of the data analysis. The themes include the changes, difficulties EFL teachers faced, comparisons of both types of education in the sudden transition from face-to-face to emergency online education, and suggestions about making it effective in the relevant process. A figure for each theme displays the codes and categories with their frequencies.

**Theme One: Changes and challenges in the sudden transition to emergency online education**

The participants expressed their experiences, especially on sudden changes in education. ‘The changes and challenges in the sudden transition to emergency online education’ EFL teachers faced were identified as the first theme as a result of the data analysis since they expressed the changes in education by emphasizing the challenges.

![Figure 1. Theme for changes and challenges in the sudden transition to emergency online education](image)

In Figure One, the pandemic-related changes and challenges EFL teachers experienced in their teaching are shown. The researchers identified only one category including several codes. Almost all participants (24 out of 25) emphasized interaction while expressing the changes faced in an emergency online education. They commonly stated that the social interaction between teacher-student and student-student decreased. That limited social interaction caused young learners to be more addicted to the internet and computers were asserted as “Social interaction decreased during this process, so children are more addicted to the internet and computers” (P 38). Additionally, the importance of face-to-face interaction and classroom interaction in effective education was underlined by the teacher-participants, and the absence of these kinds of interaction in the pandemic-caused online education resulted in motivation problems in students and teachers. Specifically, transferring students’ adverse home environments to the classroom environments in synchronized online education was shown as one of the reasons for lower motivation: “I was suddenly full of energy when I saw my students even if my mood was lower. I can neither see their faces nor hear their voices anymore. The chirping sounds were replaced by sounds synchronized with the parents fighting in the background” (P 10). The lack of face-to-face interaction left the teacher in a difficult situation in solving student problems, as stated by one of the participants: “Since we do not interact face-to-face with students, we find it difficult to learn
what they really experience and the real reasons for their distress” (P 25). Absenteeism was another challenge emphasized by social interaction. One participant mentioned that social interaction diminished as emergency online education increased the attendance challenges. However, unlike other participants, one of the teachers pointed out the positive side of online interaction and class participation as follows: “It is true that there were students that we could not reach in the interaction, but students who did not attend the lessons in our conventional classroom started to attend the lessons in online classrooms” (P 21). The participants highlighted the difficulty or limitation in communicating with students and parents in parallel with interaction. Participant 25 stated that “It is incredibly difficult to reach parents and students only by phone. Communication often fails. Not to mention that they haven’t even returned our calls.”.

The roles of students, teachers, and parents were another issue emphasized by the majority of the participants (N=18). The teachers pointed out that their students commonly played down online lessons and acted uninterested in lessons as follows “The student role is often frivolous. For example, during the lesson, watching another video in the back, taking care of his brother, etc.” (P 5). While some of the teachers said the parents did not take responsibility or play a certain role, others stated that the parents had a lot of workload in the pandemic-caused online education. Besides, some participants pointed out that there were no changes in the roles and responsibilities of teachers in online education as others signified that the duties and responsibilities of teachers increased, and their private and business lives became more tiring by merging. Furthermore, those teaching in rural areas stated that parents were insufficient to be involved in the process; therefore, their students could not become successful enough: “Since it is a village school, there is hardly any parental support. For this reason, the students cannot do these activities at home, or they make mistakes” (P14).

Assessment is yet another challenging issue in online education. The participants mentioned that assessments during emergency online education did not completely evaluate the teaching and learning process. The teachers explained that they tried to assess their students with homework, online quizzes, projects, etc. However, one of the teachers mentioned that technological barriers in terms of devices like tablets or laptops and mobile phones and internet accessibility hindered some of the students’ access to assessment activities “Those who do not have the internet, tablet, etc. are rightly excluded from the assessment” (P 25). The participants commonly thought that online exams and assessments did not reach their goal because they believed that the reliability was lower in online assessments.

As shown in Figure One, students’ and teachers’ motivation is one of the most scored issues (N=16). The participants pointed out that being at home all the time due to the mandatory quarantines and lockdowns reduced their motivation. In addition, sitting constantly in front of a screen decreased teachers’ and students’ motivation after a while. Only one of the teachers pointed out the positive motivation of the students as follows: “Since the textbooks we use online attract the attention of children, participation and motivation are increasing” (P 18).

Another code, which was determined as a result of the analyses, was related to the materials and sources used in the process. The participants had different approaches to online sources and materials. Some of them mentioned that they tried to use many different kinds of audio-visual sources and applications, interactive books, and worksheets during the process to both motivate their students by attracting attention and, thus to ensure student participation in lessons and to assess their students, or to gain time to rest. While one of the participants stated that there were not enough sources and materials in online education, the other one said that he
Through the Lens of EFL Teachers: Teaching Online on Lockdown

Çeşme & Çimen

wanted to use printed resources but had problems in delivering them to students in distance education as the following: “I cannot share the printouts I use during the online education process as my children have financial problems and they do not have the chance of a photocopy machine” (P14).

Teaching strategies/methods/activities was another code identified as a result of the data analysis. Although some participants stated that they acquired new teaching methods and technology-related strategies in the process, they also expressed that they were not completely satisfied. One of them: “Although discovering new technological methods contributes positively to us, it is unclear how beneficial it is to continue education using only technology” (P 2). It was underlined that group activities, chain repeat, and role play were not always possible in online education, even if diversity in activities increased. However, they often associated it with the issues with the internet and time: “Actually, group work is not possible. The variety of online activities has increased, but time and internet problems decrease the efficiency rate in the lessons” (P11).

However, administration and inclusion of technology were less focused issues. While one participant stated that administration members of schools became passive during the process, three participants mentioned that technology had to be fully included in all the stages of education.

To summarize the results in Figure One, the participants mainly emphasized the challenges and changes they faced in the sudden transition to online education due to the pandemic. Participant 12 summarized emergency online education during the pandemic with the following words:

“In my opinion, the general problem with online education is that teachers, students, and parents are not used to the digital teaching platform and have not been exposed to this much before. Especially since the pandemic process was shown as the reason for online education and this system was introduced to the student as a compulsory education process, not as an alternative education process, all these principles of necessity created a psychological dislike for the student. I believe that the difficulties we experienced in the adaptation phase lie behind all the problems we experienced, as we were brought up with the traditional education standards in this country and have maintained them for years. The problems will decrease if it becomes an alternative form of education that everyone can adapt to, from teacher to student.”

**Theme Two: Advantages of traditional education versus online education**

One of the open-ended interview questions was related to the positive and negative sides of traditional and emergency online education. As a result of the data analysis, positive aspects of traditional education versus online education were designated as the second theme.

*Figure 2.* The theme for advantages of traditional education versus online education
As Figure Two indicates, the second theme includes two categories and several codes for the advantages of traditional and online education. In the first category, few of the participants emphasized the advantageous aspects of face-to-face education. The participants underlined the importance of *interaction* and *participation* as in the first theme. They stated that if low-level students do not understand the subject in face-to-face education, it is easier to directly contact and help them to comprehend without distracting other students. Besides, they also stated that the games played as activities in face-to-face education increase the interaction, the students are more active, and thus the lessons are taught in a more fun environment. One of the participants explained this matter, comparing the games in face-to-face education with those in online education; “The games were fully enjoyable when they were face-to-face and in groups” (P 22).

The second category of the present theme focuses on the advantages of online education. Nineteen out of 25 participants pointed out a wide range of types of *materials and resources* used in online education, and it shows that it is the most crucial advantage of the respective type of education. Additionally, they stated that by using various visual-audio and interactive resources and materials, they could motivate their students and make English lessons more effective for their students; thus, these kinds of materials and sources provided to involve their students in the online English learning process ensure student participation in lessons. One of the participants said: “As the textbooks and materials we use online attract the attention of children, participation increases” (P 3). Furthermore, some teachers stated that the resources and materials used online were highly suitable for English teaching lessons and that some materials were even language skill-based. The materials these teachers used in their online English courses provided convenience to teachers and students, especially in terms of listening, pronunciation, and speaking activities, and English lessons, thus, became more enjoyable. One of the participants expressed it as “The students can see the visual of the word to be learned, listen and pronounce it. I think online English education is a unique opportunity for English teachers who try to teach on a chalkboard or blackboard. With online games, the students can make sentences, listen, and speak” (P 18). Two participants approaching the resources and materials used in online education from a different perspective found online education more advantageous in terms of environment and nature because they delivered digital worksheets instead of printed ones. One explained: “I think that the worksheets we send digitally prevent the waste of paper to some extent” (P 25).

Eight participants found online education more advantageous than face-to-face education in increasing students’ motivation and being more enjoyable and attractive for the students in terms of various activities. One of the participants declared that it is more challenging to involve shy students in face-to-face education than online education as the following: “…and because we did not see each other face to face, the extent of embarrassment among the students decreased, especially when speaking English” (P 2). Furthermore, as stated by one of the participants, the shorter lesson times than face-to-face education ensured that students were not distracted and thus increased their motivation: “Due to the shorter time in online education, students are more motivated than face-to-face education. As they are alone, there are no distractions. Since student-student communication was higher in the classroom, distraction was more common” (P 13). Additionally, only one out of 25 teachers found the involvement of parents in the education process as the advantage of online education. Underlining the importance of online education in maintaining communication with students during the pandemic period and in motivating them and ensuring that they did not miss the lessons, one of the teachers also added, “At least, we have the opportunity to meet with the students during these difficult times, they do not get away from
the lessons and teachers. A little is better than none because we are trying to do our lessons
together, we are trying to increase the motivation of our students even from a distance” (P 23).

Briefly, it can be concluded that the participants considered online education more
advantageous than face-to-face education in the present study.

**Theme Three: Disadvantages of traditional education versus online education**

The third theme includes the disadvantageous sides of both traditional and online
education. As shown in Figure Three, the participants mainly emphasized the disadvantages of
online education.

![Figure 3. The disadvantages of traditional education versus online education](image)

The first category shows the only disadvantage of face-to-face education expressed by the
participants. What they underlined as a disadvantage of face-to-face education was related to
technological and technical problems. They expressed that the smart boards in the classrooms
were generally out of order, and they do not always permit to use their USB devices.

The second category is about the disadvantages of online education. In this category, the
participants mentioned interaction, motivation, and technology-related issues (respectively
N=25, N=24, N=25). The participants often emphasized that there was less communication and
interaction in online classes, which was due to the limited time available in online classes. One
explained it as “There is not much opportunity for one-on-one interaction” (P 7). They believed
that they were more likely to be distracted by other students while focusing on a single student
for a while during an online class. Specifically, it was referred that this kind of education is not
suitable for their young students in terms of effective communication and interaction: “We cannot
provide communication that we need at the primary school level in online education” (P 15). The
fact that the interaction was limited to sound and a few materials, and the teachers could not see
all the students during the lesson as they would in a natural classroom environment, could not
control students’ learning environment, and the pressure of the presence of their parents in
students’ home classrooms was asserted as reasons for demotivated counterparts in online
education. One of the participants indicated the following as the reason for lowering her teaching
motivation to teach: “It can be a little discouraging to know that some of the students who don't
turn on their camera and microphone are acting really arbitrarily”(P1). While figuring out the
disadvantages of online education, the participants also pointed out that maintaining student
motivation in online education was challenging due to prolonged screen time, which was also
tiring for both teachers and students. The fact that teachers, who were also parents, made
concessions from the time they spent with their families while conducting their lessons was shown as a demotivating factor.

Online education depends on technology, specifically technological equipment and the internet, which has been a big challenge for shareholders during the pandemic. A related challenge was based on poor or lack of internet networks, technological devices, and digital skills. One participant stated that her students had inadequate digital skills and poor networks: “Having to explain technology to students is the main difficulty. I send the link. For this, I have to explain how to use WhatsApp Web, zoom chat box because they don't know. The internet is cut off, I repeat the same sentence to each student in different places over and over” (P 5). Another participant working in a rural school underlined the same challenge “Students do not have enough support at home (due to being a village school). Most students lack tablets, smartphones, and the Internet. In addition, they sometimes have problems with the use of technology even if they have all the devices” (P19). All participants emphasized that students facing these problems were deprived of the online education provided. Moreover, these kinds of problems reduced the efficiency of the lessons while increasing teachers’ workload.

The majority of the participants (N=20) emphasized the challenges based on online teaching strategies. The teachers commonly expressed that they had difficulties in controlling online teaching classrooms, they used limited foreign language teaching strategies and, therefore, limited teaching activities, specifically while teaching English to primary students. Furthermore, it was found that the limited online teaching strategies that teachers used during the pandemic worsened their students' speaking and writing skills rather than improving them. Stating that teaching English pronunciation online was disadvantageous, one of two teachers asserted: “Pronunciation is not very effective from the web camera, even if we use body language.” (P9).

The negative aspects of online education about activities and sources and materials were less emphasized by the teacher-participants (respectively N=7, N=8). They thought that online education limited classroom activities, specifically group work, chain repeat, and role play. It was underlined that efficiency and performance decreased due to technological problems although the diversity in online activities increased. One of the participants mentioned having difficulty conducting these kinds of activities; “There are many kinds of activities and materials, but we sometimes cannot use them because of some technological problems such as hardware and quality of devices and internet” (P 15). Moreover, increasing the number of students joining online activities made activities less effective. In addition, the participants underlined technical problems in using online sources and materials. While four participants found online course sources and materials limited and difficult to reach, one thought that teaching English to young learners with 2D visuals distracted them from other printed course materials.

Theme Four: Teachers’ Strategies to Overcome the Online Classes Challenges

The fourth theme was designated as the strategies EFL teachers used to overcome the challenges they experienced in online education during the pandemic as a result of the content analysis of the data. The theme includes several codes under four main categories as shown in Figure Four.
As seen in Figure Four, the participants preferred to use certain ways to cope with the difficulties of emergency online teaching. The first category was related to methodological strategies. The participants declared that they tried to enrich and concretize their online English classes with various kinds of materials including audio-visual and interactive materials, online sites, web tools, live worksheets, videos, power point presentations (N=9). Meanwhile, they tried to find alternative strategies not only for their students and lessons, but also for increasing their teaching motivation. One participant explained her strategy to keep her motivation higher: “I strengthened the virtual classroom environment by using apps like ‘Quizizz or Class dojo’ to increase my motivation” (P18). The participants also uttered that they used additional games and activities to make their online English classes fun. Thus, they thought that they kept their lessons from being dull and monotonous. Two participants changed their planned lesson hours and increased the number of their lessons by assigning their students to smaller groups because of the limited number of technological devices the students had. One pointed out this situation:

“I sometimes conducted my online English lessons in evenings because there were many students who attended the lessons on their fathers’ smartphones in the evenings. There was no conflict with their siblings when doing so. Even I conducted additional lessons and taught voluntarily at the weekends so that those whose lesson hours coincide with that of their siblings do not fall behind their classmates” (P2).

Choosing random student names from the class list and asking questions to involve them in the lesson and activity were among the strategies used by the teachers.

The participants also tried to strengthen their online English lessons with their technical strategies. Two participants stated that they bought better-equipped technological devices like flip laptops in addition to supporting their internet infrastructure, while three of them mentioned that they used different kinds of online education platforms and WhatsApp to contact and interact with their students. They underlined that they used WhatsApp constantly so that their students could ask their questions individually, especially when they were disconnected. Participant 10 stated that this strategy was tiring and very time-consuming as follows:

“When students’ connection cut off, I wanted them to take note of the points they could not understand and ask them privately, but this was very tiring. I spent most of my time after lessons answering the students’ questions with such messages.”

As a behavioral strategy, the participants commonly utilized motivating feedback during their online English lessons. They preferred positive feedback with words and sending emoji from the
screen to increase students’ motivation and attract their attention. Participant 5 asserted, “I try to attract children's attention by giving emoji awards on the screen.”. In addition, it was stated that students were sent announcements about lessons.

Parents became a part of online education for communication, especially on internet connection cut off and informing them about lessons. Two of the participants also stated that they felt desperate because of the process and that the strategies they used were insufficient as the following: “I don't think there is much I can do” (P3). In brief, the participants mainly focused on improving methodological strategies to make their lessons more effective and appealing.

Theme Five: Suggestions for the challenges

The last theme is related to the suggestions submitted by the EFL teacher-participants to make online English lessons more effective. As can be seen in Figure Five, the theme includes several codes under four categories.

Table 5. Suggestions from EFL teachers

As seen in Figure Five, the first category includes the methodological suggestions of the EFL teacher participants. The teachers commonly emphasized the use of different kinds of activities and games in English lessons (N=8). The teacher suggested using various activities to attract students' attention and involve them in the learning process. While one of the participants suggested using various activities to develop students’ EFL reading and writing skills, the other proposed using activities for listening and speaking skills: “We can give students extra skills classes like speaking activities, games, listening songs, videos” (P16). Participant 20, an EFL teacher of young learners, suggested generating games to keep young learners active: “Suitable games for online education can be developed because 1st and 2nd grade and even kindergarten students get distracted quickly. It is necessary to involve all children physically in learning through games.” Instead of using games and activities, one teacher suggested memorizing English vocabulary and solving quiz questions. One of the six teachers who suggested using and developing different materials recommended using quality and authentic English resources where students could practice speaking, another said: “E-resources suitable for all age groups should be created for online language education” (P4). On the other hand, two of the participants presented
suggestions related to course hours. One of them suggested more weekly course hours while the other suggested shorter lessons.

Online education is bounded by technological and technical basis. Therefore, the teacher-participants gave several technological suggestions to develop and strengthen online English education. Eleven out of 25 teachers suggested benefitting from Web 2.0 tools, websites, and applications in EFL lessons in terms of helping students develop their speaking and listening skills instead of traditional activities or practices. One stated that “First of all, children should be encouraged to speak more with applications that can detect children's voices. Otherwise, we can only go beyond solving tests, matching, or filling in the blanks” (P11). Moreover, it was also among the suggestions that paid resources should be included school libraries or membership should be added to the system of the Ministry of Education as the following: “Purchasing the membership of paid sites by schools where students can read books suitable for their English level, or adding a similar system to EBA (Vooks, Raz-kids)” (P8).

While one teacher emphasized that working with a group of teachers teaching the same branch in a school plays an important role in organizing and strengthening online English education, another teacher underlined the need to encourage EFL students with well-known and traditional motivating phrases that are important in teaching and learning with the following words:

“I think it is very important to tell students that it is okay to make mistakes. Since they are not among their friends in class, they may be much more comfortable with speaking and pronouncing. I think that encouraging them in this regard is an important way to improve language education.” (P23).

In the fourth category, the teachers (six out of 25) emphasized the importance of the professional development of EFL teachers in online education, while two teachers thought that it is necessary to involve students and parents in online education seminars or workshops as well as teachers. The tendency of teachers was generally towards training on the use of Web 2.0 tools as the following: “Applied online training can be given to teachers, especially on how and where to use Web 2.0 tools” (P6). One teacher thought that theoretical teacher training and training on the use of technology should be included in the pedagogical context as well as training on programs supporting distance education such as Kahoot. One participant also stated that training should be provided for the development of online EFL course materials: “Online material development courses are required”(P17).

The last category presents a suggestion related to the class size. One participant suggested less crowded classes, especially in language teaching lessons: “The number of students in English lessons should be decreased” (P1).

As a general comment on suggestions from EFL teachers, the participants commonly presented to use of different kinds of activities and games in online EFL classes as methodological suggestions. Moreover, they suggested that EFL teachers should use Web 2.0 tools in their online lessons for enriching and making them more effective. In addition, the teachers underlined the need to focus on Web 2.0 tools in professional development training or workshops.

Discussion

The study tried to discover EFL teachers’ experiences during the online education process that emerged from the COVID-19 pandemic outbreak in the Turkish setting. The participants were asked six questions about education during the pandemic process. The first question was related
to the pandemic-related changes and challenges EFL teachers experienced in their teaching. The sudden transition from traditional classrooms to online education was considered a new phenomenon by many teachers and learners in Turkey. However, emergency online education during the pandemic transformed the world of teaching and learning both positively and negatively. Consequently, they encountered various challenges due to the sudden online education. Interaction and communication challenges were among them. Almost all participants underlined that direct communication and interaction considerably decreased. The findings regarding interaction challenges due to the abrupt shift from physical classes to online teaching are in line with the results of the previous studies (Atmojo & Nugroho, 2020; Daragmeh, Mead, & Copeland, 2021; Mohmmed et al., 2020; van der Spoel et al., 2020). Although technology may be a paramount means of online interaction, it may also either reduce the amount or the quality of spoken communication among teachers and students (Shyamlee & Phil, 2012; Simin & Heidari, 2013). Emergency online education also necessitated cooperation between teachers, learners, and parents to diminish or decrease some challenges during online education. However, the participants commonly noted the changes in the roles of their students. Many of the participants also maintained that their students typically decreased the efficiency of online instruction by displaying a lack of interest in the lessons. Likewise, Yunus et al. (2019) mentioned that other online content such as games and chatting online while learning may distract students and prevent engagement. Moreover, the participants mostly highlighted the changes in teaching and learning motivation during online courses. Mandatory quarantines, lockdowns, and online courses demotivated both the participants and their students. In a similar study conducted by Nugroho et al. (2021), Indonesian teachers stated that the engagements of their students in online courses or online learning activities were lower due to the lack of motivation. The teacher-participants in the study focused on the diversity or absence of materials related to their lessons and the subject they teach, the teachers in the study by Nugroho et al. (2021), on the other hand, mentioned the difficulty in choosing materials and resources by their students’ needs in online education. Thus, it was time-consuming to prepare effective and suitable materials.

In the second interview question, the participants compared the positive sides of traditional and online education. The results indicated that online education was considered more advantageous. The teachers’ focus was primarily on the materials, sources, and activities used in online education. In addition, they regarded online education as more advantageous in terms of teaching methods and strategies because it provided rich content in English lessons and made classroom management easier. The participants commonly supported the idea that online English education would develop students’ language skills and maintain the quality of language teaching during the transition process during the pandemic. These findings are in agreement with Fitria (2020), Kawinkoonlasate (2020), Rahayu and Wirza (2020), Rifiyanti (2020), Shahzad et al. (2020) stating that online education including learning management systems and online teaching platforms turned the crisis into a helpful opportunity for both the teachers and the students by presenting rich and free online materials as well as by attracting students’ attention and making them feel confident, thereby increasing their motivation. As in above mentioned studies, additionally, the participants positively regarded online education during emergency remote teaching. In this respect, it can be concluded that one of the most possible reasons why teachers thought online education more advantageous compared to the traditional one was that English language teachers had already integrated digital and technological resources in their lessons (Turchi et al., 2020). Moreover, they had been familiar with Computer Assisted Language
Learning (CALL) turned out to be beneficial during emergency online education (Bailey & Lee, 2020; Huang et al., 2021).

The third question was on the disadvantages of traditional and online education. From the results, it can be deduced that English teacher participants had several challenges in online classes, thus, they considered these challenges as disadvantages. The major ones for them included a lack of technological devices, an unstable and poor internet connection, and low student participation, thus, limited motivation and interaction. The participants stated that they felt uncomfortable due to the lack of control over students and their learning environment, which made them more demoralized during the online English teaching process. They generally regarded online classes as unnatural. In line with the findings of this study, many studies found similar disadvantages to conducting online EFL teaching during the COVID-19 (Almekhlafy, 2020; Atmojo & Nugroho, 2020; Bailey & Lee, 2020; Hadianti & Arisandi, 2020; Huang et al., 2021; Nartiningrum & Nugroho, 2020; Novikov, 2020; Rahman, 2020; Sepulveda-Escobar & Morrison, 2020; Shaaban, 2020; Shahzad et al., 2020; Sürüş-Şen & Genç; 2022; Turchi et al., 2020). These previous studies showed that the abrupt online teaching of English contained significant shortcomings and left all stakeholders in education including language teachers, students, and parents in a difficult situation (Hadianti & Arisandi, 2020). As well as the insufficient technical and technological infrastructure including an unstable internet connection, ineffective online teaching platforms and inadequate or poor technical devices such as smartphones, tablets, and computers (Almekhlafy, 2020; Atmojo & Nugroho, 2020; Huang et al., 2021; Nartiningrum & Nugroho, 2020; Novikov, 2020; Rahman, 2020; Shahzad et al., 2020; Turchi et al., 2020), teachers’ lack of control over students’ in online learning environments and online teaching platforms, students’ inadequate technological literacy, online classroom management problems, the need for re-teaching, less varied teaching and engaging strategies/activities, a lack of direct interaction, thereby lower motivation to participate during the courses (Bailey & Lee, 2020; Huang et al., 2021; Mokoena, 2022; Nartiningrum & Nugroho, 2020; Sepulveda-Escobar & Morrison, 2020; Shaaban, 2020; Sürüş-Şen & Genç; 2022) were amongst the most underlined disadvantages of online English teaching during the pandemic.

The teacher-participants used various strategies to cope with the challenges they experienced during the process. They mainly focused on improving their methodological strategies to make their lessons more effective and attractive. They used various kinds of activities, sources, and materials to enrich their lessons and to increase both their own and students’ motivation. On the one hand, there were the teachers who were always looking for different strategies, on the other hand, there were the teachers who preferred to do nothing anymore. The results also proved that the teachers were usually aware that online education during the pandemic was a must rather than an option and they tried to do their best to sustain teaching activity without cancellation as stated by Andrivna et al. (2020). Moreover, the teachers experienced new online teaching resources and materials, and new digital tools and platforms; thus, they enhanced their TPACK knowledge to increase their students’ engagement and their own motivation in the process. The results are compatible with the study by Dhwan (2020) stating that teachers are free to provide flexible teaching platforms and to create or design new sources and materials. Additionally, parental support and involvement in online English education to maintain communication and teaching and learning routines was one of the results in line with Shamir-Inbal and Blau (2021). The teachers’ efforts to cope with the challenges of emergency online teaching and the developments in their online teaching skills as well as online language teaching...
strategies and methods showed how the teachers turned the challenges into opportunities (Shamir-Inbal & Blau, 2021; Cardullo et al., 2021; Marshall et al, 2020).

The last interview question was related to the teachers’ suggestions for more effective online courses. The findings suggest that teachers should include a wider range of activities to keep online students engaged. Nugroho, Ilmiani, and Rekha (2021) also argue the importance of providing students with up-to-date student-centered activities to keep their motivation levels high. According to Bailey and Lee (2020), a wise choice of various teaching activities might contribute to overcoming the challenges encountered in online teaching. For the best results, appropriate Web 2.0 tools, websites, and applications should be involved (Luy, 2021; Safira, Hadi & Zaitun, 2021; Hendrawaty, Angkarini & Retnomurti, 2021). Teachers who are not used to benefitting from technology in their classes on a large scale might naturally have problems during online teaching. The researchers in the literature, in parallel to the suggestions provided by the participants in the study, recommend teachers take part in professional development workshops and seminars to be able to select and apply the most convenient technological tools for their teaching purposes (Atmojo & Nugroho, 2020; Bailey & Lee, 2020; Dashtestani, 2014; Li, 2021; Lukas & Yunus, 2021). For the pre-service English teachers, on the other hand, a course related to online teaching could be added to the teacher training program (Fuentes-Hernández & Flórez, 2020; Van der Spoel, Noroozi, Schuurink & Van Ginkel, 2020; Sepulveda-Escobar & Morrison, 2020).

**Conclusion**

This study aimed to provide a deep insight into the EFL teachers’ experience during the online education process that emerged from the COVID-19 pandemic outbreak. The data collected through semi-structured written-interview questions revealed the participants’ challenges, advantages, and shortcomings of traditional and online education, strategies to cope with the challenges, and suggestions for the solution of them. Most of the participants mentioned poor communication among students and teachers as the primary challenge in online education, which may be a direct result of the lower engagement levels in online classes. The participants also had difficulty in choosing the appropriate teaching materials as they had almost no experience with such resources before. The ones who were more familiar with technological devices and web tools, on the other hand, proved to be advantageous in choosing the appropriate materials that increased their students’ motivation levels. Interestingly, when the participants were asked to compare face-to-face and online education, the most commonly mentioned problems were the technology-related ones. It could be concluded that schools lack sufficient technology in traditional education, however, individuals, too, seem to lack the proper technological devices and facilities to pursue a healthy connection to the educational platforms. The participants also confessed to lacking knowledge regarding effective teaching strategies for online EFL education. To maintain a satisfying teaching, they incorporated additional teaching materials/games/activities and benefited from motivational feedback. Based on the participants’ arguments, it could be deduced that using a broad range of activities/Web 2.0 tools/websites/applications, encouraging students during the whole process, and attending personal development workshops for online teaching could soothe the teaching/learning process. The findings are limited to the Turkish context and are subject to limitations of qualitative design. Future studies could conduct mixed-method studies with a wider range of participants.
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Pedagogical Concept of Integrative Teaching and Learning in the Context of Interdepartmental Interaction

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Abstract
This article presents the pedagogical framework for integrative teaching and learning, melding foreign language instruction with professional disciplines within the interdepartmental interaction. Through a comprehensive review of both foreign and domestic literature, the authors highlight the insufficient development of this concept in Ukraine, particularly in practical application. The study advocates for adapting and assimilating positive foreign experiences to the distinctive contours of Ukrainian higher education, underpinned by a robust theoretical and methodological foundation. The authors contend that the demands of modern life necessitate the active integration of interdisciplinary links into higher education curricula, leveraging foreign languages to develop foreign language professional communicative competence as an integral component of professional competence. They emphasize the pivotal role of interdepartmental collaboration in fostering such interdisciplinary convergence. Considering the unresolved nature of this issue in Ukraine, the significance and imperative for establishing an integrative teaching and learning concept in the context of interdepartmental interaction are undeniable. The article delineates the concept's goals and objectives, scrutinizes the pivotal preconditions and rationale for its development, and furnishes a comprehensive algorithm for the seamless integration of professional subjects and foreign language instruction. Two main stages of integrative training, preparatory and organizational-procedural, are distinguished, with their characteristics outlined. Additionally, the article underscores the need for designing specialized transitional courses to harmonize profession-oriented content in foreign languages with specific disciplines.

Keywords: Foreign language professional communicative competence, integrative learning, integrative teaching, interdisciplinarity, pedagogical concept, professional competence

Introduction

The exploration and formulation of innovative linguo-didactic concepts grounded in the principles of educational internationalization within the Bologna system constitute a key contemporary focus of scholarly and pedagogical investigation in Ukrainian higher education. Specifically, the elaboration of the integrative approach to teaching and learning foreign languages and professional disciplines is actively underway within the Department of Foreign Languages at Kyiv National Linguistics University.

The concept delineates the interplay between education, mainly foreign language training, and culture. It underscores a pivotal function of the educational process – nurturing future professionals with the capacity for intercultural communication and adept professional interaction within a multilingual and multicultural milieu. The concept is closely tied to the context of a higher educational establishment, primarily focusing on interdepartmental interaction. Through this interaction, the implementation of interdisciplinarity, the highest form of knowledge consolidation, is realized. This level of interdisciplinary integration necessitates bilingual education, wherein simultaneous learning in both the mother tongue and a foreign language occurs, distinct from the traditional monolingual approach to teaching professional disciplines. Hence, interdepartmental interaction significantly contributes to the advancement of such training methodologies. Thus, the article introduces the pedagogical concept of integrative learning within interdepartmental interaction. This pedagogical approach entails analyzing the concept's prerequisites, justifying its necessity, defining its objectives and tasks, and outlining the procedural framework for implementing the interdisciplinary integration of professional subjects and foreign language training. Considering that researchers have not yet adequately explored the issues of interdepartmental collaboration and bilingual education in Ukrainian professional higher education institutions, the unquestionable relevance of our research becomes evident.

Literature Review

Integrating teaching and learning, merging diverse contexts and experiences, is paramount in education. Several studies have delved into various aspects of integrative learning, such as designing learning environments, integrating practical training, and the role of corporate development projects. This paper highlights four studies that contribute valuable insights into these research areas. Bouw, Zitter, and de Bruijn's (2021) study examined the designable elements of integrative learning environments that combine features from school and work contexts in vocational education. The findings contribute to understanding the design of learning environments that connect school and work contexts. The research conducted by Nyen and Tønder (2018) explored different models of integrating practical training periods in vocational education in Norway. It identifies four models based on shielding from actual demands and relevance to the vocational field, discussing their impact on developing vocational skills and identity. Winborg and Hägg (2023) focused on preparing students for a corporate entrepreneurial career and proposed a framework for understanding the role of corporate development projects in corporate
entrepreneurship education. The framework identifies categories of learning outcomes and emphasizes the importance of project design in shaping the learning process. The research by Llinares and McCabe (2023) focused on the shared objective of exploring effective methods for integrating content and language learning within various bilingual/multilingual education programs. This perspective transcends the 'focus on form' approach, considering language as a meaning-making activity concerning specific classroom and academic disciplines. By applying Systemic Functional Linguistics (SFL), along with models like Legitimation Code Theory (LCT) and Cognitive Discourse Functions (CDFs), the study delves into the enactment of language and content integration, influencing curriculum development, pedagogy and assessment across diverse educational levels and contexts.

The process of language and subject integration is familiar in foreign linguodidactics. For example, one can mention the CLIL pedagogical approach, Content Language Integrated Learning, by Do Coyle and David Marsh, covering most of Europe, Asia, and Latin America (Coyle, 2008, 2010; Marsh, 1994, 2001). CLIL is an approach to bilingual education in which students concurrently study the content of a professional discipline and a foreign language, prioritizing learning the professional field through the foreign language. Innovators in integrative teaching of a foreign language and specialty, Thomas Hutchinson and Alan Waters, introduced their English for Specific Purposes (ESP) concept in the 1960s-1970s (Hutchinson & Waters, 1987). Tony Dudley-Evans, their follower, emphasized the importance of context in ESP, advocating for an in-depth analysis of learners' specific language needs within their professional or academic domains. He highlighted the significance of needs analysis and genre-based approaches in designing practical ESP courses and materials. Dudley-Evans' work profoundly impacted ESP's theory and practice, shaping how educators and researchers approach language teaching and learning in specialized contexts (Dudley-Evans & St. John, 2010). Thus, the needs analysis of the future specialist is fundamental while developing ESP for a relevant specialty.

The scientists mentioned above also devised a technology for implementing interdisciplinary interaction. Specifically, they delineate three stages of collaborative work between language teachers and professional discipline instructors: cooperation, collaboration, and team-teaching. It is worth noting that foreign scientists and practitioners actively pioneer and implement various models and technologies for integrative teaching of non-linguistic disciplines and foreign languages, each characterized by its originality and uniqueness. (Coyle, 2010; Dudley-Evans, 2010; Garcia, Martinez, & Rodriguez, 2017; Lee, Chen, & Wang, 2019; Marsh, 1994; Smith, Johnson, & Brown, 2021). In particular, Smith, Johnson, and Brown (2021) explored a blended learning approach that combines face-to-face instruction, online resources, and interactive language learning tools to integrate a professional discipline and a foreign language. Their study demonstrates the effectiveness of this approach in enhancing students' language proficiency and disciplinary knowledge. Lee, Chen, and Wang (2019) integrated virtual reality (VR) technology into teaching a professional discipline and a foreign language, developing and evaluating a VR-based learning environment that immerses students in real-world scenarios related to the
profession while providing language learning opportunities. The results highlight the potential of VR in facilitating immersive and engaging integrative learning experiences. They developed and evaluated a VR-based learning environment that immerses students in real-world scenarios related to the discipline while providing language learning opportunities. The results highlight the potential of VR in facilitating immersive and engaging integrative learning experiences.

Additionally, Garcia, Martinez, and Rodriguez (2017) focused on applying gamification techniques in integrative teaching. They designed and implemented a gamified learning environment incorporating game elements, rewards, and challenges. Their findings reveal that gamification enhances student motivation, engagement, and learning outcomes in the integrative learning process.

An analysis of the domestic experience in integrative teaching of foreign languages and professional disciplines reveals a well-developed theory of interdisciplinary integration, which serves as a method to enhance the effectiveness of higher education in Ukraine (Avsukevych, Hryshkova, Dolnykova, Drab, Lychko, Mykytenko, Sekret, Ponomarenko, Sytnyakivska, Tarnopolsky). Some researchers have devoted special attention to the problem of integrating foreign language instruction with psychological and pedagogical (Gapon, Dancheva, Maksymchuk, Poyasok). Khomenko (2015) presented the definition of integrative education, highlighted its components, defined the main principles, and delineated ways of implementation in higher educational institutions. The author also outlined interdisciplinary integration as a means of mastering language for the specialty, presented the definition of bilingualism, and delved into the issue of educational bilingualism. Regarding organizing bilingual education based on interdepartmental interaction, only a few studies and publications have even mentioned this topic (Dolnikova, 2011; Kotkovets, 2015; Proshkin, 2013; Sazhko, 2011). Sytnyakivska (2018) justified the theoretical and methodological principles of bilingual training for social specialists. The study offers a comprehensive model, content, forms, and methods for such activity.

As evident from the literature review, scholars have explored various facets of integrating foreign languages into professional disciplines through teaching and learning. However, no comprehensive concept seamlessly integrates these aspects into a pedagogical framework with a robust theoretical and methodological foundation suitable for practical implementation within Ukrainian higher education. Consequently, educators and institutions must recognize the significance and urgency of establishing such an integrative teaching and learning concept within interdepartmental interaction.

Methods

The authors employed various methods to achieve the research objectives, including analyzing, systematizing, and generalizing psychological-pedagogical and methodical literature to identify research areas. They utilized the praximetric method to explore the experiences of integrating professional foreign language training in higher educational institutions in the EU and the USA, considering the development of foreign language communicative professional
competence. Furthermore, they conducted *conceptual and comparative* analyses to compare existing theoretical approaches for defining and substantiating the concept of integrative teaching of foreign languages and professional disciplines, as found in specialized literature. Due to space limitations, this article will focus on specific components of our concept.

**Results**

Because of space constraints, this article will concentrate on particular components of our concept. The authors have presented compelling arguments to support the necessity and relevance of formulating a pedagogical concept for integrative learning in the context of interdepartmental interaction. This need arises from the following factors:

- Enacting the conceptual principles outlined by the Bologna Convention, which advocate for comprehensive knowledge and proficiency in professional disciplines and harnessing the potential of foreign language education as an integrative discipline. This approach encourages future specialists to sustain their language learning endeavors throughout their lives.
- Leveraging and adapting the wealth of experience in bilingual education, encompassing native and foreign languages, within higher education institutions. This area remains relatively underexplored in scholarly investigations.
- Implementing and fostering educational bilingualism as a mechanism for mastery in a specialized field, which involves integrating traditional monolingual instruction of professional subjects with academic bilingualism, advancing the strategic objective of foreign language education by nurturing *multicultural foreign language professional personalities*. This integration also catalyzes the alignment of the Ukrainian education system with the global higher education arena.
- Cultivating a culture of quality within higher educational institutions to underpin the competitiveness of both the institution and its graduates.
- Cultivating trust in the qualifications of university graduates, both domestically and internationally, entails ensuring that the graduates’ professional competence aligns with the expectations and requisites of clients and consumers, thereby contributing to the establishment's reputational capital.
- Recognizing, accommodating, and harmonizing all stakeholders' needs, requisites, and expectations concerning educational service provision according to national and international academic standards.

We have delineated the aims and objectives of the pedagogical concept of integrative learning within the context of interdepartmental interaction. Additionally, we presented the author's definition of integrative learning, elucidated its purpose, and outlined the strategies for its attainment.

*Aims and objectives of the pedagogical concept of integrative teaching and learning in the context of interdepartmental interaction:*
The concept aims to outline a procedural framework for realizing interdisciplinary amalgamation between professional subjects and foreign language instruction. This framework facilitates the acquisition of foreign language professional communicative competence through integrative learning.

The aim determines the expediency of defining the concept of "integrative teaching and learning." We prefer the author's definition because it reflects our understanding of the problem and serves as the basis for the research presented.

"Integrative teaching and learning is an approach to education that places the holistic development of students at the core of the language-learning process. It aims to cultivate the integration of linguistic and professional aspects, fostering interdisciplinary connections with both humanities and specialized disciplines. Reflecting on this integration, a comprehensive set of didactic materials should facilitate various activities to nurture and enhance students' integrative thinking. Ultimately, this approach ensures that students in their respective fields remain competitive in the future" (Khomenko, 2014, p.257). Integrative teaching and learning entail the simultaneous and equitable instruction of both a foreign language and a professional subject, thus ensuring concurrent linguistic and vocational education.

Consequently, specialized disciplines and foreign language studies mutually reinforce and enhance one another. This approach to learning encompasses a holistic grasp of shared concepts between the humanitarian and specialized disciplines. Moreover, it advocates for consistent learning methods and forms, especially interactive approaches, and continuous monitoring and adjustment of students' academic accomplishments. This cohesive educational strategy intends to foster a unified body of knowledge.

Integrative teaching and learning aim to form a holistic picture of the future profession and promote the future specialist's understanding of the relationship between special disciplines and a foreign language. The fulfillment of the following tasks achieves the aim:

- Use of the team teaching method - joint teaching, exchange of teaching decisions and strategies between a professional discipline teacher and a foreign language one, which involves organizing classes in two languages - foreign and mother tongue (bilingual teaching).

- Integration of pedagogical technologies/teaching methods and forms of various disciplines (accordingly, "intensive foreign language learning technologies, problem method, project method, case technologies, role-playing games, interactive presentations, practical work presentation competitions, discussions in a foreign language aimed at solving professional problems, "brainstorming," "round table discussion," business games, educational training, individual, paired, group performance of exercises, simulation of professional communication situations, development of programs, projects" (Sytnyakivska, 2018, p. 340).

- Selection of educational materials, processing of material, organization of student activities outside the classroom (intercultural interaction, which involves participation in real or simulated (production) contacts with native speakers of the languages or using English as a lingua franca) and student's self-study work on the material.
Pedagogical Concept of Integrative Teaching and Learning

• Development of assessment and corrective mechanisms applicable across professional disciplines and foreign language studies, fostering knowledge integration through the educational process.

• Recreation and emulation of the socio-professional environment within the educational institution, encompassing the subjects, subject matter, and societal context of a future specialist's professional pursuits. This immersion is imperative because acquiring proficient foreign language communicative competence, a crucial gauge of a specialist's qualifications and a catalyst for their professional trajectory, inherently depends on this immersion within the socio-professional milieu (Khomenko, 2015).

• Adaptability of educational materials, tasks, and simulated situations based on the student's language proficiency level, individual abilities, and self-defined goals.

• Focus on self-education and self-development, which determines the search for forms and tasks that stimulate the student's cognitive activity, the desire to learn more about the specialty, or the language for the specialty.

• Promoting self-management of activities, which involves modeling non-standard and spontaneous production situations in an intercultural professional space, which develops the ability to act and make responsible decisions and encourages effective behavior in stressful or competitive environments.

• Provision of subject interaction - personally and professionally oriented activities of teachers and students. At the same time, the creative individuality of teachers and a relatively high level of foreign language proficiency in the student group are paramount.

The authors also identified the significance of interdisciplinary interaction and coordination in training future specialists. As previously mentioned, the interdisciplinary approach, encompassing the instruction of diverse subjects as an integrated whole, stands as the pinnacle of integrative trends in pedagogical science. Fusing a foreign language with specialized subjects facilitates the systematic organization of knowledge across multiple domains, augmenting the pool of professional insights. Interdisciplinary courses broaden the spectrum of competencies for educators, fostering the concurrent and equitable acquisition of both foreign language skills and subject expertise – in essence, ensuring a simultaneous mastery of linguistic and specialized training.

We have delineated the advantages teachers and students gain from incorporating interdisciplinary courses into their learning experiences. Foreign language instructors benefit from gaining insights into the genuine context of foreign language professional communication and understanding students' authentic needs. They also have the unique chance to grasp the fundamentals of specialized subjects, enabling them to recreate genuine professional environments during classes. This approach helps in shaping both linguistic and professional competencies among students. Moreover, these educators can design distinctive evaluation methods that diverge from standard foreign language proficiency assessments. They also contribute to framing the
course objectives and developing problem-oriented communicative tasks tailored to the professional field.

Specialized subject teachers receive several advantages, including the ability to deliver their courses in foreign languages, the potential to engage foreign instructors for specialized modules, and collaborative efforts concerning methodology and language. Moreover, they gain the chance to employ a foreign language to consistently enrich their professional insights, keeping abreast of contemporary foreign publications within their field. This advantage is especially pertinent in educational internationalization, fostering academic exchanges, and facilitating opportunities like foreign internships.

Interdisciplinary courses provide an opportunity, through constant learning and self-improvement, to keep up with the times, thereby gaining authority among students and becoming a role model for them, i.e., contributing to raising the status of teachers.

In the presented concept, a foreign language is a tool for acquiring proficiency in other disciplines. Engaging in bilingual instruction for an academic subject is a multifaceted endeavor, as it demands the acquisition of both the subject matter and the linguistic form. Bilingual, professionally oriented education fundamentally employs a foreign language alongside the native language as a conduit for educational and cognitive pursuits in mastering specialized subject knowledge while training future experts. Cognitive engagement occurs in unison with linguistic activity, as students simultaneously learn the subject content while getting its expression in their native and foreign languages. In this manner, bilingual education is not solely the goal but also a means within the educational process. It is necessary to emphasize that in today's information-driven society, being bilingual is indispensable for professionals.

Taking all of the mentioned above into consideration, special departments and departments of foreign languages need to constantly interact with each other to coordinate the content elements of the disciplines and their compliance with the number of hours for these disciplines' mastering according to the curriculum.

**Discussion**

The research results presented here, derived from an analysis of specialized literature, dissertation research, and practical experience in integrative education, provide evidence for the relevance of the pedagogical concept of integrative teaching and learning in the context of interdepartmental interaction and underscore the advantages of this approach. Nevertheless, we maintain that the shift towards integrative learning necessitates thorough preparation as a primary requirement.

An analysis of both global and limited domestic experiences of interdisciplinary, integrative education within the framework of interdepartmental interaction underscores the significant potential inherent in this educational model. This potential suggests its ability to enhance the quality of training for future specialists within higher education. However, it is challenging to implement it in practice. Firstly, the interdisciplinary approach to designing a
holistic educational process is only beginning to replace the subject-disciplinary one. Not all higher educational establishments and departments are ready for this work. Secondly, one should also consider the inertia in our universities, the habit of traditional and well-known forms of organization of the educational process, and the additional load on department teachers. Integrative teaching and learning diverge from professionally oriented training through its heightened emphasis on subject content.

Conversely, in professionally oriented training, only 20% is allocated to subject-specific content, with the remaining 80% devoted to foreign language material. This division needs more modern requisites for cultivating comprehensive specialists who are proficient in their professional domain and possess knowledge across diverse fields. This distinction manifests in target orientations: professionally-oriented foreign language training entails language acquisition based on profession-oriented content. At the same time, integrated education aspires to the simultaneous and equitable mastery of specialized subjects and foreign language professional communicative competence, seamlessly integrated within the fabric of professional expertise. In other words, students master a specialty through the language and the language through the specialty. It involves communication in a foreign language in various professional communicative situations; motivation of students' speech activity, which can be either communicative or communicative-role one; organization of collective interaction, which means communication not only with the teacher but also with each other in simultaneous work in pairs and small groups of 3-5 people; concentrated presentation of new educational material intended for active learning; parallel mastering of all types of speech activity – listening, speaking (in forms of dialogues and monologues), reading and writing. The content of textual materials, exercises, and additional educational resources facilitates the simulation of a socio-professional environment. This environment nurtures conditions conducive to fostering students' professional cognitive skills and foreign language professional communicative competence. Also, it provides an avenue for integrating students' academic and practical engagements.

Another difference is the implementation of interaction between foreign language teachers and teachers of professional or other disciplines. In professionally-oriented training, such interaction is not a mandatory one. As noted above, even though the interdisciplinary approach has recently gained topicality, its implementation into teaching practice is taking place relatively slowly. It is fully realized exclusively within integrated education and is integral to developing foreign language professional communicative competence.

Integrated teaching involves the integration of teachers of specialized subjects and teachers of foreign languages, developing integrative educational programs by joint efforts, and organizing bilingual education, i.e., interdepartmental interaction. These factors challenge practical educators, researchers, methodologists, and students in specialized fields. Indeed, becoming proficient professionals in their respective domains necessitates foreign language proficiency, a reality underscored by our current information-centric society. Taking all these considerations into account, we assert that several aspects drive the development of the integrative teaching and
learning concept in the interdepartmental context: the underutilization of the potential benefits and resources stemming from integrating core subject matter and foreign language instruction, often due to the lack of a well-developed model for their effective fusion; an inadequately matured and scientifically underpinned bilingual education concept, which should harmonize language, professional, and intercultural elements. This concept aims to cultivate foreign language professional communicative competence. It is foundational for the internationalization of domestic education, aligning with the Bologna Convention's framework within the students' professional and pedagogical training process in Ukraine.

Considering the challenges and deficiencies outlined above regarding professional foreign language training in non-linguistic higher educational institutions in Ukraine, as well as the benefits of integrative education, as demonstrated in our brief comparative analysis of bilingual integrative and traditional monolingual education, we find it pertinent to propose specific pathways for transitioning to integrative education within the framework of interdepartmental interaction. These pathways facilitate the achievement of intended outcomes. Given the complexity of this transition, we identify two primary stages of integrative training: the preparatory stage and the organizational-procedural stage.

**Preparatory Stage**

Recognizing the imperative to align the professionally oriented content in a foreign language with specific disciplines, we advocate for developing a foreign language course titled "Introduction to a Specialty" or "Introduction to a Discipline." This course is a crucial stepping stone for assimilating terminologies and fundamental concepts from professional fields, thus acting as a conduit toward seamless integration within higher education. The instruction of such courses can be undertaken by teachers from foreign language departments themselves. For instance, courses such as "Introduction to the Global Economy" and the integrative transitional course "Business, Language, and Culture" are particularly recommended within economic disciplines. This latter course is pivotal in cultivating an integrated competency to effectively navigate a foreign language professional subculture while considering its culturally specific values and behavioral norms. As Khomenko (2014) highlighted, the success of our economists and entrepreneurs within the global international labor market hinges not solely on impeccable foreign language proficiency but also on their adept application of language, mindful of the national and cultural nuances of their business counterparts. The latter encompasses the ability to make decisions that align with the socio-cultural norms of partners, demonstrating flexibility, interpersonal communication skills, and an array of personal, organizational, and business qualities. In essence, this endeavor fosters a comprehensive professional culture among specialists, an amalgamation of each mono-national professional culture enriched through the lens of a foreign language.

For instance, students gain insights into the logic underpinning professional cultures across various countries. The Benelux nations, for example, operate based on consensus logic; Germany
exhibits a widespread reliance on contract logic; the USA follows a sense of paternalism, while France operates within a code of honor. Consequently, educators guide students to appreciate the value paradigms of foreign professional cultures, which is a quintessential prerequisite, as professional intercultural interaction inherently requires such understanding. Simultaneously, it becomes evident to future specialists that elevating their professional culture is imperative. Consequently, students cultivate a culture of professional communication, constituting an invaluable facet of their professional culture. This tenet holds not only within the realms of a foreign language but also within their native tongue.

Courses designed within the framework of integrative education remain amenable to updates during lectures, practical sessions, or seminar classes dedicated to specialized disciplines. Integrative learning entails an educational trajectory centered on mastering a discipline through a foreign language. A cornerstone of such training is the principle of interdisciplinary harmony, necessitating the synchronization of diverse subjects, the concurrent teaching of various disciplines, specific sections, or designated topics in both linguistic and subject domains. This principle also demands the refinement of instructional methodologies across disciplines to construct and implement an interconnected structure of interdisciplinary knowledge. In essence, it constitutes an interdepartmental educational and methodological project. Various *interdisciplinary interaction and coordination* modes, such as interdisciplinary pedagogical tandems or small groups, are proposed. These approaches yield the creation of pertinent integrative work programs, shared class plans, joint educational and methodological resources, manuals, glossaries, and strategies for seminars and laboratory sessions. The imperative necessitates this collaborative effort for students to engage with materials pertinent to their specialized subjects while mastering a foreign language for specific purposes. Consequently, the development of such materials should result from interdepartmental cooperation.

The forms of interaction can be as follows:

1. Foreign language teachers attend practical classes and familiarize themselves with the content of the relevant discipline (section, topic).
2. The discipline teacher and the foreign languages jointly work on the appropriate educational and methodological support.
3. Teachers work together on terminology, selection of appropriate terminological vocabulary, and original literature for students.

*Organizational-Procedural Stage*

The organizational and procedural stage of integrative learning involves several levels that determine the algorithm of integrative learning based on interdepartmental interaction.

*Level 1,* the organizational level, encompasses establishing goals and objectives for integrated education, specifically targeting the development of professional and foreign language communicative competencies. At this stage, activities include the exploration and selection of bilingual literature, the creation of methodological manuals and recommendations, the
identification of electronic textbooks and video materials for specific sections or topics within a professional discipline, the compilation of relevant terminology dictionaries, and the design of assessments and other forms of evaluation. These efforts contribute to the comprehensive and effective implementation of integrated teaching and learning strategies (Khomenko, 2014).

The next step involves developing integrated educational programs and teaching materials for the sections of the discipline that will be taught in two languages. These materials encompass not only the content of the study but also include goals for integrative learning of the topic, section, or the entire discipline, thematic planning, material and technical support, and criteria for evaluating students' bilingual work.

Another essential preparatory point is the constant diagnosis of students' integrative learning results. In other words, it is crucial to determine what specific competencies (professional and foreign language ones) students will master within a particular class and what knowledge, skills, and thinking processes students will develop while working on a specific text or topic/section. Indeed, the significance extends beyond mere content knowledge acquired during classes. Considerations regarding the cultivation of cognitive skills, such as comprehension, must also account for these aspects. Consequently, including "comprehension questions" while students engage with textual material is recommended.

All of the above leads to the fact that it is necessary to approach the selection of educational materials, in particular texts, seriously ("considering content") (Coyle, 2008, p. 75), which should contain both new professional and linguistic knowledge, consider a particular problem from different points of view, allow independent search and discussion of problematic issues that are in the content itself.

Level 2, the methodological level, combines text analysis with cultivating students' cognitive abilities, specifically their ability to connect content and cognition. This approach is firmly grounded in Bloom's taxonomy, a framework that steers educational goals from basic cognitive actions towards more intricate ones like analysis, synthesis, and evaluation. Educators nurture these advanced thinking skills through hypothesis formulation, problem-solving, and creative tasks (Bloom, 1984). The taxonomy, further refined by Krathwohl, takes the shape of a pyramid, encompassing stages including remembering, understanding, applying, analyzing, evaluating, and creating (Krathwohl, 2002).

Thus, work with the text should be based on, starting with low-order thinking skills, offering, for example, the following tasks: make a list, identify and highlight certain features, apply, and then move on to exercises that form higher-order skills: analyze, compare, identify differences, invent, plan, prove, predict. That is, we emphasize that bilingual education is not a transfer of knowledge from a specialist teacher to a student with little knowledge but rather an opportunity for each student to construct their system of understanding this or that phenomenon, to engage in various cognitive actions, in particular planning, discussion of results, their evaluation in the thinking process.
Level 3 focuses on communication, encompassing the study and practical use of lexical units and grammatical structures concerning the content. At this stage, we recommend exploring the lexical and grammatical aspects of the text material and subsequently applying these linguistic structures and units in real-life communicative situations involving a foreign language.

Teachers at this stage should deal with different types of language for other purposes and alternative approaches to learning and using language (language of learning, language for learning, language through learning) (Coyle, 2007). In particular, the language of learning is a set of language and speech tools essential for studying a specific subject area. A language for learning encompasses the communicative tools students utilize when engaging in group tasks and interacting with one another. Language through learning comprises new speech tools that may emerge during the learning process, requiring observation, study, periodic reinforcement, and eventual integration into students' vocabulary (Coyle, 2008).

Level 4 focuses on developing cultural awareness and providing opportunities for students to engage with relevant topics, fostering respect for diverse perspectives and understanding their culture and foreign cultures. Students are encouraged to recognize the differences between their culture and others, prompting them to analyze and compare information from various cultural standpoints. This process helps them form their understanding of phenomena or situations. Coyle (2007) states that creating diverse socio-cultural contexts during classes is crucial. This goal can be achieved through tasks that identify differences in vocabulary, idioms, and proverbs and through activities such as watching videos and listening to audio texts to explore cultural variations in concepts, ideas, theories, and production practices, comparing them to other cultures.

Therefore, as it follows, when working with an educational text, the focus shifts from simply familiarizing and memorizing terminological vocabulary and transferring content to establishing logical and cause-and-effect relationships between different parts of the text. The integrated lesson aims to enhance students' understanding of conceptual units within the text and their interconnections. Moreover, by presenting challenging questions and creating problem-based situations, the integrated approach fosters the development of students' cognitive abilities. Simultaneously, students learn the linguistic aspects of the text as a tool for acquiring new knowledge and skills relevant to their future professional endeavors.

Thus, an integrated lesson combines professional and humanitarian knowledge, skills, and abilities students need to acquire, merging them into a cohesive system. It goes beyond narrow specialization, giving students a broader understanding and perspective. The lesson fosters the development of foreign language professional communicative competence by integrating diverse subject areas, empowering students to engage effectively and interact within their prospective professional environments.

Considering those mentioned above, we hold the belief that students should acquire the following competencies:
1. Proficiency in crafting written texts in both their native and foreign languages on professional subjects and skill in editing and proofreading them.
2. Capability in verbal and written communication in a foreign language, including delivering presentations on personal and collaborative endeavors using communication technologies and conveying professional information through modern information and communication tools.

Regarding intercultural interaction, students will scrutinize and acknowledge the intricacies of other cultures, effectively present professional information during intercultural exchanges, conform to ethical standards inherent in different production cultures, and analyze methods of social interaction, all while considering national, ethnocultural, and confessional attributes.

Conclusion

The presented pedagogical concept of integrative learning within the framework of interdepartmental interaction represents an innovative approach tailored for the Ukrainian non-linguistic higher education setting. It offers a theoretical foundation and practical methods to address the scientific challenge of bilingual training for future specialists. This concept justifies the importance of such activity and identifies the factors that underline its relevance within Ukraine. It delineates its goals and objectives, distinguishing between two primary stages of integrative training: preparatory and organizational-procedural. Detailed characteristics of these stages provide a practical algorithm for implementing this approach, particularly in interdepartmental collaboration. Consequently, this concept equips higher education instructors with the means to implement it in their teaching effectively. Moreover, it aligns with the growing need for future specialists to possess bilingual subject competencies and prepares them for their forthcoming professional roles.

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References


**Capture to Communicate: Rhetorical Move 1 in the Abstracts of Hard and Soft Science Post-Graduate Dissertations**

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**Abstract**

Academic work is usually evaluated by the quality of its abstract which serves as a concise summary of the research findings. Therefore, the study aims to investigate the rhetorical structure of Move1 in the abstracts of post-graduate dissertations from both Hard Science and Soft Science disciplines. The paper intends to answer three main questions: how is Move1 manifested in terms of its text length? What are the most frequently used Sub-Move patterns of Move1? What are the most common lexical collocations used in Move1? To answer these questions, the study uses Santos’ (1996) framework to analyze a corpus of 100 abstracts selected randomly, 50 from Hard Science and 50 from Soft Science. The findings have revealed that Move1 in Soft Science might use more sentences than those in Hard Science. The findings have also shown that both disciplines rely on Sub-Move-A, stating current knowledge, and Sub-Move2, stating the research gap, as essential for communicating their ideas while the other Sub-Moves were rarely used. In terms of lexical collocations, while post-graduates in both disciplines frequently used the Adjective+Noun lexical collocation as their preferred structure to construct M1, the use of the other lexical collocations varied in both disciplines. The study concluded that Move1 is considered obligatory in situating the research, establishing its context, and capturing and communicating findings. Besides the pedagogical implications suggested, the study’s findings hopefully contribute to the development of abstract move-schema theory, enhance scholarly understanding of Move1 characteristics, and guide future research in the field.

**Keywords:** Abstracts, capture to communicate, hard science, rhetorical move, post-graduate dissertations, soft science

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Introduction

To be admitted to academia, researchers are required to adhere to the universal academic conventions that ensure the academic and objective transformation of their knowledge. Despite being a small-sized genre type, abstracts are considered an almost obligatory genre that offers a relevant contribution to academic debate (Santos, 1996). Being an inevitable introductory part of theses and dissertations, researchers might struggle to locate and summarize their ideas by building up informative, well-structured, and self-contained abstracts. Since abstracts are commonly written in a rhetorical pattern (Hyland, 2000; Swales, 1990), the Rhetorical Moves (RM) of the abstract genre have been the focus of many studies to come up with a standard model that ensures better negotiation of research ideas (Bhatia, 1993; Hyland, 2000; Lorés, 2004; Pho, 2008; Samraj, 2002; Santos, 1996; Swales, 1990, 2004; Tseng, 2011).

Due to the vital role of abstracts in conveying the significance and relevance of the research, a significant number of studies have explored the structure of RMs in the abstracts, but with much focus on Research Articles (RA) across various academic disciplines (e.g., Ahmed, 2015; Amnuai, 2019a; Doró, 2013; Fazilatfar & Naseri, 2014; Fazilatfar & Naseri, 2016; Indarti, 2022; Khany & Malmir, 2020; Liu, Jiang, & Du, 2023; Lu, Yoon, & Kisselev, 2021; Nurcik, Kurniawan, & Lubis, 2022; Pho, 2008; Qurratu‘aini, Kurniawan, & Lubis, 2022; Seiradakis, 2023; Tampanich, 2022; Tankó, 2017; Viera, 2019). In theses and dissertations, the abstract is also a crucial section that provides an overview of the research conducted. Although general guidelines of abstract writing are provided to writers to follow in both Soft and Hard Sciences, variation in the construction of academic text across academic disciplines has been acknowledged (Hyland, 2000; Samraj, 2002; Swales, 1990). Thus, the abstracts in post-graduate dissertations display differences in structuring the RMs to communicate their research findings to the intended readers. Therefore, there is an emerging interest in examining the structure and organization of RM of abstracts in theses and dissertations across disciplines (e.g., Amnuai, 2019b; Gani, Kurniawan, Gunawan, & Lubis, 2021; Karmila & Laila, 2020; Pratiwi, Hermawan, & Muniroh, 2021; Putri, Hermawan, & Muniroh, 2021; Putri & Kurniawan, 2021; Ramadhini, Wahyuni, Ramadhani, Kurniawan, Gunawan & Muniroh, 2021; Ren & Li, 2011; Zand-Moghadam & Mihami, 2016). However, such a research interest in analyzing RM of abstract dissertations is still rare compared with that of RA because dissertations have a smaller potential readership than RA (Amnuai, 2019b). On top of that, since writers are first required to obtain academic degrees by writing theses and dissertations before moving on to writing RA, there is a need to give dissertation abstracts more focus so that writers can improve their chances of success in academic writing.

Just as researchers must ensure a proper rhetorical organization of abstracts, so do they have to construct sentences using different structural and linguistic choices (Doró, 2013; Hyland, 2000; Hyland & Tse, 2007). When discussing linguistic features of the abstract genre, Doró (2013) emphasized that very few studies have combined the analysis of RM with the study of their linguistic realizations. What is more, investigating lexical collocations in dissertation abstracts has not been given any attention, despite reporting a minimal number of studies that focused on LCs in RA, such as English collocations in the Abstracts of RA by Thai EFL (Thongvitit & Thumawongsa, 2017); the translations of lexical collocations in thesis abstracts (Karjo & Metta, 2019); the discourse function of collocation in RA introductions (Gledhill, 2000). Consequently, the realization of LCs deserves more attention as it reflects the writer’s native-like linguistic competence (Bahns, 1993), which probably ensures his success in negotiating his research ideas.
Therefore, in view of the background discussed above, the main aim of the current study is to investigate the rhetorical structure of M1 in 100 abstracts of post-graduate dissertations from both Hard Science and Soft Science disciplines. As a result, the study’s significance lies not only in its potential to provide insights and open new trends to the development of abstract move-schema theory but also in its statistical account for the text length and most common LC categories used in M1 in the abstracts of Hard and Soft post-graduate dissertations. Overall, this study will hopefully contribute to the broader academic discourse on abstract writing, enhance scholarly understanding of M1 characteristics, and guide future research in the field. Consequently, the study is designed to answer three main questions:

1- How is M1 manifested in terms of its text length in the abstracts of Hard and Soft Science post-graduate dissertations?
2- What are the most frequently used Sub-Move patterns of M1 in the abstracts of Hard and Soft Science post-graduate dissertations?
3- What are the most common lexical collocations used in the abstracts of Hard and Soft Science post-graduate dissertations?

Before discussing the results obtained, the study will first introduce a brief review of the most common suggested models of rhetorical moves, the lexical collocation categories as proposed by Benson, Benson, and Ilson (1986), and the relevant previous studies. The study will also explain the methodology used to conduct the study, ending with a summary of the findings, and suggestions for further research.

**Theoretical Framework**

**Rhetorical Moves**

A move, according to Swales (1990), is defined as “a text segment that has a certain function and can be identified by its particular linguistic clues” (p.45). Alongside, Swales (2004) further points out that a move serves a functional unit rather than a formal one so that it could be realized by a clause or several sentences. Each move consists of some Sub-Moves or steps that combine constituent information in the move. One of the most prevailing move models used for analyzing abstract structure is Swales’ (1990) model called the CARS model (Create a Research Space), in which three moves were proposed for research article introductions: Establishing the territory, Establishing the niche, and Occupying the niche. In Swales’ (1990) model, M1 consists of three SM or steps: Claiming centrality, Making topic generalizations, and Reviewing items of previous research.

Inspired by Swales’ (1990) model, several attempts have been made to revise the existing models or propose other models, the most common of which are the five-move model of Santos (1996), Bhatia’s (1993) four-move structure, Samraj’s (2002) model, and Hyland’s (2000) five-move model. Based on the analysis of 94 abstracts on applied linguistics, Santos (1996) proposed five main moves, which are Situating the research, Presenting the research, Describing the methodology, Summarizing the findings, and Discussing the research. According to Santos’s (1996) model, each move is assigned a specific function. As a result, M1 is classified into Sub-Moves. These SMs are SM1-A (stating current knowledge), SM1-B (citing previous studies), SM1-C (extending previous studies), and SM2 (stating the gap of the research). Generally, M1 answers the question of what has been known about the field/topic of research. Another model is that of Bhatia (1993) who suggested a four-move model, referred to as the IMRD model, Introducing Purpose, Describing Methodology, Summarizing Results, and Presenting...
Conclusions). Samraj (2002) offered a revised model of the SMs proposed in Swale’s (1990) model structure for abstract writing, suggesting placing the literature review in M2 or M3 rather than M1 because the literature review should not be a part of a particular move in the model, see Table One below. Finally, based on 800 abstracts in eight disciplines, Hyland (2000) developed Bhatia’s (1993) four-move model, proposing a five-move model, which is (Introduction-Purpose-Method-Product-Conclusion). Table One below summarizes only M1 and its SMs in the most common models of RM.

Table 1. Summary of M1’s sub-moves across different models.

<table>
<thead>
<tr>
<th>Model</th>
<th>M1</th>
<th>SMs</th>
</tr>
</thead>
</table>
                                  |                     | ii) Making topic generalizations.  
                                  |                     | iii) Reviewing items of previous research. |
| Bhatia (1993)      | Introducing purpose | Presenting the author’s intention, thesis or Hypothesis, the objectives of research or the problem the author wishes to tackle. |
| Santos (1996)      | Situating the research | i) Stating current knowledge.  
                                  |                     | ii) Citing previous studies.  
                                  |                     | i) Extending previous studies.  
                                  |                     | ii) Stating the gap of the research. |
                                  |                     | ii) Making topic generalizations.  
                                  |                     | iii) Defining the key term.  
                                  |                     | iv) Identifying gap. |
                                  |                     | ii) Presenting background information. |

As shown in Table One, it can be observed that the suggested SMs of M1 are almost similar in terms of their functions and themes. Besides, while Bhatia’s (1993) model did not offer a detailed description of SMs research, Swale’s (1990) model was basically proposed to account for the organization of RM in the introduction sections. Consequently, the current study prefers to adopt Santos’ (1996) model to analyze M1 and its SMs in the abstracts of Hard and Soft Science post-graduate dissertations for two reasons. First, Santos’ (1996) model has proven its applicability to analyzing abstracts in both published RAs and written theses (e.g., Doró, 2013; Pho, 2008; Tseng, 2011). Additionally, Pho (2008) opined that the labels of the five moves and SMs are more meaningful than those utilized in other studies. Finally, we think that despite being an old model compared with the others, it is more comprehensive as it is used effectively for the analysis of RM structure in the abstract.

Lexical Collocations

Palmer (1993) defines collocations as “a succession of two or more words that must be learned as an integral whole, and not pieced together from its component parts” (p. 5). Benson, 295
Benson, and Ilson (1986) viewed them as fixed, identifiable, non-idiomatic phrases and constructions, classifying them into grammatical collocations and lexical collocations. Grammatical collocations consist of a dominant open-class word, such as a noun, an adjective, or a verb, plus a grammatical word, which is usually a preposition or a grammatical structure, such as an infinitive or clause (Bahns, 1993). Examples of grammatical collocations are *account for*, *the advantage of*, *by accident*, and *being afraid of*. In contrast, lexical collocations do not contain prepositions, infinitives, or clauses but consist of various combinations of nouns, adjectives, verbs, and adverbs, for instance, *to inflict a wound*, *crushing defeat*, and *deeply absorbed* (Bahns, 1993).

Benson, Benson and Ilson (1986) classified lexical collocations into seven main categories; see Table Two below.

**Table 2. Categories of Lexical Collocations as proposed by Benson et al. (1986)**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>PATTERN</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>Verb+Noun (V+N/P)</td>
<td>Set an alarm</td>
</tr>
<tr>
<td>LC2</td>
<td>Verb+Noun (V+N)</td>
<td>Withdraw an offer</td>
</tr>
<tr>
<td>LC3</td>
<td>Adjective+Noun (ADJ+N)</td>
<td>Strong tea</td>
</tr>
<tr>
<td>LC4</td>
<td>Noun+Verb (N+V)</td>
<td>Bombs explode</td>
</tr>
<tr>
<td>LC5</td>
<td>Noun1+Noun2 (N1+N2)</td>
<td>A pack of dogs</td>
</tr>
<tr>
<td>LC6</td>
<td>Adverb+Adjective (ADV+ADJ)</td>
<td>Deeply absorbed</td>
</tr>
<tr>
<td>LC7</td>
<td>Verb+Adverb (V+ADV)</td>
<td>Appreciate sincerely</td>
</tr>
</tbody>
</table>

The difference between LC1 and LC2 is that LC1 contains transitive verbs that denote an action, such as *to come to an agreement*, *to compose music*, or activation, such as *to set an alarm* and *to launch a missile* (Moehkardi, 2002). On the other hand, verbs in the LC2 category denote eradication or nullification, such as *to reject an appeal*, *to withdraw an offer*, and *to revoke a license*. However, these categories should be distinguished from free combinations and idioms. Free combinations are those whose verbs could combine freely with other nouns, such as the combination of the noun *murder* with verbs like *analyze*, *discuss*, *discover*, etc. In contrast, idioms are almost frozen expressions whose meanings do not reflect the meanings of their component parts, such as *to scream a blue murder*, which means *to complain very loudly* (Bahns, 1993). It is argued here that the lexical collocations of a move are part of the linguistic realizations of grammatical patterns, so we can confidently assert their impact on making abstracts well-crafted.

**Literature Review**

Due to the great significance of abstracts as a distinct genre on its own in academic writing, an emerging interest has been found in investigated thesis and dissertation abstracts across disciplinary varieties. Among the different proposed models, Hyland’s five-model framework (2000) was preferred by the majority of researchers to analyze all the RM in the abstracts of dissertations and Master’s theses (e.g., Amnuai, 2019b; Gani et al., 2021; Karmila & Laila, 2020; Pratiwi et al., 2021; Putri, et al., 2021; Putri & Kurniawan, 2021; Ramadhini et al., 2021; Ren & Li, 2011; Zand-Moghadam & Mihami, 2016). Nevertheless, some researchers employed other models for the analysis of RM, for instance, Samraj’s (2002) model by Sujiyani (2022); Santos’ (1996) model by Doró (2013); both Swales’ (1990) model of RA introductions and Bhatia’s (1993) move-structure model by Al-Ali and Sahawneh (2011); and Bhatia’s (1993) by Nikpei (2016).

To begin with, by investigating the undergraduate thesis abstracts written by Natural Science and Social Science students in Indonesia, Juanda, and Kurniawan (2020) found that
Natural Science and Social Science used different configurations of RM although M1 was conventional in both fields. Gani et al. (2021) conducted a similar study comparing the RM and SMs and the language features used in the abstracts of two master theses and two dissertations from the Soft and Hard Science disciplines. The results showed that while all the RM occurred in the four abstracts with similarities and differences between the abstract in Soft Science and Hard Science, the analysis of SMs showed no contrasting differences between both disciplines. Moreover, Gani et al. (2021) pointed out that “M1 (introduction) was employed more often in Hard Science (p. 158), which means utilizing more sentences compared with the abstracts from Soft Science. In the same vein, Pratiwi et al. (2021) examined the RM used in 60 undergraduate thesis abstracts in Humanities and Hard Sciences in Indonesia. They concluded that different disciplines affect the implementation of the RM in abstracts. Importantly, M1 was the most used move by Humanities students, which reflected their attempts to establish the context of their research. By adopting Bhatia’s (1993) four-model structure to investigate the RM of the research thesis abstracts in TEFL and Molecular Biology written in English by Iranian, Nikpei (2016) suggested that “M1, introducing purpose, was considered obligatory in both disciplines; the students of molecular biology used M1 more than the students of applied linguistics” (p. 176).

Other studies based their analysis on comparing the rhetorical structure of different sets of data, such as RM structure in thesis abstracts with RM in RA abstracts (e.g., Amnuai, 2019b; Ren & Li, 2011); RM in thesis abstracts with their translations in English (Firdausyiah, Hermawan, & Muniroh, 2021; Putri, Hermawan & Muniroh, 2021); RM in the abstracts of Master’s theses and dissertations by local with those by international graduate lecturers (Putri & Kurniawan, 2021); RM in Master’s theses by Iraqi with Master’s theses by international students (Ebadi, Salman, Nguyen, & Weisi, 2019). For instance, Amnuai (2019b) investigated the RM in ten RA and ten Master’s abstracts. The study revealed differences in the occurrence of RM in both data sets, although M1 was optional in both corpora. Similarly, Ren and Li (2011) identified the rhetorical moves in the abstracts of Chinese Master’s English theses and published research articles in applied linguistics. The findings indicated that Master’s students tended to use lengthy introductions in contrast with RA writers who showed selectivity regarding the RM employed. Ren and Li also (2011) added, “The length of each move can indicate the importance that writers attach to it since abstracts are presented in such confined rhetorical space” (p. 165). When comparing the Indonesian thesis abstracts with their translations in English, Firdausyiah et al. (2021) and Putri et al. (2021) found that both Indonesian and English abstracts were realized with similar rhetorical moves and SMs despite being written in different languages. What is more, M1 was viewed as conventional in the abstracts across languages. Apart from Hyland’s model (2000), Al-Ali and Sahawan (2011) employed Swales’ (1990) and Bhatia’s (1993) models to compare the rhetorical and linguistic variations between English and Arabic Ph.D. dissertation abstracts in the field of linguistics. The results showed that, unlike the Arabic dissertations, English dissertations were found to employ the M of Referring to previous research more, which indicated that “English Ph.D. candidates’ preference to place their work within the context of ongoing research to show that their research derives from a lively tradition of established related works in the field” (Al-Ali & Sahawan, 2011, p. 29).

On the other hand, some studies used corpora from one or related disciplines to trace the organization of RM in thesis and dissertation abstracts, such as undergraduate thesis abstracts of Computer Science students (Simanjuntak, 2022); thesis abstracts written by Indonesian EFL Graduate Students thesis (Sujiyani, 2022); abstracts of theses in teaching English as a Foreign
Language (TEFL) (Zand-Moghadam & Mihami, 2016); the thesis abstracts of Bachelor students at English Education Department (Karmila & Laila, 2020). However, the conclusions made in these studies varied concerning the type and frequency of M1 in the thesis under investigation. To clear up, based on utilizing Samraj’s (2002) model, Sujiyani (2022) opined that M1, *Situating the Research*, appeared to be optional. Sujiyani (2022) contributed to this result that “the abstract writers in this study are likely to lack for awareness of the important function of Move 1 has in the abstract composition (p. 60). Similarly, Karmila and Laila (2020) found it less frequently used in English Education undergraduate abstracts, whereas Simanjuntak (2022) concluded that M1 was one of the most frequently used rhetorical moves in undergraduate thesis abstracts of Computer Science students.

Drawing upon the conclusions made in the previous studies, the frequency of M1 occurrence seems controversial in that while some studies found it optional, others found it obligatory and conventional. Not only that, despite employing different models for the analysis of RM structure and using different sets of corpora, no study has been devoted to exploring M1 independently, focusing on the lexical collocations and text length it enjoys in thesis and dissertation abstracts. A fact that makes this study necessary to bridge such a gap in the existing literature.

**Methods**

This study is a corpus-based analysis that utilized a mixed-method design since both qualitative and quantitative methods were involved in the data analysis. There are two frameworks adopted in the current study. The study first utilized Santos’ (1996) framework to compare M1 in the abstract of Soft and Hard Science post-graduate dissertations. The second framework belonging to Benson et al. (1986) was also employed to analyze the realization of LCs in the selected dissertation abstracts.

**Corpus**

The data consisted of a small corpus of 100 abstracts (50 from Soft Science and 50 from Hard Science) taken from post-graduate dissertations of both Master’s and Ph.D. degrees by employing random sampling. Theses and dissertations were randomly selected from different departments and faculties across Universiti Putra Malaysia and published in the academic year 2015. They all reflected various topics in both Hard and Soft fields. Therefore, only abstracts were electronically retrieved from the library website of Universiti Putra Malaysia. Table Three below shows the corpus used to conduct the current study.

<table>
<thead>
<tr>
<th>No of Abstracts</th>
<th>Faculties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hard Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Faculty of Biology</td>
</tr>
<tr>
<td>2</td>
<td>Faculty of Veterinary Medicine</td>
</tr>
<tr>
<td>10</td>
<td>Faculty of Science</td>
</tr>
<tr>
<td>6</td>
<td>Faculty of Forestry</td>
</tr>
<tr>
<td>11</td>
<td>Faculty of Food Science and Technology</td>
</tr>
<tr>
<td>3</td>
<td>Agriculture Faculty</td>
</tr>
<tr>
<td>2</td>
<td>Biotechnology and Biomolecule Sciences</td>
</tr>
</tbody>
</table>
Research Instruments

The study employed the AntConc freeware corpus analysis toolkit, which is “a powerful concordancer, word, and keyword frequency generator” (Anthony, 2005, p. 729). It is primarily designed to assist in the study of corpus linguistics, which involves analyzing large collections of textual data, known as corpora. Therefore, AntCon was used to identify collocations that frequently co-occur in the text sort words, count, and list SMs.

Data Analysis

Since the study endeavored to investigate M1, its text length, and the realization of LCs in M1 sentences, there were two stages in the data analysis. In the first stage and based on the content and discipline, the abstracts were first classified into Hard and Soft Sciences and put in two separate files. Then they were numbered from One to 100. Following the reading technique, the abstracts were then qualitatively analyzed to locate the sentences communicating M1 in them. After locating M1 in each abstract, SMs were identified, extracted, and labeled according to Santos’ (1996) SMs, i.e., SM1-A, SM1-B, SM1-C, and SM2. Once both researchers finished the analysis individually, they met to validate their analysis and check if the identification of the SM were identical or not in both disciplines.

The second stage was concerned with the analysis of LCs realization in the sentences that communicate M1. The LCs in M1 were manually identified, extracted, classified, and tabulated into the seven lexical categories proposed by Benson et al. (1986). While recognizing LCs in each abstract, the instances of collocations that included more than one LC were decomposed into the lexical categories making up those collocations. For example, a collocation as paying close attention was decomposed into V+N pay attention and ADJ+N close attention (Tutin, 2008). Finally, the extracted data were transferred to the corpus-linguistic instrument to provide the statistical findings of the occurrences of M1’s sub-moves and the linguistic realization of LCs.

Results

Text length of M1

The statistics in Table Four below show that there is a significant difference in M1 text length in both disciplines because the text length of M1 varies between and within the Hard and Soft Sciences. The length of M1 in the Hard Sciences ranges from One to Eight sentences with an average of 2.91 sentences. The total number of words ranges from 16 to 191, which seems to exceed its regular length. On the other hand, the text length of M1 in soft science ranges from One to Ten sentences, and the number of words ranges from 18 to 345 words.
As Table Four illustrates, there is a significant difference in the text length of M1 either within the Hard Sciences samples or within the Soft Sciences samples. The text length mean is 67.07 for words and 2.91 for sentences in Hard Science. In comparison, the mean text length in Soft Science is 74.43 for words and 3.18 for sentences. However, the density of sentences in M1 in Hard and Soft sciences is almost similar in terms of text length.

**Rhetorical M1 and its SMs in the Abstracts of Hard and Soft Science Post-Graduate Dissertations**

As mentioned previously, M1 consists of four SMs: SM1-A (*stating current knowledge*), SM1-B (*citing previous studies*), SM1-C (*extending previous research*), and SM2 (*stating a problem*). The results suggest that M1 is similarly structured in both Hard and Soft Sciences, so there is no significant difference between Soft and Hard Sciences in the type and frequency of M1 and its SMs. Both Sciences depended on SM1-A and SM2, whereas less use of SM1-B and SM1-C is found; see Table Five below.

**Table 5. Frequency of occurrence of SMs in the abstracts of Hard and Soft post-graduate dissertations**

<table>
<thead>
<tr>
<th>Sub-Move 1A</th>
<th>Sub-Move 1B</th>
<th>Sub-Move 1C</th>
<th>Sub-Move 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hard Sciences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>0</td>
<td>31</td>
<td>87</td>
</tr>
<tr>
<td>62.5%</td>
<td>2%</td>
<td>0</td>
<td>35.5%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Soft Sciences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>4</td>
<td>1</td>
<td>30</td>
<td>80</td>
</tr>
<tr>
<td>56.5%</td>
<td>5.5%</td>
<td>1%</td>
<td>37%</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to Table Five, the results show that the SMs of M1 varies in terms of the occurrences in the analyzed dissertations abstracts. In other words, while there is a noticeable difference in the frequency of these SMs, both Hard and Soft Science abstracts use identical SMs.
The Hard and Soft Science post-graduates prefer to start their abstracts with SM1-A, *stating the current knowledge*, (62.5%) and (56.5%) respectively, because it occurs as the most frequent SM compared with other SMs. Similarly, SM2 (*stating the research gap*) occurs as the second most frequent move, constituting 35.5% in Hard Sciences and 37% in Soft Sciences. In contrast, SM1-B occurs rarely in both disciplines (2% in Hard Science and 5.5% in Soft Sciences). In addition, there was a complete absence of SM1-C in Hard Sciences, whereas it appears the least frequent with 1% in Soft Sciences. Let us consider the four examples below, the first two of which are instances from the Hard Science abstracts, while the other two are from the Soft Science abstracts.

**Example (1):** *(SM1-A)* Kuala Lumpur, like other cities in a tropical environment, faces serious environmental degradation of urban heat islands, atmospheric pollution, traffic congestion, and high energy consumption due to its rapid development and urbanization. *(SM1-A)* Unlike cities with a cool temperate climate and made worse by being in a valley set up, Kuala Lumpur’s outdoor living comfort is seriously affected by the accumulation of heat and generation of dust and smoke. *(SM2)* All these have resulted in a decrease in outdoor living comfort and quality, making outdoor life quite miserable, deterioration in public health, and even life-threatening.

Example (1) is the introductory part of an abstract dissertation on Hard Science from ecology. M1 consists of three main sentences. The first sentence is analyzed as SM1-A stating the current knowledge of the research focus, which is the pollution of the environment as a current situation of a problematic recent issue. Following is the second sentence that supports the claim of the research by comparing cities of cool temperature to cities of hot temperature. The sentence establishes the current research knowledge by providing a comparison between rural and urban cities’ natural living conditions. The second sentence can be classified as SM1-A (stating the current research knowledge) since the sentence does not belong to SM1-B or SM1-C (*citing previous research and extending previous research respectively*). Nor does it belong to SM2 (*stating a problem*). It is only in the third sentence where the gap is presented, so it represents SM2. Therefore, SM1-A is achieved in the first two sentences; that is, the first sentence offers general environmental problems in urban cities such as Kuala Lumpur, whereas the second lists the expected consequences of such environmental problems. In contrast, the third sentence communicates the gap or problem of the study. The analysis showed a complete absence of SM1-B and SM1-C, which supposedly convey to the reader the studies relatable to the research.

**Example (3):** *(SM1-A)* The equilibrium-pricing model using Arbitrage Pricing Theory *(APT)* has become one of the central models of modern financial theory. *(SM2)* However, The APT is too general in determining the factors which influence expected returns. *(SM1-A)* In this regard. The identification of factors is an issue with the most potential to be discussed and thus it is necessary in the test of the APT. *(SM1-C)* An empirical study on the APT has already been conducted in developed countries but the identification of factors is still inconsistent. *(SM2)* To add to this problem, little attention has been given in emerging markets, especially in the Malaysian market.

These five introductory sentences were extracted from an abstract dissertation from the Faculty of Finance. Although M1 in this example contains five sentences, the writer of this abstract keeps reciprocally negotiating the SMs. To clear up, while the first sentence illustrates SM1-A as it states the current knowledge, the second sentence introduces the gap or problem of the research by stating the inadequacy of the APT model in determining the impacted factors on pricing issues. Thus, the second sentence is considered to be SM2. Similarly, the third sentence extends the idea...
of the current need to test the APT model, which makes it treated as SM1-A. In the fourth sentence, the writer is citing a previous empirical study to support his claims of the need to test the APT model. So, this sentence is analyzed as SM1-C (citing the previous research related to the topic). The fifth sentence is considered SM2 since it restates the study gap when mentioning the need for such a study in the Malaysian context.

**Lexical Collocation in M1 in the Abstracts of Hard and Soft Science Post-Graduate Dissertations**

Based on the lexical collocation analysis as suggested by Benson et al. (1986), the results show that post-graduate students prefer to use ADJ+N as the most used type of LCs. Table Six summarizes the frequencies of LC categories used in the dissertation abstracts of post-graduates in both disciplines.

<table>
<thead>
<tr>
<th>Lexical Collocation Category</th>
<th>Hard Science (frequency&amp; percentage.)</th>
<th>Soft Science (frequency&amp; percentage.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V+N/P</td>
<td>14 (7%)</td>
<td>28 (12%)</td>
</tr>
<tr>
<td>V+N</td>
<td>19 (9%)</td>
<td>30 (13%)</td>
</tr>
<tr>
<td>ADJ+N</td>
<td>118 (55%)</td>
<td>121 (51%)</td>
</tr>
<tr>
<td>N+V</td>
<td>4 (1.5%)</td>
<td>18 (7.5%)</td>
</tr>
<tr>
<td>N+N2</td>
<td>12 (5.5%)</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>ADV+ADJ</td>
<td>29 (14%)</td>
<td>19 (7.5%)</td>
</tr>
<tr>
<td>V+ADV</td>
<td>18 (8%)</td>
<td>20 (8%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>214</td>
<td>239</td>
</tr>
</tbody>
</table>

Table Six shows variations in terms of the LCs used in both disciplines. The results suggest that the most frequent preference LC in M1 is the ADJ+N category in both Hard and Soft Sciences, constituting 118 (55%) and 121 (51%), respectively. However, the results show discrepancies in the occurrence of the other preferred LCs in both disciplines. While the ADJ+ADJ category appears as the second most frequent, with 29 (14%) in Hard Science abstracts, it appears as the fourth most frequent, with 19 (7.5%) in Soft Science abstracts. Similarly, V+N LC occurs as the second most frequent 30 (13%) in Soft Science, whereas it occurs as the third most frequent lexical collocation category in Hard Science with 19 (9%). Furthermore, N+V LC appears as the least frequent type of LCs in Hard Science with (1.5%), whereas the least preferred CL in Soft Science is N+N2 with (1%). Therefore, the variations in the use of LCs reveal that there seems no fixedness in terms of word lexical combinations of words in both disciplines.

**Discussion**

In terms of the first research question that explores the text length of M1 in the abstracts of 100 post-graduate dissertations from the Hard and Soft Sciences, the comparative corpus analysis has revealed a significant difference in both disciplines. By examining the text length of these abstracts, the results have revealed that although the abstracts in both disciplines exhibit several sentences to construct M1, Soft Science post-graduates might use more sentences to communicate
their ideas in M1. Post-graduates prefer to extend M1 by Two or Three sentences before moving to the next move. These findings agree with those that attribute the general length of M1 to the fact that dissertation abstracts are allowed more space than RA abstracts (Ren & Li, 2011). In other words, research article writers might find themselves obliged to reduce the abstract’s word number to meet the word limit (Tseng, 2011). On the contrary, dissertation writers could be luckier as they have more space to establish the context of their research, so M1 appears most frequently in various dissertation disciplines. Moreover, the study argues that M1 long text may be due to the desire of those post-graduates to establish the research topic in a detailed way. The results are in line with other studies that considered Soft Science or Humanities to use an introduction section or M1 more than Hard Science people (Amnuai, 2019b; Hyland, 2000; Pratiwi et al., 2021). Similarly, Putri, et al. (2021) confirmed that post-graduate students tend to give extensive information in their abstract to introduce their research topic. However, the study’s finding does not conform to the results obtained by Gani et al (2021) who pointed out that Hard Science dissertations tended to use more sentences than Soft Science as they employ M1 more in their abstracts.

Concerning the second question that deals with the analysis of the frequency of SM patterns in M1, the results have revealed no significant difference between Soft and Hard dissertations. Such a finding seems to lend support to what was stated by Gani et al. (2021) and Pratiwi et al. (2021), who concluded that the analysis of SMs showed no contrasting differences between both disciplines. Among the four focal rhetorical SMs analyzed, SM1-A is found as the most frequent SM in both disciplines, followed by SM2. The study’s result in reporting SM1-A as having the highest frequency of occurrence in both disciplines corroborated the findings of Santo (1996), who considered it the obligatory element in M1. To put it differently, the importance of SM1-A, stating the current knowledge, lies in its function in presenting the research background, context, and motivations for conducting it in its current form (Al-Ali & Sahawneh, 2011).

Moreover, the fact that M1, as the opening of the dissertation abstract, has been found in all the dissertation abstracts selected for the current study proves the significance of M1 in situating the research and establishing the background knowledge regardless of the research discipline. This finding conforms to Samraj’s (2005) viewpoint that this ‘introduction’ move is the most frequent and mandatory element in abstracts. The finding also aligns with that of Juanda and Kurniawan (2020) and Firdausyiah et al. (2021), who described M1 as a conventional move. Nevertheless, the fact that M1 is the most obligatory and frequent M is not in line with what was stated by Amnuai (2019b) who found it an optional move in abstract writing, and Karmila and Laila (2020) and Zand-Moghadam and Mihami (2016), who viewed it as one of the least frequent moves in thesis abstracts. In essence, the study agrees that M1 plays a crucial role in introducing the research topic and achieving the abstract communicative purpose (Samraj, 2002; Suijiyani, 2022; Swales, 1990). Therefore, whether it is the least or most frequently move used in dissertation abstracts, we view it as an indispensable part of dissertation abstracts. Putting in mind that the abstracts were written by Master’s and Ph.D. students, we agree with other studies that the discrepancy found in its occurrence depends on different factors besides the nature of the discipline, such as the guidelines provided by universities and institutions, the writer’s academic experiences, the writer’s cultural and educational background, the context of publication (Lorés, 2004; Putri, T. D. & Kurniawan, 2021; Simanjuntak, 2022; Tseng, 2011; Viera, 2019).

Finally, regarding the third question that is concerned with the lexical collocations employed in the current study, the corpus analysis has revealed a significant variation in the LCs employed in both disciplines. Such a finding accorded with Hyland and Tse (2007), who reported
variation in terms of range, frequency, collocation, and meaning across disciplines. However, the results showed a preference for using the ADJ+N category by both Soft and Science students. The highest frequency of ADJ+N structure is perhaps because this structure is easy and common among languages. This result conformed to that reported by Thongvitit and Thumawongsa (2017), who pointed out that ADJ+N is the highest CL used by EFL writers (N=337). This also appears to provide support for that finding by Kuo (2009), who considers this structure the easiest to be constructed among the other LC categories. Unsurprisingly, some ADJ+N collocations were found common in Hard and Soft Science abstracts, for example, e.g.: Great potential, main factor, crucial role, various changes, increasing trend, new concept, several researchers, effective use, etc. The post-graduates tend to use this structure for either definitions or descriptions of actions and key terms. With regard to the differences in using the other LC structures, the study has indicated that there is no fixedness in terms of word lexical combinations of words in both disciplines. The study agreed with Hyland and Tse (2007, p. 251) that ‘contextual environments’ reflect different disciplinary practices and norms, so there is a wealth of ‘discursive variability’ in academic vocabulary.

**Conclusion**

This study has aimed to analyze and compare M1 in the abstracts of Hard and Soft Science post-graduate dissertations in terms of text length, the rhetorical structure of their SMs, and the preferred lexical collocations in light of Santo’s model (1996). The findings have revealed that the text length of M1 varied significantly in Hard and Soft, with no significant differences in the type or frequency of SMs in both disciplines. Therefore, M1 was argued to be obligatory in theses and dissertation abstracts. In addition, analyzing the LCs employed in M1 has indicated that ADJ+N was the most frequent category of LCs used by post-graduates. The highly frequent occurrence of such a structure is perhaps because this category is not complicated in construction as other LCs. In contrast, both disciplines display differences in the use of other lexical collocations, which reflects the discursive variability of the academic genre.

**Recommendations for Further Research**

The study results have pedagogical implications to assist post-graduate writers and less experienced students in the rhetorical construction of their dissertation abstracts. Even though the study hopefully provides insights into the development of abstract move-schema theory, the account is still stipulative as it has limitations. First, the study analyzed only 100 abstracts from only one university, so further research could utilize more corpus from different universities across Malaysia or even the world. The study indeed included Master’s and Ph.D. abstracts written by different students; however, it did not consider either their personal or linguistic backgrounds, such as age, linguistic proficiency in English, academic experiences, cultural and social background, etc. Thus, there is a space for another study to consider these backgrounds as variables that might impact the rhetorical variation of dissertation abstract writing. Furthermore, the present study investigated only LCs as the linguistic aspect in M1, so other linguistic elements, such as idiomatic collocations, could be further examined.

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Strategies of Content Knowledge Representation and EFL Learners' English Writing Proficiency: Mediating Role of Critical Thinking Skills

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Abstract
The exploration of optimizing content knowledge representation and enhancing critical thinking capabilities in English as Foreign Language (EFL) learners' writing still needs to be improved. Cultivating adept critical thinking skills and effective content knowledge representation is paramount for EFL learners, given its correlation with heightened writing proficiency. This study sought to examine critical thinking skills as a mediator in the correlation between strategies of content knowledge representation and writing proficiency among EFL learners. A total of 360 English as foreign language participants engaged in the California Critical Thinking Skills Test and responded to a questionnaire on strategies of content knowledge representation conducted at Kaifeng Science Technology and Communication College, China. Subsequently, participants undertook a writing task, and the outcomes underwent analysis using SPSS 26.0, incorporating descriptive analysis, correlational analysis, and AMOS 24.0 for mediating analysis. The findings unveiled a correlation between critical thinking skills and EFL learners' writing proficiency, echoing the association observed between content knowledge representation strategies and writing proficiency. Furthermore, critical thinking skills were identified as a mediator, linking content knowledge representation strategies to writing proficiency among EFL learners. The combination of content knowledge representation and critical thinking skills emerged as a positive role in the writing process. This research underscored the paramount significance of critical thinking skills within a specialized discipline, highlighting their transformative potential for EFL learners' writing competency and accentuating their functions in the broader writing pedagogy.

Keywords: content knowledge representation, critical thinking skills, English as foreign language learners, writing pedagogy, writing proficiency

Introduction

English writing is considered a task that requires complex knowledge and logical thought, encompassing content knowledge, systematic knowledge, writing process knowledge, contextual knowledge, as well as critical thinking skills. However, it has been observed that language learners, particularly those under teacher instruction, tend to focus more on vocabulary and linguistic structures rather than on developing critical thinking abilities and content in their writing (Eda, 2018; Tan, 2020). Within the writing classroom, an undue emphasis resides on grammatical intricacies and mechanical writing skills, inadvertently sidelining the vital aspects of content organization and the logical cohesion of ideas (Bernstein & Greenhoot, 2016; Esmaeil et al., 2022; Teng, 2019). Consequently, there is a growing need for effective learning strategies among learners and teachers.

Deep thought plays a crucial role in English writing, and critical thinking skills such as inference, assumption recognition, deduction, interpretation, and evaluation are vital in this process. Some research has effectively elucidated the integration of critical thinking activities in the foreign language field (Ayçiçek, 2021; Li, 2021). Critical writers engage in the analysis, argumentation, and evaluation of ideas while organizing their writing. Importantly, after critical thinking training, learners tend to convey their perspectives critically and engage with multiple facets of a given topic (Esmaeil et al., 2022; Nadri & Azhar, 2016). Therefore, critical thinking skills serve as partial tools for enhancing learners' writing proficiency.

Furthermore, the significance of knowledgeable representational strategies in writing should be paid attention to. As mentioned earlier, teachers and students often prioritize language proficiency, focusing on syntax and lexicon (Jung et al., 2019; Teng, 2019). Similarly, the strategies employed for representing writing content play a significant role in the compositional process. Representing writing content requires the application of various strategies, including the writer's perspectives, facts, evidence, and theories. These strategies aid students in comprehending and enriching their writing content (Banerjee, 2019; Dyches et al., 2020; Ellerton, 2022). Thus, content knowledge representation strategies are independent factors in the writing process that facilitate the development and elaboration of writing content.

The relationship between content knowledge strategies and writing proficiency can be further influenced by selecting relevant critical thinking skills, particularly those grounded in argumentation and evaluation. Integrating critical thinking skills into content affects learners' writing ability as it expands their knowledge of English writing. For instance, previous research has explored the role of critical thinking skills in writing, particularly in fostering depth of thought (Lu & Xie, 2019; Wang & Seepho, 2017), demonstrating that writing thought becomes more profound through analysis and explanation. Other studies have examined the contribution of content knowledge representation strategies to learners' writing proficiency, indicating that writing content can be effectively represented using strategies such as facts, evidence, and statistics (Nejmaoui, 2018; Soodmand et al., 2017). These studies have shed light on the associations between content knowledge representation strategies, critical thinking skills, and writing proficiency (Cole et al., 2015; Dyches et al., 2020; Ellerton, 2022). However, few studies have examined critical thinking skills as a mediator in the relationship between content knowledge representation strategies and writing proficiency. Therefore, the present study aims to investigate the role of critical thinking skills as a mediator in the connection between content knowledge representation strategies and writing proficiency among EFL learners.
Strategies of Content Knowledge Representation and English Writing Proficiency

English writing is a complex task that requires content knowledge, logical thought, and critical thinking skills. However, in traditional language learning settings, learners often focus more on vocabulary and grammar, neglecting the development of critical thinking abilities and content organization (Ellerton, 2022; Teng & Yue, 2022). As a result, there is a growing need for effective learning strategies encompassing both language proficiency and critical thinking skills.

Content knowledge refers to the understanding and organization of information in writing. It can be divided into topical knowledge and discourse knowledge. Topical knowledge relies on material resources to deepen writers’ perspectives, while discourse knowledge focuses on expressing oneself effectively in writing (Qin & Bi, 2012). Strategies of content knowledge representation can be categorized into two types: internal knowledge strategies, which involve personal experiences and individual viewpoints, and external knowledge strategies, which rely on objective information such as facts and statistics (Ellerton, 2022; Qin & Bi, 2012). These strategies, such as subjective perspective, objective statement, paraphrasing, and comprehensive strategies, play a significant role in expanding the content and improving the quality of writing (Qin & Bi, 2012; Yang & Wu, 2016).

Some research has investigated the interplay between strategies of content knowledge representation and English writing proficiency. Manalastas (2020) found that students who performed well in content knowledge were more likely to produce well-organized compositions. Olinghouse et al. (2015) observed that different compositional strategies influenced the representation of content knowledge in argumentative writing. Meihami and Rashidi (2018) highlighted the role of metacognitive strategies in reducing writing anxiety and improving fluency and accuracy. These studies emphasize the importance of content knowledge strategies in enhancing writing proficiency.

Critical Thinking Skills and English Writing Proficiency

Critical thinking skills are essential for effective English writing. Critical thinking involves the analysis, evaluation, and interpretation of information to form well-reasoned and informed perspectives (Facione, 1990). Scholars have conceptualized critical thinking as a combination of cognitive factors, such as self-reflection, reasoning, and problem analysis (Esmaeil et al., 2022; Li & Liu, 2021; Mauro et al., 2022). Critical thinking skills can be categorized into various dimensions, including deduction, reasoning, assumption identification, and intellectual traits such as fairness, open-mindedness, and confidence (Cole et al., 2015; Dong & Yue, 2015).

Several studies have explored the relationship between critical thinking skills and English writing proficiency. Moeiniasl et al. (2022) found that students with high critical thinking skills demonstrated better writing performance and individual voice in assessing others’ perspectives. Nejmaoui (2018) highlighted the role of critical thinking skills in enhancing learners’ abilities to produce reflective thinking essays. Also, other studies have illustrated using critical thinking skills improves writing competencies and critical thinking processes (Bernstein & Greenhoot, 2016; Liu & Stapleton, 2018; Teng & Yue, 2022). These findings emphasize the positive impact of critical thinking skills on English writing proficiency.
Critical Thinking Skills as a Mediator

While previous studies have examined the direct correlations between strategies of content knowledge representation, critical thinking skills, and writing proficiency, little attention has been given to the mediating role of critical thinking skills in the relationship between content knowledge representation and writing proficiency. Understanding the mediating role of critical thinking skills can provide valuable insights into the underlying processes that contribute to improved writing proficiency.

Some studies have suggested that critical thinking skills act as a mediator between content knowledge representation strategies and writing proficiency (Tiruneh et al., 2017; Yang & Wu, 2016; Qin & Bi, 2012). Learners with better critical thinking skills tend to perform better in English writing by effectively representing their knowledge (Teng & Yue, 2022; Yilmaz et al., 2019). Effective content knowledge representation strategies, combined with critical thinking skills, can minimize writers’ anxiety and facilitate the use of appropriate critical thinking skills in writing (Ellerton, 2022; Kim, 2020).

However, the majority of previous studies have employed statistical analysis methods such as SPSS, while only a limited number of studies have used Structural Equation Modeling (SEM) for data analysis. Therefore, this study aimed to fill this gap by utilizing SEM with AMOS 24.0 to analyze the correlations between content knowledge representation strategies, critical thinking skills, and writing proficiency.

Method

The present research was meticulously designed to address the following research questions:

1. What are the correlations between content knowledge representation strategies, critical thinking skills, and writing proficiency among EFL learners?
2. Do critical thinking skills mediate the correlation between content knowledge representation strategies and writing proficiency among EFL learners?

By exploring these questions, this study aimed to contribute to understanding the complex relationship between content knowledge representation, critical thinking skills, and writing proficiency in the context of EFL learning.

Participants

This study purposefully chose 837 sophomore students, aged between 19 and 20 years, who were engaged in learning English as a foreign language. Each student had completed their final English course examination including writing in the preceding term, achieving commendable grades of A+, A, and A-. Throughout the previous semester, experienced lecturers adeptly delivered foundational instruction on essential elements such as vocabulary, syntax, and textual structure in writing classes, catering to the needs of these English writing students. A subset of 373 participants who had attained an A level in their examinations was included in this study.

Instruments

This study employed the California Critical Thinking Skills Test (CCTST) developed by Facione (1990) in conjunction with a questionnaire on strategies of content knowledge representation as established by Qin and Bi (2012). The CCTST serves as an evaluative test to gauge the critical thinking abilities among EFL learners. It consists of 34 items, systematically
distributed across five sections: interpretation, analysis, evaluation, induction, and deduction. Each question is worth one point, resulting in 34 points as a total possible score. Proficiency levels in these sub-skills are stratified as strong (28 or above), intermediate (19-28), or weak (19 or below) based on existing categorizations. The internal consistency of the CCTST demonstrated high reliability in this study, as evidenced by a Cronbach's alpha coefficient of 0.87.

The questionnaire on strategies of content knowledge representation was adapted from Qin and Bi (2012) and comprised 21 items grouped into six dimensions: subjection strategy, objection perspective strategy, statistic strategy, assessment strategy, comprehension strategy, and theory and fact strategy. Participants rated each item on a five-point Likert scale ranging from "strongly disagree" to "strongly agree." This questionnaire has notably exhibited high internal consistency, as evidenced by a Cronbach's alpha coefficient of 0.75.

Writing Task

Writing tasks were used to gauge knowledge organization efficiency and critical thinking rationality. The writing task was based on the IELTS academic writing section, requiring participants to write an argumentative essay of no less than 250 words within 40 minutes.

The criteria for evaluating the IELTS writing examination consisted of five components: Task Achievements, Coherence and Cohesion, Lexical Usage, Grammar, and Writing Accuracy. Each composition was assessed by a panel of three experienced professors using a holistic grading method ranging from 0 to 5 for each band.

Procedures

The procedure began with administering the CCTST to assess the critical thinking abilities of EFL English learners. Following that, the strategies of content knowledge representation questionnaire were distributed. Thirteen participants encountered difficulties with the questionnaires and were excluded from the analysis. The remaining 360 participants who completed both questionnaires engaged in a writing task evaluated by the three experienced lecturers who had undergone one week of criteria training.

The data collected was analyzed using SPSS 26.0 and AMOS 24.0. Initially, descriptive analysis was employed to examine the normality of statistics. Pearson correlation analyses were conducted to examine the correlations between critical thinking skills, strategies of content knowledge representation, and writing performance among EFL learners. Additionally, SPSS 26.0 and AMOS 24.0 were utilized to examine the mediating impact of critical thought skills on the interaction between strategies of content knowledge representation and EFL learners' writing proficiency.

This research employed an ex-post-facto design (Esmaeil et al., 2022) without any treatments. Normality was assessed, and Pearson correlations were used to identify the correlations between critical thinking skills, strategies of content knowledge representation, and writing performance among EFL learners.

Results

As portrayed in Table 1, the mean score of critical thinking sub-skills ranged from 2.11 to 4.21, strategies of content knowledge representation varying between 3.86 and 4.35, and writing proficiency encompassing a range of 4.00 to 4.21. The observance of the normality assumption is substantiated by the Skewness data, which oscillated within the confines of -1.261 to 0.479, while
the Kurtosis data exhibited values ranging from -0.563 to -2.355. These numerical values aligned with the established thresholds for Skewness and Kurtosis (i.e., Skewness|2| and Kurtosis|2|) (James, 2016).

Table 1. Descriptive statistics of the research variables

<table>
<thead>
<tr>
<th>Critical thinking skills</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
<td>3.91</td>
<td>.88</td>
<td>-648</td>
<td>.303</td>
</tr>
<tr>
<td>Analysis</td>
<td>2.11</td>
<td>.40</td>
<td>-809</td>
<td>.038</td>
</tr>
<tr>
<td>Evaluation</td>
<td>2.12</td>
<td>.44</td>
<td>-1.228</td>
<td>1.594</td>
</tr>
<tr>
<td>Induction</td>
<td>4.21</td>
<td>.79</td>
<td>-804</td>
<td>.192</td>
</tr>
<tr>
<td>Deduction</td>
<td>4.19</td>
<td>.77</td>
<td>-7.21</td>
<td>.207</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content knowledge representation</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjection</td>
<td>4.31</td>
<td>.76</td>
<td>-1.261</td>
<td>2.355</td>
</tr>
<tr>
<td>Objection</td>
<td>4.35</td>
<td>.72</td>
<td>-1.116</td>
<td>1.877</td>
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<tr>
<td>Statistic</td>
<td>4.03</td>
<td>.76</td>
<td>-0.419</td>
<td>0.714</td>
</tr>
<tr>
<td>Assessment</td>
<td>3.93</td>
<td>.81</td>
<td>-0.258</td>
<td>0.952</td>
</tr>
<tr>
<td>Comprehension</td>
<td>4.03</td>
<td>.80</td>
<td>-0.729</td>
<td>0.952</td>
</tr>
<tr>
<td>Theory and Fact</td>
<td>3.86</td>
<td>.87</td>
<td>-0.554</td>
<td>0.435</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Writing proficiency</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Achievement</td>
<td>4.21</td>
<td>.81</td>
<td>-0.624</td>
<td>-0.541</td>
</tr>
<tr>
<td>Coherence and cohesion</td>
<td>4.02</td>
<td>1.11</td>
<td>-0.479</td>
<td>-0.563</td>
</tr>
<tr>
<td>Lexical resource</td>
<td>4.02</td>
<td>.83</td>
<td>-0.710</td>
<td>0.874</td>
</tr>
<tr>
<td>Grammar</td>
<td>4.01</td>
<td>.81</td>
<td>-0.513</td>
<td>0.083</td>
</tr>
<tr>
<td>Accuracy</td>
<td>4.00</td>
<td>.78</td>
<td>-0.556</td>
<td>0.435</td>
</tr>
</tbody>
</table>

Moreover, the results in Table 2 showed that the five critical thinking categories were associated with six strategies of content knowledge representation, but not strongly, as all coefficients were less than 0.4. Nonetheless, the interaction between interpretation and comprehension (r=0.380, p<0.05) was superior to the others, indicating that writers understood content thoroughly by categorizing it into various sectors. However, there was no relationship between induction and theory and fact (r=0.084 p=0.112>0.05), implying that learners were not skilled in using theory or facts to induce or deduce perspectives.

Table 2. Correlation between critical thinking skills and strategies of content knowledge

<table>
<thead>
<tr>
<th>Critical thinking skills</th>
<th>Subject</th>
<th>Objection</th>
<th>Statistic</th>
<th>Assessment</th>
<th>Comprehension</th>
<th>Theory and Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
<td>Pearson</td>
<td>0.365**</td>
<td>0.311**</td>
<td>0.188**</td>
<td>0.265**</td>
<td>0.380**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.005</td>
</tr>
<tr>
<td>Analysis</td>
<td>Pearson</td>
<td>0.305**</td>
<td>0.295**</td>
<td>0.200**</td>
<td>0.184**</td>
<td>0.346**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Pearson</td>
<td>0.283**</td>
<td>0.243**</td>
<td>0.211**</td>
<td>0.171**</td>
<td>0.317**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Induction</td>
<td>Pearson</td>
<td>0.219**</td>
<td>0.239**</td>
<td>0.173**</td>
<td>0.104**</td>
<td>0.225**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Deduction</td>
<td>Pearson</td>
<td>0.282**</td>
<td>0.246**</td>
<td>0.305**</td>
<td>0.214**</td>
<td>0.273**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.005</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Strategies of Content Knowledge Representation

Xiaolei, Ismail, Yurong & Mengqi

smoothly with the help of clear explanation. Interpretation, such as clarifying meaning or categorizing, had an influence on writing accuracy (r=0.184, p<0.001).

Table 3. Correlation between critical thinking skills and writing proficiency

<table>
<thead>
<tr>
<th>Task</th>
<th>Coherence and Cohesion</th>
<th>Lexical resource</th>
<th>Grammar</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretaion</td>
<td>Pearson 0.259**</td>
<td>0.372**</td>
<td>0.401**</td>
<td>0.392**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Analysis</td>
<td>Pearson 0.254**</td>
<td>0.370**</td>
<td>0.396**</td>
<td>0.369**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Pearson 0.301**</td>
<td>0.382**</td>
<td>0.206**</td>
<td>0.254**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Induction</td>
<td>Pearson 0.247**</td>
<td>0.372**</td>
<td>0.351**</td>
<td>0.267*</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.001</td>
<td>0.048</td>
</tr>
<tr>
<td>Deduction</td>
<td>Pearson 0.319**</td>
<td>0.441**</td>
<td>0.225**</td>
<td>0.378**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

The association between subject ion and task achievement was highest (r=0.453, p<0.001) in Table 4, indicating that the more familiar topics writers were concerned with, the more experienced perspectives they organized. Grammar proficiency in writing was influenced by subjection, objection, statistic, assessment, and comprehension strategies. Still, there was no relationship between theory, fact, and grammar (r=0.064, p=0.229>0.05).

Table 4. Correlation between strategies of content knowledge representation and writing proficiency

<table>
<thead>
<tr>
<th>Task</th>
<th>Coherence and Cohesion</th>
<th>Lexical resource</th>
<th>Grammar</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjection</td>
<td>Pearson 0.453**</td>
<td>0.371**</td>
<td>0.318**</td>
<td>0.444**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Objection</td>
<td>Pearson 0.377**</td>
<td>0.313**</td>
<td>0.292**</td>
<td>0.341**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Statistic</td>
<td>Pearson 0.359**</td>
<td>0.375**</td>
<td>0.250**</td>
<td>0.304**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Assessment</td>
<td>Pearson 0.279**</td>
<td>0.209**</td>
<td>0.324**</td>
<td>0.419*</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.001</td>
<td>0.048</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Pearson 0.288**</td>
<td>0.245**</td>
<td>0.303**</td>
<td>0.378**</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Theory and Fact</td>
<td>Pearson 0.256**</td>
<td>0.230**</td>
<td>0.164**</td>
<td>0.064</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.03 level (2-tailed)

To be an acceptable model fit, the structural model was revised by connecting measurement errors (Byrne, 2016), and the modified model fit is presented in Figure 1. In standardized estimate loading factors, the observed and unobserved variables ranged from 0.33 to 0.93 in strategies of content knowledge representation, 0.59 to 0.93 in critical thinking skills, and 0.63 to 0.75 in writing proficiency, representing an acceptable effect size. CFA (Confirmatory Factor Analysis) results revealed an association between content knowledge representation, critical thinking, and writing proficiency. The correlation between content knowledge representation and logical
thoughts was 0.39 (p<0.05), indicating that an individual's knowledge and logical thoughts interact through mediation. The moderated interaction between skills in critical thinking and writing proficiency was 0.50 (P<0.05), pointing to a link between learners' compositions and critical thoughts. The correlation of 0.60 (P<0.05) is higher than the other two, suggesting a significant connection between EFL learners' writing proficiency and strategies of content knowledge represented in essays.

Figure 1. Model fit indices from confirmatory factor analysis

Additionally, the results in Table 5 indicated that the statistics from model fit indices ($X^2=320.829$; df=97; $X^2$/df=3.308; GFI=0.906; RMSEA=0.080; CFI=0.923; TLI=0.905; NFI=0.894) are in the acceptable range (Byrne, 2016).
Table 5. Model fit indices from confirmation factor analysis

<table>
<thead>
<tr>
<th>Model fit indices</th>
<th>$X^2$</th>
<th>df</th>
<th>$X^2$/df</th>
<th>GFI</th>
<th>RMSEA</th>
<th>CFI</th>
<th>TLI</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>-</td>
<td>-</td>
<td>&lt;5</td>
<td>&gt;0.9</td>
<td>&lt;0.10</td>
<td>&gt;0.9</td>
<td>&gt;0.9</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Model</td>
<td>320.829</td>
<td>97</td>
<td>3.308</td>
<td>0.906</td>
<td>0.080</td>
<td>0.923</td>
<td>0.905</td>
<td>0.894</td>
</tr>
</tbody>
</table>

Lastly, to determine the position of critical thought as a moderator in the connection between strategies of content knowledge representation and writing proficiency, the impact of content knowledge representation on compositional proficiency was first calculated directly. The t-value in Figure 2 and Table 6 was 0.610 ($p<0.05$), demonstrating that strategies of content knowledge representation directly impact writing proficiency.

Figure 2. Directing effect of strategies of content knowledge representation and writing proficiency

Given the impact of strategies of representing content knowledge on critical thinking ability, the loading factor of t-value was 0.39 ($p<0.05$) in Figure 3, indicating that the observed correlation is significant, and a link existed between strategies of content knowledge representation and critical thinking skills. Besides, the t-value loading factor on the effect of critical thinking on writing proficiency is 0.33 ($p<0.05$), proving that the observed connection is active and that the positive connection between skills in critical thought and compositional proficiency has been confirmed.
Furthermore, when scrutinizing critical thinking skills as a mediator, the correlation between strategies of content knowledge representation and writing proficiency was 0.48, highlighting the robustness of the observed relationship. This reaffirmed the substantial interaction between content knowledge representation and writing proficiency, which was further emphasized through the mediation of critical thinking skills. Besides, in Table 6, the Standard Indirect Effect (SIE) was 0.127 (p<0.05), suggesting that critical thinking skills were a partial mediator in the interplay between strategies of content knowledge representation and writing proficiency.

Table 6. Results of critical thinking skills as a mediator on strategies of content knowledge representation and writing proficiency

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Model</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies of Content Knowledge Representation→ Writing Score</td>
<td>.610</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Mediation Model</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies of Content Knowledge Representation → Critical thinking skills → Writing Score</td>
<td>.481</td>
<td>.000</td>
</tr>
<tr>
<td>Std. Indirect Effect (SIE)</td>
<td>.127</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Discussion**

As mentioned earlier, this study aimed to examine the role of critical thinking skills as a mediator in the relationship between strategies of content knowledge representation and writing proficiency among EFL learners. The findings revealed an active interaction between critical thinking skills and writing proficiency (r=0.50), as well as a significant correlation between strategies of content knowledge representation and writing proficiency (r=0.60), which is
consistent with previous research (Ellerton, 2022; Manalastas, 2020). Furthermore, there was a positive association between critical thinking skills and strategies of content knowledge representation ($r=0.39$), indicating a mutual connection between these variables.

It was observed that critical thinking skills significantly contributed to EFL learners' writing proficiency. Writers with higher levels of critical thinking skills demonstrated better writing proficiency than those with lower levels of critical thinking skills. This finding supported the notion that skilled writers utilize critical thinking to enhance their writing abilities, as noted by Li and Liu (2021). These writers understand the topics, develop the essay's structure, and assess the rationality of the material to construct coherent and well-supported ideas. The more they employ critical thinking skills, the higher their writing scores. Additionally, writers who provided clear explanations achieved higher scores in coherence and cohesion in writing proficiency. This aligns with the findings of Nadri and Azhar (2016) and Liu and Stapleton (2018), which suggested that critical thinkers improve their writing through deep thinking, filtering relevant information, and effectively organizing their compositions. Although the learners' overall performance was below average, they displayed a positive attitude toward critical thinking skills. Lu and Xie (2019) indicated that writers commonly integrate comprehensive resources and substantiating evidence into their writing, employing adept critical thinking skills to appraise and regulate their compositions. Similarly, according to Samson (2019), critical thinking as a multidimensional process including “complexity, integration, skills, principles, values, and assumption” (p.6) motivates writers to incorporate knowledge and skills into the writing process. However, Soodmand et al. (2017) argued that the interaction between critical thinking skills and English writing is weak, with deduction being one of the challenging skills in writing propositions.

The findings also revealed a significant correlation between content knowledge representation strategies and EFL learners' writing proficiency. This finding supported the previous research by Olinghouse et al. (2015), and Yang and Wu (2016), which highlighted the influence of content knowledge representation on writing achievement and performance. The present study found that learners gradually connect their prior knowledge to writing and enrich the content by employing strategies of content knowledge representation. Importantly, their attention is not confined solely to precise syntax or vocabulary, but to unearthing pertinent facts and evidence that substantiate their perspectives. Consistent with the findings of Yang and Wu (2016), familiarity with the topic influenced the utilization of content knowledge strategies. Learners perform better when writing on familiar topics as they possess relevant knowledge and experiences, which enhances their motivation and fluency. They also found that different strategies for representing content knowledge were associated with different attitudes toward writing. The subjective strategy, which contributed to improved writing fluency and motivation, allowed writers to express their perspectives. Therefore, topical familiarity played a crucial role in writing proficiency. However, it is worth noting that the strategies for representing content knowledge were beneficial in moderating the overuse of subjective experiences. Effective writing necessitates the fusion of internal and external knowledge, amalgamating individual experiences with pertinent facts and concepts. Without compelling evidence, writers tend to overgeneralize their writing organization. These findings support Qin and Bi's (2012) classification of internal knowledge into knowledge absorption (e.g., theory, paraphrase, and generalization), knowledge evaluation (e.g., critical thinking skills), and knowledge development (e.g., statistics) to broaden the content of writing. The emphasis on internal knowledge conflicts with knowledge criticality and development.
Learners establish connections between their perspectives and those of others to effectively express their ideas.

Furthermore, the findings revealed a significant association between critical thinking skills and strategies of content knowledge representation, which is consistent with Moeiniasl et al. (2022), and Yang and Wu (2016). As suggested by Moeiniasl et al. (2022), an increase in critical thinking awareness leads writers to adopt reasonable strategies for representing content knowledge in their essays, thereby enhancing their writing performance. Additionally, critical thinking skills in language learning are manifested through the representation of content knowledge. Similarly, Yang and Wu (2016) found that advanced writers prefer to represent relevant cognitive knowledge and incorporate critical thinking skills for self-regulation. Learners generate their perspectives by combining prior knowledge with novel strategies to construct the structure of their writing. Consequently, strategies of content knowledge representation are characterized as representing prior knowledge in light of new knowledge. Based on their assessment of existing knowledge, writers use critical thinking to generate new knowledge, thereby achieving writing goals ranging from knowledge representation to thought promotion.

The structural equation model (SEM) analysis indicated that critical thinking skills serve as a moderator in the relationship between strategies of content knowledge representation and writing proficiency among EFL learners. The utilization of critical thinking skills encourages students to gather diverse materials, consider multiple viewpoints, and enhance objectivity and problem-solving abilities (Liu & Stapleton, 2018). On the other hand, the approach of content knowledge representation involves presenting writing content through various strategies to improve writing quality (Esmaeil et al., 2022). Additionally, a familiar topic boosts learners' motivation to organize their perspectives and effectively implement writing strategies (Yang & Wu, 2016). Critical thinking skills enhance learners' writing abilities by enabling them to make decisions, explain relevant theories, and engage in problem-solving projects. In contrast to Esmaeil et al.'s (2022) study, which found that critical thinking skills do not mediate the relationship between language strategies such as metacognition, cognition, and EFL learners' writing efficiency, this study unveiled a significant mediating effect of critical thinking skills on the relationship between strategies of content knowledge representation and EFL learners' writing proficiency.

Conclusion

This study unveiled noteworthy correlations among content knowledge representation strategies, critical thinking skills, and writing proficiency among EFL learners. The findings demonstrated a positive interaction between critical thinking skills and writing proficiency, as well as a mediated relationship between content knowledge representation strategies and writing proficiency through critical thinking skills. These results emphasized the importance of developing critical thinking skills and utilizing effective strategies for representing content knowledge to enhance EFL learners' writing abilities.

The implications of this study suggest that educators should prioritize integrating critical thinking skills into writing instruction to improve students' analytical, explanatory, and evaluative abilities in their compositions. Furthermore, curricula should shift the focus from personal experiences to a balanced combination of internal and external knowledge, enabling learners to explore diverse perspectives and enhance the quality of their writing. By understanding the mediating role of critical thinking skills and the influence of content knowledge representation
Strategies of Content Knowledge Representation

Xiaolei, Ismail, Yurong & Mengqi

strategies, educators and researchers can further enhance writing pedagogy and contribute to the field of second language acquisition.

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Agreement Attraction Errors among Saudi Non-Native English Speakers

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Abstract
Agreement attraction errors are one of the errors that language users make, and psycholinguists examine as a window into how language processing functions. Agreement attraction errors arise if a sentence has a complex noun phrase with the main noun acting as the controller of agreement and a local noun acting as the attractor for agreement. Earlier research has shown that phrases tend to have more agreement errors than clauses among native speakers of English. This study investigated whether agreement attraction errors are more in phrases than clauses among non-native English speakers with varying proficiency levels from Saudi Arabia, as little has been done on non-native speakers of English. The study used a forced-choice task by instructing the participants to select either singular or plural verbs for each complex noun phrase that was displayed. The quantity and quality of their agreement errors—whether in prepositional phrases or relative clauses—were examined in the study. Furthermore, it contrasted reaction time for items with prepositional phrases to items with relative clauses. Proficiency level was also reviewed to determine how it affected agreement attraction errors. No statistically significant difference was found between the two types, but processing items with prepositional phrases took longer than processing items with relative clauses. Despite past research suggesting that agreement errors are more common in phrases than clauses, the current study did not find this difference to be of significance. The complexity of both sorts of errors is equal among the sample, and proficiency proved to be irrelevant.

Keywords: agreement, attraction, errors, proficiency, production, reaction time, Saudi non-native speakers

DOI: https://dx.doi.org/10.24093/awej/vol14no3.20
Introduction

Language users’ errors can provide a window into understanding how language processing works and agreement attraction errors are a particular type of these errors. Attraction errors occur when a sentence has a complex noun phrase consisting of the main noun, also known as the head or controller, and a local noun, also known as, the attractor (Patson & Husband, 2016). The phrase “the key to the cabinets” contains a head, “key,” and a local noun, “cabinets.” This local noun attracts agreement and leads language users to produce a plural verb “are” erroneously instead of “is.”

Research on agreement attraction errors has extensively investigated these errors among native speakers (Christianson, 2015; Franck, Vigliocco, & Nicol, 2002; Hammerly, Staub, & Dillon, 2019; Franck & Wagers, 2020; Lago & Felser, 2018; Parker & An, 2018; Wagers, Lau, & Phillips, 2009). This research attempted to investigate the types of agreement errors that native speakers are sensitive and insensitive to in both comprehension and production. Little research has been done on non-native English speakers (Chen, Shu, Youyi, & Jingjing, 2007; Christianson, 2015; Lago & Felser, 2018) and up to the researcher’s knowledge, none has been done on Arabic non-native English speakers. A growing body of research on agreement errors has been done on L2 learners with different L1 backgrounds, such as German (Lago & Felser, 2018), Swedish (Jackson, Mormer, & Brehm 2018), Korean (Kwon & Sturt, 2016), and French (Franck et al., 2002). However, up to the researcher’s knowledge, none has been done on Saudi non-native English speakers. The goal of this study, thus, is to add to this line of inquiry by examining the agreement attraction errors among Saudi non-native English speakers. It also investigates the quantity and quality of these errors and sheds some light on proficiency level as a crucial factor for interpreting the findings. The study aims to answer the following research questions:
1. What is the difference in processing time between prepositional phrases and relative clauses?
2. How many agreement attraction errors exist in prepositional phrases compared to relative clauses among Saudi L2 English learners?
3. What is the effect of proficiency, if any, on the quantity and quality of agreement errors among Saudi L2 English learners?

Literature Review

Theoretical Understandings

Research has examined whether non-native speakers show the exact developmental stages that native speakers go through while acquiring English. To illustrate, a U-shaped development is traced among learners where, in the first stages of acquiring English, for example, they use the irregular past tense correctly, then they go through a phase of consistent distorted performance due to overgeneralizing the regular past tense rule, and eventually reform it again (Bybee & Slobin, 1982). Siegler, Strauss, & Levin (1981) and Siegler (1983; 2004) argued for the same developmental stages concerning different morphological units. In cognitive psychology, Ervin and Miller (1963) also indicated a U-shaped development regarding comprehension skills where the early stages of comprehension are characterized by the correct integration of different skills.

Research has also examined whether adult L2 learners can develop a nativelike ability to recognize morphological errors during online tasks. Some research has found that L2 learners are less sensitive to agreement errors than native speakers (e.g., Jiang, 2006; Keating, 2009; Sato &Felser, 2007), whereas others have argued that non-native processing is not qualitatively different from native processing (e.g., Foote, 2011; Hopp, 2006; Jackson, 2008; Sagarra&
Herschensohn, 2010; Tokowicz & Warren, 2010). Regarding agreement attracting errors, scholars have defined and conducted some studies to understand the nature and the reason behind these errors. Attraction is also known as proximity concord, and it has been defined by Quirk et al. (1985) as “agreement of the verb with a closely preceding NP in preference to an agreement with the head of the NP that functions as a subject” (p. 757). This definition suggests that attraction results simply from the linear occurrence of an NP between the head noun and the verb and is not sensitive to syntactic structures. This line of research has shown how the linear distance between the head noun and the verb can cause agreement errors. The linear distance hypothesis proposes that constituents between the head noun and the verb are linearly organized, and keeping track of the head noun can be difficult and lead to more agreement errors because of the occurrence of these linear items (Franck et al., 2002).

A closer account of the linear distance hypothesis is the working memory that attempted to explain the source of these errors (Cunnings, 2017). Remembering the controller or the head noun becomes challenging when more items are integrated. In this respect, native and non-native speakers cannot access the controller anymore as they cannot remember it, and this phenomenon occurs during cue-based retrieval (Badecker & Kuminiak, 2007).

However, an exciting challenge can be put forth against the linear distance hypothesis and working memory by using Bock and Cutting’s (1992) fundamental study. The authors found that agreement errors in comprehension among native English speakers were more associated with prepositional phrases than relative clauses. The claim was that native speakers made more agreement errors in “the editor of the history books” than in “the editor who rejected the history books.” These examples can challenge the linear distance hypothesis because the number of items in the phrase with the relative clause is more complex. They should attract more agreement errors than those in the prepositional phrase. Native speakers seemed to perceive agreement correctly with the relative clause. Examples, as such, can also contradict the working memory proposal because the presence of a relative clause is supposed to demand more activities by the brain. Bock and Cutting (1992) argued that there is an organization of a “clause packaging” where local nouns with mismatching number agreements interfere and cause errors if they are linearly or simultaneously coded in the same clause, such as the case of the sentence with the prepositional phrase above. Local nouns in relative clauses should not pose problems because they are encoded in a different clause than that of the controller or the head noun. This view, also known as, the clause packaging hypothesis, is referred to by Franck et al. (2002). Processing of language production syntactically takes place in two steps following this perspective. First, it assumes relating grammatical characteristics to abstract lexical items, and the second involves organizing them in left-to-right order. Scholars think that agreement takes place first. Attractors or local nouns in relative clauses should not attract errors as they are processed in different stages. “Babies” is supposed to attract agreement errors in the sentence “The claim (that wolves were stealing babies) was rejected” (Franck et al., 2002, p. 375). However, it did not do so because it is positioned in a different clause than the phrase “the claim was rejected.”

Previous Research on Agreement Attraction Errors

Bock and Cutting (1992) differentiated between two records for the interaction of agreement errors similar to the two hypotheses mentioned above. The sequential record is designed after an augmented transition network model of the parsing of irregular conditions. It proposes that the controller is held in working memory until the point in the string at which an attractor shows
Agreement Attraction Errors among Saudi Non-Native English Speakers

Aljuaythin

up. The second theory, advanced from a hierarchical model of language production, predicts that controllers and attractors within the same clause are concurrently specified. Using a methodology to elicit verb agreement errors in speech among native English speakers, the researcher found that agreement errors were more common after phrases than clauses that isolated the head word from its attractor. The researchers also used the experiment to check agreement comprehension errors, and they found that longer phrases attracted more errors, whereas longer clauses did not produce such errors.

Franck et al. (2002) compared agreement attraction errors in English and French using a forced-choice task for sentence production. The syntactic structure of the errors was explained using two accounts: the local noun’s distance to the verb in the linearized sentence (linear distance hypothesis) and the processing simultaneity of the head and local nouns in the same clause (clause packaging hypothesis). Using items with double modifiers next to the controller, the study reported that intermediate modifiers attracted more errors than preverbal modifiers, contrary to both accounts. The study was concluded by suggesting that the syntactic distance between the interfering noun and the head noun at a stage where encoding grammatical features in syntactic units are organized in hierarchical structures determines attraction.

Lago and Felser (2018) examined attraction errors among native German speakers and Russian learners of German. In this respect, the study examined working memory among native and non-native speakers. Two hypotheses on whether grammatical distance to the subject resulted in more errors than linear distance to the verb were tested using a production forced-choice task. Two types of modifiers were presented to differentiate between linear and grammatical distance: embedded and coordinated constituents. The results showed that native and proficient German speakers exhibited similar attraction errors where embedded phrases resulted in more errors than coordinated constructions.

Similarly, Patson and Husband (2016) used a forced-choice task among native English speakers to examine agreement attraction errors in comprehension. They noticed that, although mismatches in number between head nouns and local nouns lead to more agreement errors, these errors can be reduced when the local noun phrase has a plural feature. They concluded that the comprehenders’ interpretations of sentences are usually inaccurate to the linguistic input in complex noun phrases.

Using a different approach, Chen et al. (2007) examined the Event-Related Potential (ERP) responses of a subject-verb agreement by tracking the participants’ eye movement. The performance of Chinese non-native and native English speakers was compared. In the processing of syntax, the findings revealed that late second language learners show distinct ERP responses from native speakers when syntactic characteristics are lacking in their first language. However, their patterns of behavior are close to those of native speakers. The conclusion supported the claim that language-specific experiences with the first language influence the neural processing structure in the second language.

The literature survey showed little had been done on the agreement errors of non-native English speakers, mainly Arabic English learners and specifically Saudi non-native speakers of English. This paper examines agreement errors among Saudi non-native English speakers to investigate whether local nouns in prepositional phrases attract more agreement errors than local nouns in relative clauses. Some have examined it in the literature using the sequential record and the hierarchal model (Bock & Cutting, 1992). Others have explored it using the same understandings but with different terminologies, such as the linear distance hypothesis and the
clause packaging hypothesis (Franck et al., 2002). The current study uses the latter’s orientations to define agreement errors throughout the analysis as it is more updated than the former approach. It examines the quality (whether errors occur more in prepositional phrases or relative clauses) and the quantity of these agreement attraction errors. It also incorporates the language proficiency of the participants to interpret the results. The study adopts a psycholinguistic production experiment similar to that in Lago and Felser (2018), where the participants are provided with the items in a forced-choice task and are asked to choose either singular verb (is), or plural verb (are) to complete the items. In this respect, their production skills are assessed without articulating the verb, as sound software cannot sometimes be trusted.

**Method**

This section describes the method used in the study to collect data. This study uses an online psycholinguistic experiment (see the procedure below for more information) that collects reaction time from the participants for two reasons. First, the participants were enrolled in a virtual class, so using an online experiment suits them better than asking them to come to campus. Second, online psycholinguistic experiments have proved to be more reliable than paper and pencil exams because they measure and interpret how and where processing difficulty takes place by collecting time spent regressing on an element.

**Participants**

Participation in this study was based on voluntary sampling. Voluntary sampling was used to ensure valid and reliable conclusions since only those interested in the study could participate, and those not interested did not have to join the study. The researcher sent the study’s link to all second-level female students in the Department of English Language and Literature at King Saud University in 2022. The researcher chose second-level students for two reasons: their proficiency results from the common year, a semester they took before enrolling in their preferred majors, can be used in the study, and their answers were based on their English knowledge and not a result of explicit instruction because there is a lesson on complex noun phrases in the Course ENG 106 that second-level students are supposed to take during the final weeks of the semester.

Overall, 59 students participated in the study. The researcher excluded one participant because she reported that Arabic is not her native language. They spoke Arabic as their first language and English as a second language. The average age of the participants was from 19 to 20. Regarding the years of learning English, 23 participants have been learning English for more than nine years, 17 participants for four years, 9 participants for five years, and 9 participants for six years. Proficiency levels ranged from A to C. It was mentioned in the curriculum framework description of the common year that proficiency levels are assessed using the Common European Framework of Reference. Thus, level A represents the beginner level, referred to as A1. On the other hand, B means elementary, referred to as A2, and C is for intermediate, referred to as B1. Ten participants reported being in level A, 26 in level B, and 22 in level C.

**Research Instruments**

The current study uses a forced-choice task similar to that of Lago and Felser (2018), where participants are provided with complex noun phrases on a screen, and the researcher asks them to choose between “is” or “are.” For the exact noun phrases in each item, 32 sentence preambles were adapted from Bock and Cutting (1992) to examine the difference between prepositional phrases
and relative clauses in attracting agreement errors. Further measures needed to be taken when adapting their stimuli since the researcher administered their study on native speakers; this is to ensure that the participants in this study understood all the vocabulary used in the preambles and that any wrong answer is not provided because of ill-understanding. The researcher checked all the vocabulary in the preambles in the Cambridge English Vocabulary List, which provides the common words appropriate to the beginner, elementary, and intermediate levels of the Common European Framework of Reference. These are the levels expected of the participants based on their proficiency levels.

Every preamble consisted of a complex subject phrase containing two noun phrases. One was the head or controller (the first noun phrase), and the other was the local or attractor (the second noun phrase). The attractor was part of a prepositional phrase constituent or a relative clause, which functioned as a postmodifier for the controller. The controller was always singular, and the attractor was always plural to allow for a deeper analysis of the phenomenon (Bock & Cutting, 1992; Franck et al., 2002). Two conditions were represented for each noun phrase with the controller: one with a prepositional phrase postmodifier and the other with a relative clause postmodifier, as shown in the examples below:

1. The booklet from the British government agencies
2. The booklet that described the government agencies

In this respect, extra validity measures are considered. This will directly examine whether prepositional phrases attract more agreement errors than relative clauses while holding other factors constant, such as using the same head noun, the same number of syllables, and the same stress patterns. It is essential to note that items with the exact controller noun phrase were not consecutively presented. Items with different controller noun phrases separated this sequence because giving the same item with different conditions (i.e., one for prepositional phrases and the other for relative clauses) can affect the reliability of the data. It will seem like the participants are allowed to revise the controller noun phrase. The examples below further illustrate this point.

1. The confession of the famous television interviewer
2. The advisor who directed the students
3. Filler
4. The advisor for the chemistry students
5. The confession that involved the television interviewers
6. Filler

The researcher also used fillers to distract the participants from the study’s objective, which is a testing agreement in complex noun phrases, as it was essential to judge how they process language instantly, resembling a real-life situation. That is not where they thoroughly think of the correct answer. The researcher prepared the distractors, and they tested the participants’ knowledge of count and noncount nouns. A distractor was used between every two consecutive preambles.

**Research Procedures**

The researcher built the experiment using Gorilla, a free, online experiment builder that collects accurate reaction times. The participants can take the experiment without being present in a language lab with this online tool. The researcher did a pilot trial of the experiment to make sure that everything looked on the screen as expected. The experiment consisted of three parts. In the first part, the participants’ informed consent was obtained, and some facts about the study were presented. If the participant agreed to take the study, the participant would proceed to the next part, asking for general demographic information...
to understand the sample better. The third and last part was the main experiment, and the researcher presented a forced-choice task to the students. Only one sentence preamble was shown on the screen, and the participant was asked to choose between the singular verb “is” in the bottom left of the screen or the plural verb “are” in the bottom right for each preamble. Once the participant selected the answer, the participant would proceed to the next; the participant could not return to a previous item. The singular verb “is” was always the correct answer since all controllers were singular. For every preamble, the participants were given 60 seconds with a countdown icon to show the time left to decide. The researcher sent the link for the experiments in week six of the academic year 2022 to the participants in the chat section during the first 20 minutes of their virtual ENG 106 class. The participants were asked to click on the link and answer the questions during class time to ensure that students took the experiments seriously. The researcher assured the students that their answers would be used for research purposes and would not affect their achievement in the course. The researcher then statistically analyzed the responses using R, a software for data analysis.

Results
This section aims to answer the three research questions related to the reaction time of processing prepositional phrases and relative clauses, the number of errors by type, and the effect of proficiency level on the quantity and the quality of errors identified earlier.

Reaction Time in Prepositional Phrases and Relative Clauses
This section reports the average reaction time in milliseconds (ms) needed for answering items with prepositional phrases and relative clauses, as shown in Table One. Items with prepositional phrases require slightly more time than relative clauses because the average for prepositional phrases is marginally higher than relative clauses, accounting for 7251 and 7020 ms, respectively.

<table>
<thead>
<tr>
<th>Item Quality</th>
<th>Mean Reaction Time</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepositional phrases items</td>
<td>7252</td>
<td>27932</td>
</tr>
<tr>
<td>Relative clauses items</td>
<td>7020</td>
<td>27716</td>
</tr>
</tbody>
</table>

Performing a statistical test of the difference between types, like a paired sample t-test, is not possible since the Standard Deviation (SD) of both types is very close to each other. It can be concluded that, while prepositional phrase items take slightly more time, the difference between prepositional phrase and relative clause items is not statistically significant. Processing both types is similar concerning difficulty among the participants of Saudi non-native English speakers. Figure 1 below further illustrates the mean reaction time taken for each item.

Figure 1. Reaction time for every item by error type
The figure further proves that prepositional phrase items take longer comparable to relative clause items. Prepositional phrase items ranged from almost 16000 to 4000 ms, whereas relative clause items ranged from 13000 to 4000 ms. It is also clear that the participants took more time at the beginning than at the end. Some items took more time than others. The results indicated that they consisted of more words than the items that took less time for both categories of prepositional phrases and relative clauses. For instance, “the confession of the famous television interview” and “the confession that involved the television interviewers” consisted of more words than the other items because the attractor “interviewers” is further modified by another noun, “television.” This might be more complex to process than a preamble with a simple attractor, such as “the picture that embarrassed the politicians.” Thus, while processing prepositional phrases consumes more time, the attractor nature (whether simple or complex) also results in more time to process. Table two below presents examples of simple and complex attractors.

Table 2. Examples of simple and complex attractors

<table>
<thead>
<tr>
<th>Simple Attractor</th>
<th>Complex Attractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The consultant for the growing firms</td>
<td>3. The bright light in Doctor Smith’s examination rooms</td>
</tr>
<tr>
<td>2. The consultant who advised the firms</td>
<td>4. The bright light that lit the small examination rooms</td>
</tr>
</tbody>
</table>

**Number of Errors in Prepositional Phrases and Relative Clauses**

Table three below shows the numbers and percentages of errors among the participants by their quality and quantity, either in prepositional phrases or relative clauses. Both errors frequently occurred in the experiment, but prepositional phrase errors were slightly higher. 36% of errors were identified for prepositional phrases, accounting for 337 items, and 33% of errors were assigned for relative clauses, accounting for 312 items.

Table 3. Quantity of errors in prepositional phrases and relative clauses

<table>
<thead>
<tr>
<th>Error Type</th>
<th>Number of Errors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errors in prepositional phrases</td>
<td>337</td>
<td>36</td>
</tr>
<tr>
<td>Errors in relative clauses</td>
<td>312</td>
<td>34</td>
</tr>
<tr>
<td>Correct guesses</td>
<td>280</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>929</td>
<td>100</td>
</tr>
</tbody>
</table>

It is clear that the number of errors in both categories is very close to each other, so both relative clauses and prepositional phrases can be considered within the same level of difficulty. Thus, both types of errors were equally frequent in the experiment. Figure two illustrates that the means are very close to each other: 5.8 for prepositional phrases and 5.3 for relative clauses. This also further proves that processing both prepositional phrases and relative clauses is very close to each other among the participants.
Agreement Attraction Errors among Saudi Non-Native English Speakers

Proficiency Level by Error Quantity and Quality

Table four below presents the number of errors and their types by proficiency level. The researcher traced a U-shaped trend by comparing the quantity and the quality of errors by proficiency level. Indeed, level A participants seem to have the least number of errors for both prepositional phrases and relative clauses. Group B, on the other hand, seems to have the highest number of errors for both types, but this number decreases with group C. In other words, a U-shaped trend for agreement attraction errors is identified among the participants who are Saudi non-native English speakers. Beginners start to grasp the concept of agreement and use it; then, as they develop to elementary, it becomes distorted. Later, they begin again to learn how to manipulate it as they advance to the intermediate level. Table four also shows that the number of errors in prepositional phrases is higher among the A and B groups but lower among the C group. However, the difference is significant since both types for each proficiency level are very close, if not similar.

Table 4. Quantity and type of errors by proficiency level

<table>
<thead>
<tr>
<th>Proficiency level</th>
<th>A (Beginner)</th>
<th>B (Elementary)</th>
<th>C (Intermediate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errors in prepositional phrases</td>
<td>51 (3.7)</td>
<td>170 (5.9)</td>
<td>116 (5.4)</td>
</tr>
<tr>
<td>Errors in relative clauses</td>
<td>37 (4.8)</td>
<td>155 (5.9)</td>
<td>120 (5.1)</td>
</tr>
<tr>
<td>Total of errors</td>
<td>88 (8.8)</td>
<td>325 (12.5)</td>
<td>236 (10.7)</td>
</tr>
<tr>
<td>Number of participants</td>
<td>10</td>
<td>26</td>
<td>22</td>
</tr>
</tbody>
</table>

A further step was to calculate the frequency of errors to ensure that the difference in the number of errors was valid and not only a result of the difference in the number of participants in each proficiency group. Figure 3 below illustrates the frequency of errors expected for every 10 participants for each proficiency group. The frequency count also proves that A-level participants have the most minor agreement errors (88 errors). Group B has the highest frequency of errors (125 errors). The frequency of errors in Group C is between Groups A and B (115 errors).
Agreement Attraction Errors among Saudi Non-Native English Speakers

Figure 3. Error frequency by proficiency level

The researcher used a two-way ANOVA to examine further the statistical difference between proficiency groups concerning the two types of errors, as shown in Table five below.

Table 5. Two-Way ANOVA for statistical difference

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Sum Sq</th>
<th>Mean Sq</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency</td>
<td>2</td>
<td>53.2</td>
<td>26.613</td>
<td>2.034</td>
<td>0.136</td>
</tr>
<tr>
<td>Error type</td>
<td>1</td>
<td>5.4</td>
<td>5.388</td>
<td>0.412</td>
<td>0.522</td>
</tr>
<tr>
<td>Residuals</td>
<td>112</td>
<td>1465.3</td>
<td>13.083</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table above suggests that no statistical relationship exists between proficiency level and error type among the participants of the current study since the P-value > 0.05 for both factors and the F-value < 3. To further test the null hypothesis, Tukey multiple comparisons of means were also used to test whether any statistical difference exists between the proficiency groups and the error types and the relationship between them.

Table 6. Tukey multiple comparisons of means

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Sum Sq</th>
<th>Mean Sq</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency</td>
<td>2</td>
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<tr>
<td>Error type</td>
<td>1</td>
<td>5.4</td>
<td>5.388</td>
<td>0.412</td>
<td>0.522</td>
</tr>
<tr>
<td>Proficiency by error</td>
<td>2</td>
<td>9.1</td>
<td>4.551</td>
<td>0.344</td>
<td>0.710</td>
</tr>
</tbody>
</table>

As with the two-way ANOVA test, the Tukey test also proves the null hypothesis, where no statistical difference exists between the proficiency group or the error types. The Tukey test likewise does not show a relationship between proficiency groups and error types. As shown in Table six, the P values are 0.136 for proficiency, 0.522 for error type, and 0.710 for the relation between the two factors, and they are all >0.05. It can be suggested that they are within the same difficulty level among the participants since no statistical difference existed between the two types of errors.

Discussion

This section aims to answer and discuss the three research questions raised earlier by supporting the arguments from previous literature. The subsections are arranged according to the research questions. Each subsection below relates to a research question.
Reaction Time

The current study suggests that items with prepositional phrases consume more time than items with relative clauses. In other words, processing embedded phrases consume more time among the participants of Saudi non-native English speakers than packed clauses. Additionally, this study is consistent with Fine, Jaeger, Farmer, and Qian’s (2013) proposal that participants speed up as they become accustomed to the experiment’s nature and objective. If they slow down, it might be because the experiment became confusing to them. The participants in the current study took more time initially, but after a while, they started to speed up. The items that took longer had complex attractors (i.e., the attractor had a noun modifying it). This suggests that participants might have been confused and needed more time to judge whether the agreement should fall on the controller, the attractor, or the noun modifying the attractor. This could lend support to the linear distance hypothesis and the working memory proposal and is consistent with the previous suggestion that, as more items are being embedded in the sentence, participants are confused about the noun that should control the agreement. Increasing the length of the postmodifier could limit the capacity of the memory to access the controller of the agreement. It can be argued that processing agreements draw on the memory’s ability to hold information regardless of its quality, whether prepositional phrases or relative clauses. In other words, maximizing the number of items between the head noun and the attractor results in more time to process both relative clauses and prepositional phrases. Therefore, it can also be argued that the complexity and the length of postmodifiers cost more time to process agreements. While Bock and Cutting (1992) suggested that prepositional phrases attracted more agreement errors than relative clauses, the current research indicates that the length and complexity of the attractor, whether in prepositional phrases or relative clauses, consumes more time in processing.

Quantity and Quality of Errors

Both types of errors frequently and almost equally occurred in the current study. Bock and Cutting (1992) and Franck et al. (2002) suggested that clause attractors yield fewer agreement errors than phrase attractors among native and non-native speakers. However, the present study found that both errors were similar in attracting agreement errors. This unexpected finding could be explained by the proficiency level of the participants of the present study. While the participants were assigned different groups based on their proficiency levels (A for beginners, B for elementary, and C for intermediate), they were not considered to be far away from each other. As mentioned, these three levels translate to A1, A2, and B1 in the Common European Framework of Reference. Thus, no statistical difference was identified among the groups. The proficiency levels of the participants could also explain both the reason why prepositional phrases and relative clauses attracted a similar number of agreement errors and the high number of errors in the experiment. Almost two-thirds of the items were identified as errors in agreement compared to the number of correct guesses, regardless of the nature of the attractor.

Another probable reason for the high number of errors could be the local nouns always being plural and the head nouns always being singular in the current experiment. This variation in the plurality of the head noun and the attractor, where the head noun is singular, and the attractor is plural, and not the other way around, produced asymmetry and yielded an impressive number of agreement errors. This finding is consistent with earlier studies (Bock & Cutting 1992; Bock & Miller, 1991) that suggested that singular head nouns and plural local nouns attract more agreement errors than plural controllers and singular local nouns. Such a conclusion remains preliminary for
Agreement Attraction Errors among Saudi Non-Native English Speakers

Aljuaythin

the present study since it did not test the other condition of plural controllers and singular local nouns.

The current research proposes a challenge to the clause packaging hypothesis. Research on the clause packaging hypothesis stated that agreement attraction errors are more frequent if local nouns are posited in the clause. On the other hand, it is expected to be less if the same is positioned in another clause (Bock & Cutting, 1992; Lago & Felser, 2018). Contrary to such a proposition, the present study found that both embedded phrases and packed clauses attracted a similar number of agreement errors. This unexpected finding could be explained by the proficiency level of the participants of the current study. Since the participants of the present study were beginners to intermediate non-native English speakers, they could not have seen the boundaries of each clause yet. The subjects in Bock and Cutting’s (1992) study were native speakers who were intuitive to see the boundaries of each clause. Thus, attractors in embedded phrases and packed clauses hold the same confusing position. The fact that the statistical test showed no difference between the errors in prepositional phrases and relative clauses supports the finding further, although this conclusion is still preliminary.

In this respect, the present study supports the linear distance hypothesis. The participants who were Saudi non-native English speakers could not hold information among the multiple layers of encoding regardless of whether this encoding occurred in different phrases or clauses. The occurrence of items between the head and the verb made it more challenging to identify the head that should hold the agreement. Thus, it led to more errors. Additionally, the participants could not access the head as they moved to read the following items, although the current study presented the items sentence by sentence on the screen rather than word by word or phrase by phrase. The occurrence of more items consumed more time to process and resulted in more agreement errors because the participants probably could not remember the controller for the agreement. Consequently, the present study supports the working memory proposal because packing longer items, whether in phrases or clauses, demanded more activities by the brain and resulted in more agreement errors. This is because the participants could not remember the head noun anymore.

Implications for a U-shape figure for Agreement Errors Development

The current study identified a U-shape figure for agreement error development. Beginner participants seemed to perceive agreement initially; then, such ability disappeared as they advanced to elementary. Nevertheless, it reemerged among the intermediate participants. The U-shaped development can still show that an evolvement for processing language is taking place. However, it cannot explain the exact nature of the underlying process of language (Siegler, 2004). Siegler et al., (1981) and Siegler (1983) argued that the first stages of accurate performance are based on a lack of knowledge, followed by consistent incorrect performances due to incomplete knowledge. Later, proper performances are traced based on advanced knowledge and experience. Bybee and Slobin (1982) argued that children’s first stages of correct performances of the English irregular past tense are based on a lack of knowledge of the rules. It is then followed by a period of overgeneralization in performance because of their incomplete understanding of the rules to be reformed again in later stages. Research on U-shape development has proven to exist in cognitive psychology, such as motor skills development and language-related functions. For instance, Ervin and Miller (1963) suggested that a U-shaped development exists concerning comprehension skills, where the first stages are characterized by the reintegration of different skills and subsystems. It is then followed by a stage of disorganization before they can pick up the abilities again. Such
development can be traced in the present study, where beginners seemed to perceive and hold the head noun that should control the agreement while reading the other items. Then this performance became distorted and disorganized at the elementary level and was later reformed again among those at the intermediate level. It is still too early to suggest the existence of such development in agreement attraction errors, although such development was identified in the present study. Future research can investigate this further by analyzing the development of individual cases in a longitudinal framework to gain a better insight into the nature of the U-shaped development in agreement attraction errors.

**Conclusion**

This study analyzed the agreement attraction errors produced by Saudi non-native speakers of English. The researcher asked the participants to choose either singular or plural verbs for each presented complex noun phrase in a forced-choice task. Their agreement errors were analyzed regarding their quality, whether in prepositional phrases or relative clauses, and quantity. Additionally, the reaction time needed for the items with prepositional phrases was compared with relative clauses. The researcher likewise analyzed the proficiency level to see its effect on agreement attraction errors. While previous studies argued that agreement errors are higher in phrases than clauses, the present research indicated no such difference among the participants of Saudi non-native English speakers. Both types of errors possess the same level of difficulty. The current study did not aim for generalization. It aimed at providing an in-depth analysis of a phenomenon among Saudi non-native English speakers and addressing a literature gap because no such study has been done in the Saudi context. The fact that the present research ended with challenging findings to the ones found among native and non-native English speakers around the world further proves the lack of this specific topic in the literature done on Saudi non-native English speakers. Future research is needed to see whether the native Arabic could affect agreement attraction errors in English as a second language.

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Agreement Attraction Errors among Saudi Non-Native English Speakers

Aljuaythin

English language. London: Longman.
The Effects of Self-Regulated Strategy Development on Writing Skill and Self-Regulated Learning of Thai High School Students

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Abstract
This study was conducted to examine the effects of self-regulated strategy development, an intervention designed to teach writing skills through six steps and four self-regulation skills, on academic English writing skills and self-regulated learning. Additionally, the aim is also to investigate attitudes towards the instruction. Mastering the skills of writing is a challenging task since it requires several integrated skills. There exist several complex difficulties in, for example, creating content, organizing structure, applying writing mechanics, and completing the revision process. Thus, the essential factor is writing instruction which helps learners improve their writing skills. The participants were eleven pre-intermediate students at a senior high school in Thailand who were explicitly taught by self-regulated strategy development instruction in a process consisting of six recursive stages and four self-regulation skill stages. To gather quantitative data, a pretest and posttest were employed. Moreover, to obtain qualitative data regarding the students’ attitudes toward the instruction, a semi-structured interview was used. The findings revealed that the academic writing ability and self-regulation skills of Thai high school students can be enhanced by self-regulated strategy development and that students show positive attitudes towards this type of instruction.

Keywords: Attitudes, self-regulated strategy development, self-regulated learning, Thai students, writing skill

Introduction

Writing skill is challenging to master in the educational sphere. Recently, the significance of writing has greatly surpassed that of other English abilities (Grabe & Kaplan, 1996). For example, school assignments require creating a written piece that serves as a crucial instrument for the development of both intellectual and social aspects (Bruning & Horn, 2000). Starting from the upper elementary grades and beyond, writing serves as an invaluable means to showcase the knowledge that students have attained (Graham, 2006; Prior, 2006). Nonetheless, attaining proficiency in writing poses many difficulties since it is not a skill that can be naturally and effortlessly acquired.

In a Second Language (L2), writing necessitates the mastery of numerous interconnected skills, including the ability to formulate, organize, and present information. Therefore, obtaining success in writing is widely acknowledged as a daunting task (Hashemian & Heidari, 2013). Another aspect to consider is that writing comprises essential components that deserve recognition. Learners should be aware of the norms of writing, encompassing elements such as grammar, vocabulary, and punctuation, as well as analyzing the target audience (Baker et al., 2009). While there are students who can critically conclude from their acquired knowledge, some of them encounter difficulties when it comes to synthesizing information from a source into coherent written language. As a result, the development of English writing skills poses a challenging situation and constitutes a significant area of research interest.

Following this, self-regulation is one of the prominent models that hold a crucial role in enhancing the quality of writing. The term self-regulation is conceptualized as a multidimensional process in which a learner endeavors to regulate cognition, motivation, behavior, and the learning environment to achieve improved outcomes in terms of learning and performance (Bandura, 1986; Dinsmore, 2008). Numerous studies in the literature have demonstrated that self-regulation is a fruitful strategy to attain proficiency in various domains, including the process of language acquisition (Graham & Harris, 1994; Zimmerman & Risemberg, 1997). Regarding writing, self-regulation also offers significant benefits.

Even individuals who have been consistently studying English for a significant duration often experience stress and discomfort when tasked with writing assignments. Furthermore, attaining mastery of writing skills necessitates a substantial level of self-regulation because individuals need to independently plan (Zimmerman & Riesemberg, 1997). Therefore, these assumptions indicate that self-regulation significantly affects the writing process. Moreover, it is widely recognized that writing is a challenging task due to the essential requirement of self-regulation, integrated skills, and focused attention to effectively control and manage environmental factors and processes (Kellogg, 1987; Ransdell & Levy, 1996; Scardamalia & Bereiter, 1986).

The teaching method called Self-Regulated Strategy Development (SRSD) aims to improve students’ learning, application, and adoption of writing strategies effectively and efficiently. SRSD is a scientifically validated model that assists students in writing endeavors using cognition and self-regulation procedures (Case et al., 1992). The instruction comprises three operations:

(a) explicitly teaching using six progressive steps of instruction;
(b) four self-regulation techniques and;
(c) a positive development of students’ attitudes (Harris et al., 2003; Santangelo et
Numerous extensive studies have been conducted on self-regulation by scholars, including researchers such as Harris et al. (1997) and Harris et al. (2006), showing that self-regulation processes positively contribute to the achievement of writing skills. However, little research has been studied to examine each self-regulation procedure within the SRSD instruction, specifically in the context of Thailand, particularly at the high school level. Thus, this study adds to the existing body of literature in this area by examining the effectiveness of self-regulation strategies in enhancing students’ writing skills and self-regulation. Consequently, to fill this research gap, the present study seeks to explore the effects of SRSD instruction on academic English writing skills and the attitudes of high school students in Thailand toward the instruction. The study intends to look into the following two research questions:

1. What effects does self-regulated strategy development instruction have on improving the academic English writing skills of high school students in Thailand?
2. What are the attitudes of high school students in Thailand toward self-regulated strategy development instruction in learning writing?

**Literature Review**

This section provides a comprehensive review of writing skills, the SRSD and its influence on writing skills and previous studies conducted in this field.

**Writing Skill**

Writing is defined as a sequence or arrangement of words in a written format to effectively convey intended meanings (Harmer, 2004). According to the findings reported by Grabe and Kaplan (1996), writing is regarded as a set of skills that require continuous development. These skills can be learned through experiences and deliberate practice (p.6). Given the growing significance of writing in students' lives, they are frequently tasked with composing various forms of written work. Initially, this may involve relatively straightforward content, but it progressively evolves into more intricate and sophisticated writing tasks. Unfortunately, the majority of students encounter notable challenges in acquiring, utilizing, and managing the complexities of the writing process. Students encounter common challenges when they need to write. For instance, they lack an adequate understanding of writing, choose and use an inefficient writing approach, lack prior planning, and struggle with creating or formulating ideas (Harris & Graham, 1996; Graham & Harris, 2005). For these reasons, the importance of effective writing pedagogy is further emphasized. Teachers and researchers have primarily focused on writing instruction to find the most efficient methods of teaching that foster the improvement of learners’ writing ability.

**Self-Regulated Strategy Development (SRSD) and Its Influence on Writing**

There has been considerable research dedicated to exploring the theory of self-regulated learning, resulting in significant diversity in its diversity and understanding. Implementing these theories has exerted a noteworthy impact on research and practice across various domains and contexts, especially within the field of education (Boekaerts et al., 2000). This can be cultivated through the implementation of an educational framework known as Self-Regulated Strategy Development (SRSD) where students are given explicit instruction to learn methods (Harris & Graham, 1996). SRSD has been scientifically validated by more than 100 studies as a practical
The Effects of Self-Regulated Strategy Development on Writing Skill

Phramphun & Tangkiengsirisin

approach to teaching writing, consistently demonstrating superior outcomes compared to non-SRSD instruction (Graham et al., 2013). The main emphasis is to offer impactful strategies for effectively managing the writing process, achieved through six stages and self-regulation practices. As pointed out by Saddler (2006), the implementation of self-regulation practices holds significance in facilitating learning and can be developed through instructional methods.

Although various approaches exist for strategy instruction, SRSD stands apart from typical instructional methods in this regard. First, the SRSD model assists students in their writing development by teaching them writing strategies and imparting knowledge of both specific and general writing genres; as a result, students demonstrate a high level of engagement in writing (Harris & Graham, 1992). Second, the instruction not only encompasses writing strategies but also incorporates elements of self-regulation procedures that are advantageous for writing, promoting students’ independence and proficiency as writers. Numerous research studies have indicated that incorporating self-regulatory practices into teaching is highly effective in enhancing the quality of writing (Brunstein & Glaser, 2011; Harris et al., 2006; Zumbrunn & Bruning, 2013).

To conclude, the SRSD instructional model stands out as one of the most effective interventions that significantly contribute to enhancing writing quality, knowledge of writing, utilization of strategies, and students' perceptions. Throughout the instruction, students also acquire an understanding of the components of self-regulatory processes for writing, thereby offering them more excellent prospects to cultivate independent learning skills.

Previous Studies on SRSD and Writing

Presented below is a summary of past studies conducted in various contexts that explore the SRSD model in writing instruction.

In a research investigation carried out by Saddler et al. (2004), the efficacy of the SRSD on writing performance was examined. The variables that were measured as outcomes in the study were personal narrative and story writing. The study involved six participants who encountered challenges in writing. They were taught through SRSD instruction to plan and write a story. The findings revealed a quantitative improvement in the student’s writing proficiency, as evidenced by their ability to independently compose both stories and personal narratives. Kindle and Butterfield (2017) also conducted action research to assess the effectiveness of SRSD in enhancing writing skills. Data was collected through a combination of quantitative and qualitative methods, involving students’ essays, assessments by both students and teachers, and student self-reflection. This study was conducted within eight weeks in a university classroom for ESL located in Cameroon, West Africa. The project was specifically designed to focus on persuasive academic writing. The results revealed a noticeable enhancement in essay writing skills. Additionally, the students' self-reflections indicated a sense of personal improvement in writing throughout the instructional unit.

The previous studies conducted on SRSD and writing in an EFL context exhibited similarities to those undertaken in global contexts, regarding the emphasis of research and the tools employed for research. Fahim and Rajabi (2015) aimed to study to assess the efficacy of SRSD on the persuasive genre, while also examining the motivation of EFL learners towards its implementation. The study involved a group of 30 Persian pre-intermediate writers as the participants. The results showcased scores obtained from various assessments, indicating that this teaching model resulted in the enhancement of writing proficiency. Moreover, the results obtained from the data analysis revealed a significant rise in the participants’ motivation with respect to
foreign language writing.

A study by Yin and Chinokul (2018) researched a group of ten eleventh-grade students in Cambodia. The purpose was to investigate the effects of SRSD on English writing instruction and to explore the perceptions on the matter. The research questions were addressed through a voluntary selection process. Two research instruments were implemented: a writing test and a semi-structured interview. The results found that participants received higher scores on the posttest (M=17.2) compared to the pretest (M=13.1). Their perceptions of the instruction were expressed positively.

At a university in Thailand’s northeast, Weerathai and Arya (2020) investigated the effects of self-monitoring which is one of the self-regulation components in SRSD instruction and peer feedback practices on English essay writing. The instruments consisted of pre- and post-expository writing tests and student logs. The results indicated that self-monitoring and peer feedback techniques were effective methods that ought to be taught to students at all levels.

Naibaho (2021) conducted action research to determine if a self-regulated strategy development method is adequate to increase students’ narrative writing at Teruna Muda School. The results demonstrated that there was a 62% rise in students’ writing scores.

To date, limited research has been conducted to study the relationship between the SRSD approach and writing skills in the context of Thailand, especially at the high school level. Thus, to bridge the gap in the field, this study aims to examine the effects of SRSD on the academic English writing proficiency of Thai high school students while also exploring their attitudes towards this instructional approach.

Methods

In accordance with the research objectives, both quantitative and qualitative data are required to validate the findings. This section presents participants, research instruments and procedures, and data analysis of the study.

Participants

This study involved 11 pre-intermediate senior high school students in Thailand who were selected from a school that specializes in nurturing talented students in science and mathematics. The participants were selected via convenience sampling. All students in this group were assigned to write a narrative essay as part of their coursework in the academic year 2021.

Research Instruments

This study utilized two research instruments: writing tests consisting of pretest and posttest measures, and a semi-structured interview.

To assess if there is any statistical difference in the writing test scores, the writing assessments were conducted as both a pretest and posttest before and after the instructional period. The students were instructed to compose a narrative essay consisting of five paragraphs. To ensure relevance to the context, the rubric for evaluating the essays was adapted and developed accordingly; therefore, the scale used ranged from one (the lowest) to a maximum score of five (the highest). The scores are categorized into five areas, which include organization, development, cohesion, structure, and mechanics.

The semi-structured interviews were used for the qualitative aspect. A total of six students, who met the predetermined criteria, voluntarily participated in this study and remained engaged
throughout the implementation process. They were chosen based on their writing test results, and they were willing to participate and give information.

**Research Procedures**

To answer the addressed research questions, the current research process involves the examination and discussion of three primary phases. The first phase commenced once the participants were assigned to the researcher’s group by the Department of Foreign Languages, with 11 students per class. At the start of the experimental period, they were instructed to complete a writing pretest to evaluate their English writing proficiency. In the next phase, the participants underwent the treatment, which involved receiving SRSD instruction aimed at enhancing their writing and self-regulation abilities. The treatment was conducted for eight weeks. In the final phase, the participants engaged in an interview with the researcher to express their perspectives and attitudes toward the instruction.

**Data Analysis**

The Wilcoxon signed-rank test was used to analyze the pretest and posttest results. The purpose of using this procedure was to compare the two sets of scores. It is also suitable for analyzing samples with fewer than 30 participants. As mentioned previously, the data from semi-structured interviews and in-class observations was analyzed qualitatively to gain a comprehensive understanding of the participants’ attitudes and to triangulate the results from writing tests. To explore the qualitative data and derive significant insights, it was submitted to content analysis.

**Results**

**Question One:**

In accordance with the initial research question, this analysis aimed to compare the differences in performance between the pretest and posttest results. Table one provides a comparison of the progress in academic writing skills between the pretest and posttest stages, as an outcome of the SRSD instruction. The distinction between the two sets of tests was examined. It is used to compare two paired groups. The Z value was 2.936 and the p-value (2-tailed) was .003, which was less than .01. This result suggests a statistically significant variation in writing proficiency following the intervention. In simple terms, it indicates that the students significantly improved their academic writing.

Table 1. Pretest and posttest results for academic writing skill

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest – Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>0</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>11</td>
<td>6.00</td>
<td>66.00</td>
</tr>
<tr>
<td>Ties</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Posttest < Pretest
b. Posttest > Pretest
c. Posttest = Pretest

Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>Posttest - Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.936</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.003</td>
</tr>
</tbody>
</table>
The Effects of Self-Regulated Strategy Development on Writing Skill
Phrampun & Tangkiengsirisin

**p < 0.01
a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

However, upon closer examination of the scores categorized by each element of assessment as shown in Table Two, it is seen that the highest average score in the posttest was attained in the domain of organization (X̄ = 4.00). Meanwhile, it is noteworthy that this part of the assessment also exhibited a standard deviation (S.D.) of 0.52, suggesting some variability in the scores. Nonetheless, when comparing each assessment component carefully, it is apparent that the lowest score for the posttest (after treatment) was 2.64 (X̄ = 2.64, S.D. = 0.50) for the mechanics assessment.

Table 2. Result between the pretest and posttest (Classified by each element of assessment)

<table>
<thead>
<tr>
<th>Element of assessment</th>
<th>Type of test</th>
<th>n</th>
<th>X</th>
<th>S.D.</th>
<th>Wilcoxon Signed Rank Test (Z)</th>
<th>p-Value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Pre-test</td>
<td>11</td>
<td>1.94</td>
<td>0.95</td>
<td>-2.938</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>4.00</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>Pre-test</td>
<td>11</td>
<td>2.30</td>
<td>0.74</td>
<td>-2.938</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>3.76</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohesion</td>
<td>Pre-test</td>
<td>11</td>
<td>2.24</td>
<td>0.72</td>
<td>-2.965</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>3.48</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>Pre-test</td>
<td>11</td>
<td>2.42</td>
<td>0.45</td>
<td>-2.598</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>3.03</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics</td>
<td>Pre-test</td>
<td>11</td>
<td>2.06</td>
<td>0.49</td>
<td>-2.555</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>2.64</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Pre-test</td>
<td>11</td>
<td>10.97</td>
<td>2.73</td>
<td>-2.936</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td></td>
<td>16.91</td>
<td>2.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question Two:
For the interview session, every participant was required to provide responses to five questions.
1) Have you ever faced any challenges in writing? If yes or no, could please talk about it?
   The interview transcripts revealed that all of the interviewees encountered difficulties in writing. These challenges were categorized into five areas: organization, grammar, transcription, vocabulary, and content generation. Over 80% of the participants encountered difficulties with organization, as they found it challenging to arrange their ideas coherently and logically. Following closely behind are difficulties related to grammar.

2) Describe your feelings during studying the course (e.g., enjoyed, relaxed, terrified, anxious).
   The statements indicated that initially, all participants experienced anxiety, albeit in various aspects. Two of them acknowledged writing as a challenging skill, but as the course progressed, they gradually became more at ease and less anxious.

3) Is it helpful for you to use the SRSD instruction in learning writing?
   Every interviewee concurred that the utilization of the SRSD instruction in teaching writing proved to be highly beneficial. They acknowledged that this approach aided them in enhancing their English academic writing skills.

4) In your opinion, does SRSD instruction make you improve your writing skills? How?
All participants expressed that the implementation of the SRSD instruction had a notable impact in developing their academic writing skills, particularly in terms of improving organization. This instruction provided them with a method for structuring and arranging ideas effectively. They gained an understanding of how to engage readers by empathizing with their perspectives. Furthermore, recognizing the audience’s needs became crucial in their writing process, as it guided them in determining the appropriate information to present.

5) Is there anything else you would like to suggest?
Out of all the participants, one individual expressed a desire for increased involvement in group work activities.

Discussion

Question One:
The research results revealed a significant difference in writing achievement after the experimental treatment, with a statistical significance of .003. A noticeable contrast was observed when comparing the scores from the pretest and posttest, demonstrating a substantial enhancement in the student's writing after they received SRSD instruction, consisting of six iterative stages. This study aligns with the research conducted by Harris and Graham (1996), which found that the SRSD instructional approach aids students in developing writing proficiency and fostering mastery of cognitive processes. Furthermore, this study demonstrated alignment with the research studied by Fahim and Rajabi (2015), Yin and Chinokul (2018), Weerathai and Arya (2020), and Naibaho (2021). To illustrate, Fahim and Rajabi (2015) investigated the effects of SRSD on writing skills among 30 Persian pre-intermediate writers. In this particular study, the participants consisted of Thai pre-intermediate learners who were EFL learners and indicated that the implementation led to enhanced writing performance among EFL learners. Upon analysis of each component of the assessment, including organization, development, cohesion, structure, and mechanics, it was observed that the first four elements showed significant improvement, whereas mechanics demonstrated only a slight enhancement when compared to the pretest. (pretest = x̄ 2.06 and posttest = x̄ 2.64). This could be attributed to several factors. Firstly, the utilization of the PLAN+WRITE mnemonic strategy for essay writing aims to instruct students to plan, draft, and revise their written work. Additionally, this approach aims to provide and equip students with the essential knowledge and skills to facilitate these processes successfully (De LaPaz & Graham, 2002). However, mechanics had limited significance in this regard.

Question Two:
The results derived from conducting the semi-structured interview were consistent with the final primary objective of SRSD, as the participants displayed positive attitudes towards the instructional model employed for teaching English writing. The data obtained from the interviews also concurred with the findings obtained from writing test scores. Initially, concerning their writing abilities, students encountered challenges. However, after engaging with the instruction, they developed a heightened awareness of their writing skill. Participants highlighted the effectiveness of this strategy, which aided them in enhancing their writing development. These strategies proved instrumental in facilitating the organization of their written work and increasing their writing speed. Lastly, one participant specifically mentioned that the SRSD instruction helped them consider audience analysis during the writing process. Research conducted by Harris et al. (2010) as well as study by Graham and Harris (2016) aligns with the outcomes observed in the
present study. These studies similarly demonstrated that students' writing proficiency improved through thorough implementation of appropriate planning, drafting, and revising strategies. Students also expressed their sentiments regarding the English class, indicating that they had acquired confidence in writing in English and felt more at ease compared to their initial experience in the course. The current study provides insight into the potential of the instruction, emphasizing its significant role in enhancing the motivation of EFL learners. In particular, the findings revealed that the utilization of SRSD in writing instruction is highly likely to promote learners’ intrinsic motivation to write. This suggests that through self-regulated learning, interventions not only enhance academic performance but also strategically and effectively control behavior and sustain motivation (Dignath et al., 2008).

Conclusion
This study examines the effects of self-regulated strategy development and investigates the attitudes toward the instruction. As evidenced by the research findings, this approach has a beneficial impact. The findings demonstrate that the implementation of the SRSD instruction, along with the teaching of specific strategies, can improve writing proficiency, self-regulation skills, and positive attitudes of pre-intermediate high school students. Self-regulation strategies prove to be a valuable resource for novice writers like pre-intermediate students, as they aid in the development of their knowledge as well as experience, enabling them to effectively apply general and specific writing strategies to a specific genre in a foreign language.

Recommendation for Further Studies
The limitations of the current study provide implications for future research regarding the advancement of academic writing skills and self-regulation strategies. Firstly, further studies should include larger sample sizes to enhance generalizability. Secondly, a true experimental design should be conducted for a more rigorous investigation. By employing this design, researchers would be able to compare the data of the strategy instruction between the two groups. Thirdly, as emphasized by Harris et al. (2011), it is crucial to acknowledge that acquiring proficiency in the writing process is a time-consuming endeavor, requiring an extended duration for expertise to develop.

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The Effects of Self-Regulated Strategy Development on Writing Skill

Phramphun & Tangkiengsirisin

(Weon, Mass.), 5(1).


Development, Validity, and Reliability of a Theme-based CBI Vocabulary Module for ESL Post-secondary Tourism Management Students at an English-medium University

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Abstract
Inadequate English vocabulary knowledge hampers English-medium university students’ comprehension of lecture and reference materials. Thus, the researchers aimed to specifically develop an intervention for vocabulary knowledge enhancement, which is a theme-based content-based instruction vocabulary module for first-semester Diploma in Tourism Management students using the ASSURE model. The rationale behind the vocabulary module development is that students tend to acquire vocabulary faster when they learn it through a familiar and meaningful context. Upon completion of the module’s development, it was examined for validity and reliability. Content validation of the module was evaluated by four experts using the Content Validity Index and Percentage Calculation Method. Meanwhile, the module’s reliability was tested in a pilot study using Cronbach’s alpha test on reliability questionnaire results and paired sample t-test comparison of pre and post-test scores of students’ vocabulary knowledge. The pilot study involved 20 students with varied English language proficiency levels at an English-medium university in Malaysia. Findings of content validation by four experts and module validation by the pilot study indicate that not only does the module have high validity and good reliability, but also succeeds in increasing the students’ post-test vocabulary knowledge scores compared to their pre-test scores. Overall, this study contributes empirical evidence for English as a Second Language (ESL) vocabulary module development. It also proves that a valid and reliable module must be developed by referring to an instructional design model, reviewed by subject matter experts, and tested with the target audience through a pilot study.

Keywords: Module development, vocabulary, reliability, theme-based content-based instruction, validity

Introduction

Despite being the second language in Malaysia, English language, instead of Bahasa Malaysia, is now commonly used as a medium of instruction at most higher education institutions. This scenario happens due to the higher education institutions’ intention to attract more international students, enhance the competitiveness of domestic students in the global markets, and raise their international ranking (Aminudin et al., 2023). For at least 12 years, Malaysian students have been learning English language as a compulsory subject in kindergarten, primary and secondary schools. Thus, all local students of English-medium Higher Education Institutions (EMHEIs) are expected to have a fairly decent English language proficiency by the time they commence their studies in the institutions. However, this is usually not the case. Misbah et al.’s (2017) study has found that many Malaysian post-secondary students at EMHEIs struggle to adapt and perform well during their learning process and assessment because of their limited English proficiency and inadequate vocabulary.

Vocabulary is the essence of the four fundamental language skills (reading, writing, listening, speaking). Without vocabulary, nothing can be conveyed. By having a robust vocabulary, the students can read, write, listen, and speak in the English language well, which will subsequently contribute to their overall English language proficiency. Meanwhile, a lack of English vocabulary impedes the students’ comprehension of the lectures delivered and the right kind of resources for the content knowledge of their field of study. Aside from that, it obstructs written and verbal expression of their true understanding of the content knowledge that they have accumulated so far. Thus, consistent activities and initiatives to enhance English language vocabulary knowledge should be prioritized and conducted among EMHEIs’ post-secondary students to enable them to learn and communicate well.

A module is a package that contains structured lessons about a specific subject matter in the form of a unit (Abu Talib et al., 2015). Different concepts or contents are included in each unit which helps learners to master a topic before moving on to the next topic. According to Ahmad et al. (2008), a valid and reliable module can positively transform other individuals’ attitudes, beliefs, or skills in a subject matter depending on the module’s goals. Therefore, a module not only must be constructed using a specific instructional design model, but also must have undergone thorough reliability and content validity checks.

In the context of vocabulary modules, it helps the students to discover more vocabulary knowledge and acquire vocabulary learning skills that are beneficial to improve their vocabulary size. Nevertheless, in Malaysia, the total number of published studies related to the development, reliability, or validity of English vocabulary modules is still very few compared to modules for other educational subject matters such as creative thinking (Chua et al., 2020), reading (Mohamad Tarmizi & Janan, 2022), and learning skills (Fuad et al., 2019). One recent published study about English vocabulary module that took place in the Malaysian setting was by Md Said and Ramli (2023) who developed an e-module for secondary school students. Due to time constraints, as a module takes longer time to be implemented, most English language instructors tend to opt for simple and short-term vocabulary interventions for their students such as vocabulary journalling (Chong & Kee, 2019), contextual clues (Mohamad Bagais, 2023), and Google Translate (Ting & Tan, 2021).

Realizing the limited vocabulary problem among post-secondary students in EMHEIs, the researchers’ main aim in this study was to specifically develop an intervention for vocabulary knowledge enhancement, which is a theme-based content-based instruction vocabulary module for
first-semester Diploma in Tourism Management students using the ASSURE model. The rationale behind the vocabulary module development is that the students are expected to master vocabulary better when they learn it in a familiar and meaningful context. Meanwhile, the rationale for focusing on these students is that employees in the tourism and hospitality industry are required to constantly communicate and deal with international tourists in the English language. Hence, tourism and hospitality management graduates need to have a good mastery of English language vocabulary knowledge, which is the base for smooth and effective communication. The objectives formulated for this study are as follows:

1) To develop a Theme-based CBI Vocabulary Module for first-semester Diploma in Tourism Management students.
2) To determine the content validity and reliability of the module.

**Literature Review**

*Theme-Based Content-Based Instruction (theme-based CBI)*

Theme-Based Content-Based Instruction (theme-based CBI) is a language teaching method that integrates content from various subject areas into language lessons. It involves teaching language skills and knowledge by exploring specific themes or topics, allowing learners to engage with meaningful and relevant content while developing their language proficiency (Yugandhar, 2016). Selection of suitable as well as interesting themes or topics in theme-based CBI is essential because it lays the groundwork for designing language lessons. The themes can be broad, such as health or environment, or they can be more specific, focusing on a particular aspect within those topics, like healthy eating habits, or renewable energy.

Integration of language and content, authentic materials, language skills development, task-based learning, and student-centered approaches are some of the essential aspects of theme-based CBI (Che, 2017). As the lessons are interwoven with content knowledge, it ensures that the learners acquire both language skills and subject-specific knowledge simultaneously. Authentic materials such as articles, videos, and multimedia resources are used in theme-based CBI to expose learners to genuine language use and real-world contexts related to the chosen theme, as well as to develop their ability to comprehend and produce language in authentic situations. Furthermore, the incorporation of task-based learning and student-centered approaches in theme-based CBI enables students to actively collaborate and engage in meaningful tasks that simulate real-life scenarios. The students employ language skills (listening, speaking, reading, and writing) from time to time while completing the tasks. As a result, language skills are indirectly practiced in meaningful and purposeful ways within the context of the theme.

**ASSURE Model**

ASSURE model is a widely recognized instructional design model that is based on the principles of constructivism. It provides a systematic framework for instructors to plan and deliver engaging and organized lessons that infuse effective technology applications and promote students’ active participation (Kurt, 2016). The model, developed by Heinich, Molenda, Russell, and Smaldino (1999), consists of six steps. The acronym "ASSURE" stands for the steps: (A) analyze learners; (S) state standards and objectives; (S) select strategies, technology, media, and materials; (U) utilize technology, media, and materials; (R) require learner participation; and (E) evaluate and revise.
Previous Studies Using Theme-based CBI

Among the latest research conducted on the implementation of theme-based CBI in higher education setting are from Peng (2022) and Velasquez-Hoyoz (2021). In his experimental study of undergraduate students’ English listening aptitude at a university in Zhengzhou, Peng (2022) employed theme-based CBI. He selected two classes that were taking a College English Listening course during that semester. The control group was instructed using conventional methods, whereas the experimental group received Theme-based CBI. The researcher taught the experimental group listening skills using the New Horizons College English (Listening and Speaking) textbook’s enumerated topics or content from the Six-Ts approach. After 16 weeks of experimentation, the experimental group’s auditory comprehension significantly surpassed that of the control group. Moreover, theme-based CBI also had a positive effect on these students' English reading aptitude and motivation to learn.

Velasquez-Hoyoz’s research (2021) focuses on strengthening students’ oral fluency in English by implementing six theme-based teaching workshops. The participants were EFL pre-intermediate English language students from the Institute of Foreign Languages at the Technological University of Pereira in the Colombian state of Risaralda. In addition to the implementation of theme-based CBI, the study also examines the effects of the speaking phases of rehearsal, performance, and debriefing on the oral fluency of students. The results indicate that the students' oral fluency in English improved in terms of vocabulary, intonation, and the number of lengthy pauses when speaking. Moreover, other studies by Tussa’diah and Nurfadillah (2018), and Destiani and Hidayat (2019) on the effects of theme-based instruction on speaking skills also yielded positive results. These findings prove that the theme-based CBI method progressively enables students to develop their oral fluency.

Previous Studies on English Language Vocabulary Module Development in a Malaysian Setting

Among the previous Malaysian researchers who have successfully developed English language vocabulary module development are Md Said and Ramli (2023) and Tan (2018). Md Said and Ramli (2023) developed an English language e-vocabulary module that focuses on homophones and homographs. It was targeted at secondary school students aged 16 years old. ADDIE instructional design model was used as the main guide by the researchers to develop the e-module. The reliability of the e-module was tested and reported via a questionnaire by several secondary school students aged 16 years old and one secondary school’s English teacher.

In her unpublished doctorate thesis, Tan (2018) developed (AVA) module that combines a gamification approach and academic vocabulary content for private college diploma students. Marzano’s three phases of direct vocabulary instruction framework were used as the backbone of AVA module implementation. However, the development process and evaluation of validity and reliability for the module were not described in detail in the thesis as it focuses more on the effects of the AVA module on the improvement of students’ academic vocabulary knowledge in a quasi-experimental study.

Methods

This study was conducted at an English-medium university in Malaysia. A theme-based CBI vocabulary module was specifically developed to cater to the vocabulary needs of first-semester Diploma in Tourism Management students at that university. The study employed the Design and
Development research (DDR) methodology to provide an empirical foundation for instructional design and systematic validation of the module. Three processes were conducted in the study, which were development, content validation, and reliability check.

**Method for Module Development**

The development of the vocabulary module was based on the ASSURE instructional design model. Although the ASSURE model consists of six steps, only four steps are being focused on and covered in this study [steps 2 (S), 3 (S), 4 (U), and 5 (R)]. Step 1 (A) is about analyzing learner’s characteristics via a needs analysis; whereas step 6 (E) is evaluating the effectiveness of the module on the targeted sample (Diploma in Tourism Management students) via an experimental study. These two steps are considered as two separate studies due to their lengthy data collection and analysis procedure. Hence, steps 1 (A) and 6 (E) are not included in this study.

Development of the module took place about seven months before it was finally completed. The researchers spent the first three months compiling the findings from previous literature on enjoyable vocabulary enhancement activities and materials for ESL students, as well as conducting interviews with ten English language lecturers on ways to enhance vocabulary among post-secondary students. These ten lecturers were chosen because they have recently taught the targeted sample.

Next, the researchers used the remaining four months for the application of steps 2 (S), 3 (S), 4 (U), and 5 (R) of the ASSURE model. The researchers considered the inputs gained from the compilation of previous literature findings and the lecturers’ interviews when they applied these steps in developing the module.

**Method for Content Validity**

The module’s content validity was verified and reviewed by four experts in the field of Teaching English as a Second Language (TESL) field using the Content Validity Index (CVI) and the Percentage Calculation Method (PCM). The four experts have vast experience in teaching the English language to ESL learners (refer to Table One).

<table>
<thead>
<tr>
<th>Experts</th>
<th>Expert 1</th>
<th>Expert 2</th>
<th>Expert 3</th>
<th>Expert 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position &amp; Faculty</td>
<td>Associate Professor, Faculty of Education in a Malaysian university.</td>
<td>Senior Lecturer, Faculty of Language in a Malaysian university.</td>
<td>Senior Lecturer, Faculty of Education in a Malaysian university.</td>
<td>Senior Lecturer, Faculty of Language in a Malaysian university.</td>
</tr>
<tr>
<td>Highest Academic Qualification</td>
<td>Ph.D. in Language Testing &amp; Evaluation</td>
<td>Ph.D. in English Language Studies</td>
<td>Ph.D. in Teaching English as a Second Language (TESL)</td>
<td>Ph.D. in Teaching English as a Second Language (TESL)</td>
</tr>
<tr>
<td>Area of Expertise</td>
<td>Language Testing &amp; Evaluation, TESL</td>
<td>Language Literacy, TESL, Genre Analysis</td>
<td>TESL</td>
<td>TESL, English for Specific Purpose (ESP)</td>
</tr>
<tr>
<td>Teaching experience</td>
<td>37 years</td>
<td>24 years</td>
<td>20 years</td>
<td>20 years</td>
</tr>
</tbody>
</table>

The instrument used for this process is a module validity questionnaire (refer to Appendix A). After reading and analyzing the module, the four experts filled in the module validity questionnaire that contains close-ended items for CVI and PCM, as well as gave their suggestions.
and feedback on how to improve the quality of the module. CVI was used to examine the validity of the content for each treatment session. Thus, items for CVI in the questionnaire were constructed based on each treatment session. Meanwhile, PCM was used to examine the validity of the overall content of the module. Hence, items for PCM in the questionnaire were constructed based on Russell’s (1974) module validity criteria.

According to Russell (1974), a module is considered to have good content validity if it fulfills five main criteria: 1) the content of the module must reflect the targeted population, 2) the content of the module can be implemented successfully, 3) the allocated time to run the module is sufficient, 4) there is an increase of achievement among the respondents after using the module, and 5) there are improvements in the attitudes among the respondents after using the module. PCM was calculated using this formula:

\[
\text{content validity} = \left( \frac{\text{Total score expert}}{\text{Maximum score}} \right) \times 100\%
\]

(Ahmadet al., 2008)

**Method for Module’s Reliability Check**

As for the module’s reliability check, it was tested via a pilot experiment that involved 20 first-semester Diploma in Tourism Management students. The sample aligns with Hertzog’s (2008) recommended sample size of 20 to 25 respondents for intervention efficacy pilots. At the end of the pilot experiment, the students filled in a module reliability questionnaire (refer to Appendix B). The questionnaire was developed based on the objectives of the module. The data from the questionnaire was then tested for internal consistency using Cronbach’s Alpha. Aside from that, a comparison of students’ vocabulary knowledge scores between pre- and post-experiment was made using a paired sample t-test.

**Findings**

The findings of this study are divided into three subheadings: development of the module, validity of the module, and reliability of the module.

**Development of the Module**

It is compulsory for all first-semester diploma students at the research location to take a general English language course. Thus, the theme-based CBI vocabulary module is aimed to be an additional teaching aid for the English language lecturers who are teaching the course for first-semester Diploma in Tourism Management students. As mentioned in the methodology section, only four steps in the ASSURE model are being used in developing the module. The four steps are (S) state objectives, (S) select media and materials, (U) utilize media and materials, and (R) require learner participation. Detailed explanation of researchers’ actions for the four steps and the module’s summary can be found at Appendix C and D respectively.

Four objectives and eight vocabulary knowledge enhancement sessions were included in the module. The four objectives were decided based on the flow of activities in the module and the vocabulary knowledge components that students are expected to master at the end of the module. Meanwhile, the decision to construct eight sessions was made after taking into account the first semester students’ age which is 18 years old and their vocabulary needs. A total number of eight sessions was considered sufficient to expose them to vocabulary learning skills and to enhance their vocabulary knowledge. Several suitable themes and topics from the syllabus of the compulsory first-semester English language course were selected to be covered during the eight
treatment sessions (refer to Table Two). In addition, various types of media and materials that are relevant, interesting, and easily accessible are also included for each treatment session.

Table 2. Vocabulary treatment sessions in the module

<table>
<thead>
<tr>
<th>Treatment Session (TS)</th>
<th>Theme</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS1</td>
<td>Post-pandemic travel</td>
<td>Newspaper article (Reading material)</td>
</tr>
<tr>
<td>TS2</td>
<td>Official Marketing/Promotion of Tourism Destination by Tourism Council</td>
<td>Tourism promotion video (Audiovisual material)</td>
</tr>
<tr>
<td>TS3</td>
<td>Transportation for Tourism</td>
<td>Article from Travel Guidebook (Reading material)</td>
</tr>
<tr>
<td>TS4</td>
<td>Food &amp; Drinks</td>
<td>Food travel podcast (Audiovisual material)</td>
</tr>
<tr>
<td>TS5</td>
<td>Accommodation</td>
<td>Tourism pamphlet (Reading material)</td>
</tr>
<tr>
<td>TS6</td>
<td>Tourism digital content by freelancer (content creator)</td>
<td>Tourism vlog (Audiovisual material)</td>
</tr>
<tr>
<td>TS7</td>
<td>Medical tourism</td>
<td>e-Magazine articles (Reading material)</td>
</tr>
<tr>
<td>TS8</td>
<td>Sustainable tourism</td>
<td>Tedtalk Tourism (Audiovisual material)</td>
</tr>
</tbody>
</table>

Content Validity of the Module Using CVI

The module was validated in terms of the content of each treatment session through CVI calculation and overall content through PCM calculation. The experts determined the relevance of each treatment session according to the measured domain: 1 (not relevant), 2 (quite relevant), 3 (relevant), and 4 (highly relevant). According to Lynn’s (1986) calculation formula of CVI, the relevance rating on these item scales by the four experts was re-coded as 1 (relevance scale of 3 or 4) or 0 (relevance scale of 1 or 2, as shown in Table Three.

Table 3. Calculation of CVI using Lynn’s formula for content validity (1986)

<table>
<thead>
<tr>
<th>Section /Expert</th>
<th>Expert 1</th>
<th>Expert 2</th>
<th>Expert 3</th>
<th>Expert 4</th>
<th>Experts in agreement</th>
<th>I-CVI</th>
<th>UA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS1-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS1-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS1-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS2-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS2-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS2-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS3-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS3-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS3-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS4-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS4-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS4-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS5-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS5-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS5-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS6-1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS6-2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS6-3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Acceptable CVI values for an instrument that undergoes a validation process by three to five experts is 1 (Polit et al., 2007; Lynn, 1986). Based on the above calculation, I-CVI, S-CVI/Ave and S-CVI/UA meet the benchmark of acceptable CVI values. Thus, all treatment sessions in the module have a satisfactory level of content validity.

**Content Validity of the Module Using PCM**

Carmines and Zeller (1979) stated that the minimum value of validity using the PCM formula is 80%. Both the average and individual percentages of validity for the overall content of this module given by the four experts are more than 80% (refer to Table Four). These findings show that the experts agree that the module possesses good content validity. Besides that, corrections and necessary changes were also made to the module based on the suggestions and feedback from the experts before it was finally used for data collection.

**Reliability of the Module**

The reliability check of the module was performed twice through the module reliability questionnaire’s result and a comparison of the pre and post-test vocabulary knowledge scores of the pilot study participants. Any module or instrument where Cronbach’s Alpha value exceeds .70 is considered acceptable (Hair et al., 2009). Based on the module reliability questionnaire’s result, the module has good reliability with .870 Cronbach’s alpha score (refer to Table Five).
Table 6. Comparison of pre-and post-test vocabulary knowledge scores

<table>
<thead>
<tr>
<th>Pair</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>20</td>
<td>38.15</td>
<td>4.02</td>
<td>4.78</td>
<td>6.32</td>
<td>15.16</td>
<td>.000</td>
</tr>
<tr>
<td>Pre</td>
<td>20</td>
<td>32.6</td>
<td>3.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A paired-sample t-test was conducted to compare the difference in pilot study participants’ vocabulary knowledge scores before and after they had participated in the module sessions. It was undertaken to ensure that the module is statistically reliable in enhancing vocabulary knowledge. All participants in the pilot study answered a set of multiple-choice questions (MCQ) receptive vocabulary tests twice, before and after participating in the module sessions. Although the items in the test for both times are the same, the arrangements of the answer choices and questions are different to prevent the students from memorizing the answer sequence.

The findings from the pilot study showed there was a statistically significant increase from the pre-test score (M = 32.60, SD = 3.94) to the post-test score (M = 38.15, SD = 4.02), t (19) = 15.16, p < .001. The mean increase of the score was 5.55, with a 95% confidence interval ranging from 4.78 to 6.32. The eta squared statistic (1.39) indicated a large effect size. These results suggest that the module is reliable to be used as a teaching aid for enhancing the students’ vocabulary knowledge.

Discussion

Previous studies have shown that well-built modules that meet the specifications stated in the instructional design model will have high validity and reliability. Aside from being good written-wise, a module, which has been developed and designed properly, can also significantly attract students’ attention to learning, help the instructors to achieve teaching and learning goals, and bring impactful improvement to the learners’ comprehension or skills in a specific subject matter. In this study, the ASSURE model was used as the main guide by the researchers while developing the theme-based CBI vocabulary module. The systematic step sequence of the ASSURE model facilitated the researchers in selecting suitable materials and preparing interactive activities for the module as well as organizing the content into a cohesive vocabulary module.

In a module, it is better if the objectives stated are limited and recommended that only 3 to 4 objectives are included in a module to ensure thorough focus on a specific subject matter (Russell, 1974). Thus, the theme-based CBI vocabulary module that has been constructed has 4 objectives, which are based on the activity of the module.

A newly created module must also be reviewed by experts for content validation and tested by the learners in a pilot study for reliability check. These two processes enable the module to get constructive feedback. Validity seeks to ascertain the accuracy of the module content, whereas reliability determines the probability that the module will show or give the same impact when it is used as an intervention tool for other similar respondents at different times and research locations (Abu Talib et al., 2015). When these feedback are gathered, referred to, and applied by the researchers for the module’s correction and amendment purposes, it will subsequently boost the quality of the module and ensure that it is aligned with the real needs of the learners. Thus, the evaluation of validity and reliability is the most crucial phase to polish the module towards perfection.
This study used two calculation methods for content validity check by four TESL experts, which are the Content Validity Index (CVI) and Percentage Calculation Method (PCM). By having four TESL experts to validate the module, it reduces bias and ensures broad constructive feedback pertaining to the accuracy of the module content are given. The theme-based CBI vocabulary module was validated in terms of the content of each treatment session through CVI calculation. All CVI values for this module (I-CVI, S-CVI/Ave, and S-CVI/UA) meet the benchmark of acceptable CVI values, which are 1 for validation by four experts. Meanwhile, the overall content of the module was validated through PCM calculation. Both the average and individual percentages of validity for the overall content of the module are more than the minimum accepted percentage value of 80%, which means all four experts agree that the module possesses good content validity. The combination of CVI and PCM usage in this study gives a comprehensive content validity check on the theme-based CBI module. In addition, these findings of threshold validity are consistent with other module validation studies such as Mohamad Tarmizi and Janan (2022), Chua et al. (2020), Aziz and Mamat (2018), and Abu Talib et al. (2015).

To ensure extensive reliability results that can predict the effectiveness of the module for future use, reliability evaluation was conducted twice on the theme-based CBI module during a pilot study, which was through the module reliability questionnaire’s result and a comparison of the pre and post-test vocabulary knowledge scores. The module reliability questionnaire’s result revealed that the module has good reliability with .870 Cronbach’s alpha score. Moreover, there was a statistically significant improvement in the post-test vocabulary knowledge scores of the pilot study participants as compared to their pre-test vocabulary knowledge scores. The process of obtaining these reliability values is in line with what previous researchers have done in their modules by Chua et al. (2020) and Abu Talib et al. (2015).

Overall, the theme-based CBI vocabulary module that was developed using the ASSURE model has high validity and reliability. Furthermore, when it was used as an intervention tool during the pilot study, it succeeded in improving the learners’ vocabulary knowledge scores. These findings indicate that the module is ready and suitable to be used during vocabulary knowledge enhancement sessions for first-semester Diploma in Tourism Management students.

Conclusion

To ensure the effectiveness of a module, it must undergo three rigorous processes of development, content validity, and reliability checks. The researchers’ main aim was to specifically develop an intervention for vocabulary knowledge enhancement, which is a theme-based CBI vocabulary module for first-semester Diploma in Tourism Management students using the ASSURE model. Hence, upon completion of the theme-based CBI vocabulary module, it was later evaluated in terms of content validity and reliability. All eight treatment sessions in the module were rated at a satisfactory level of content validity by the experts. Furthermore, the module was found to possess not only good overall content validity, but also good reliability with .870 Cronbach’s alpha score. Aside from that, this module is deemed reliable to be used in real-life English language classrooms as there was a statistically significant increase from the pre-test vocabulary knowledge score to the post-test score among pilot study participants with a large effect size. It is recommended for future researchers who are interested in embarking on a vocabulary module study to explore diverse types of reading materials, audio, and videos during the material selection step, as well as adding the latest technology-based learning tools that can facilitate vocabulary knowledge enhancement.
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References


Chua, Y. L., Balakrishnan, B., Chai, V. C., & Koh, Y. Y. (2020). Assessing the validity and reliability of creative thinking skills module in a pilot study on engineering undergraduate


### Appendix A

<table>
<thead>
<tr>
<th>Content validity questionnaire for each treatment session</th>
</tr>
</thead>
<tbody>
<tr>
<td>We need your expert judgement on the degree of relevance of the content for each treatment session. Please be as objective and constructive as possible in your review and use the following rating scale:</td>
</tr>
<tr>
<td><strong>Degree of relevance:</strong></td>
</tr>
<tr>
<td>1- not relevant to the students</td>
</tr>
<tr>
<td>2- somewhat relevant to the students</td>
</tr>
<tr>
<td>3- quite relevant to the students</td>
</tr>
<tr>
<td>4- highly relevant to the students</td>
</tr>
<tr>
<td>Kindly refer to the attached module while filling in degree of relevance for more detailed impression of the content of the module</td>
</tr>
<tr>
<td><em>Reading material is paired with online quiz</em></td>
</tr>
<tr>
<td><em>Audio-visual material is paired with crossword puzzle</em></td>
</tr>
</tbody>
</table>

#### Treatment session 1
- **Topic:** Post-pandemic travel
- **Type of material:** Reading Material
- **Authentic Material:** Newspaper article
- **Gamification Aspect:** Online quiz

<table>
<thead>
<tr>
<th>Degree of relevance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>1. Topic</td>
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<tr>
<td>2. Type of authentic material</td>
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<tr>
<td>3. Vocabulary in the material</td>
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</tbody>
</table>

**Comments about Treatment Session 1**

#### Treatment session 2
- **Topic:** Marketing/Promotion of Tourism Destination by Tourism Council
- **Type of material:** Audio-visual Material
- **Authentic Material:** Tourism promotion video
- **Gamification Aspect:** Crossword-puzzle

<table>
<thead>
<tr>
<th>Degree of relevance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Topic</td>
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</tr>
<tr>
<td>2. Type of authentic material</td>
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<tr>
<td>3. Vocabulary in the material</td>
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</tbody>
</table>

**Comments about Treatment Session 2:**

#### Treatment session 3
| **Treatment Session 3** | **Topic:** Transportation for Tourism  
**Type of material:** Reading Material  
**Authentic Material:** Travel guidebook article  
**Gamification Aspect:** Online quiz |
<table>
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<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Degree of relevance</strong></td>
<td>1   2   3   4</td>
</tr>
<tr>
<td>1. Topic</td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
<td></td>
</tr>
</tbody>
</table>

**Comments about Treatment Session 3:**

| **Treatment Session 4** | **Topic:** Food & Drinks  
**Type of material:** Audio-visual Material  
**Authentic Material:** Podcast  
**Gamification Aspect:** Crossword puzzle |
<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Degree of relevance</strong></td>
<td>1   2   3   4</td>
</tr>
<tr>
<td>1. Topic</td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
<td></td>
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<tr>
<td>3. Vocabulary in the material</td>
<td></td>
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</tbody>
</table>

**Comments about Treatment Session 4:**

| **Treatment Session 5** | **Topic:** Accommodation  
**Type of material:** Reading Material  
**Authentic Material:** Accommodation pamphlet  
**Gamification Aspect:** Online quiz |
<table>
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</thead>
<tbody>
<tr>
<td><strong>Degree of relevance</strong></td>
<td>1   2   3   4</td>
</tr>
<tr>
<td>1. Topic</td>
<td></td>
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<tr>
<td>2. Type of authentic material</td>
<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
<td></td>
</tr>
</tbody>
</table>

**Comments about Treatment Session 5**

| **Treatment Session 6** | **Topic:** Tourism digital content by freelancer (content creator)  
**Type of material:** Audio-visual Material  
**Authentic Material:** Travel vlog  
**Gamification Aspect:** Crossword puzzle |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree of relevance</strong></td>
<td>1   2   3   4</td>
</tr>
<tr>
<td>1. Topic</td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
<td></td>
</tr>
</tbody>
</table>

**Comments about Treatment Session 6**

| **Treatment Session 7** | **Topic:** Medical Tourism  
**Type of material:** Reading Material  
**Authentic Material:** e-Magazine article  
**Gamification Aspect:** Online quiz |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Degree of relevance</strong></td>
<td>1   2   3   4</td>
</tr>
<tr>
<td>1. Topic</td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
<td></td>
</tr>
</tbody>
</table>

**Comments about Treatment Session 7**
### Treatment session 7

**Topic:** Sustainable Tourism  
**Type of material:** Audio-visual Material  
**Authentic Material:** TED talk  
**Gamification Aspect:** Crossword puzzle

<table>
<thead>
<tr>
<th>Degree of relevance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Topic</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
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</tbody>
</table>

**Comments about Treatment Session 7**

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### Treatment session 8

**Topic:** Sustainable Tourism  
**Type of material:** Audio-visual Material

<table>
<thead>
<tr>
<th>Degree of relevance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Topic</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Type of authentic material</td>
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<td></td>
</tr>
<tr>
<td>3. Vocabulary in the material</td>
<td></td>
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</tr>
</tbody>
</table>

**Comments about Treatment Session 8**

---

### Content validity questionnaire for overall content of the module

**Overall impression towards the module validity**

Please use the following rating scale when reviewing:

1. Not Valid  
2. Less Valid  
3. Valid  
4. Very Valid

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The content of the module reflects target population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The content of the module can be implemented successfully</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The content of the module corresponds to the allocated time to run the module</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The content of the module can improve students’ vocabulary mastery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The content of the module can improve students’ word consciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The content of the module can give positive influence on the students to pursue independent vocabulary learning in the future</td>
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<td></td>
</tr>
</tbody>
</table>

**Comments on overall impression towards the content validity of the module:**

---

### Appendix B

**Module Reliability Questionnaire**

Based on your experience attending the vocabulary enhancement session, please tick your response for the following statement.

1. Strongly disagree  
2. Disagree  
3. Neutral  
4. Agree  
5. Strongly Agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Playing crossword puzzle enhances my vocabulary knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Vocabulary group discussion using Frayer model enhances my vocabulary knowledge

3. Vocabulary peer presentation using Frayer model enhances my vocabulary knowledge

4. Playing online vocabulary quiz via Quizizz enhances my vocabulary knowledge.

5. I learn how to utilize Frayer model for my personal vocabulary learning.

6. I learn about part of speech of a word during the vocabulary enhancement session.

7. I learn how to search for meaning of the word during the vocabulary enhancement session.

8. I learn about synonym during the vocabulary enhancement session.

9. I learn about antonym during the vocabulary enhancement session.

10. I learn about word derivatives during the vocabulary enhancement session.

11. I learn about word collocation during the vocabulary enhancement session.

12. I learn about writing sample sentence based on the word learnt during the vocabulary enhancement session.

13. I learn different types of vocabulary through various authentic materials of Hospitality and Tourism Management during the vocabulary enhancement session.

Appendix C

Steps in developing the module

<table>
<thead>
<tr>
<th>Steps</th>
<th>Researchers’ actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S) state objectives</td>
<td>Prior to this step, the researchers had established that the module adopts the theme-based content-based instruction (CBI) method and utilizes multi-modal materials. Based on past literature findings and interview input from a needs analysis that was conducted earlier, the researchers identified four key components to be embedded in the module, which are flipped learning, gamification (online quiz and crossword puzzle), student team achievement division (STAD) and Frayer model. Then, four objectives of the module were constructed by the researchers based on the four key components.</td>
</tr>
<tr>
<td>(S) Select media and materials</td>
<td>The researchers selected several themes and topics from the syllabus of the compulsory first-semester English language course that are suitable for the module. Next, the researchers searched and short-listed various types of media and materials that are relevant, interesting, and easily accessible to be used in the module. The readability index for chosen reading materials and audio transcripts was later checked using the Flesch-Kincaid test. All materials in the module range from CEFR’s B1 to B2. This range is the official difficulty range for the post-secondary students (first-semester diploma students) in this university.</td>
</tr>
<tr>
<td>(U) utilize media and materials</td>
<td>The researchers assigned and arranged the media and materials according to the suitability of each topic and theme.</td>
</tr>
</tbody>
</table>
(R) require learner participation. The researchers made sure that the activity flow for each session in the module utilizes a student-centered learning approach and promotes active participation by the students.

**Appendix D**

**Summary of the module**

**Objectives**

1) To facilitate students in enhancing their vocabulary mastery via the Frayer model, online quiz, and crossword puzzle.
2) To expose students to multiple aspects of vocabulary (spelling, pronunciation, synonyms, antonyms, word derivation, and word collocation)
3) To expose students to different types of vocabulary (general vocabulary, academic vocabulary, discipline-based vocabulary) that exist in various kinds of authentic materials related to their field of study (Hospitality and Tourism Management)
4) To train students to become independent learners by applying the Frayer model while pursuing self-vocabulary learning.

**Activity flow**

The student teams-achievement division (STAD) concept is applied through the division of students into several groups of four or five members. Each group consists of students with diverse English language proficiency. The students collaborate and cooperate to complete the activities during the vocabulary enhancement session.

The flipped learning concept is applied by assigning a list of several words that will appear in the media/material for an upcoming vocabulary enhancement session to one of the groups. The group that has been assigned the list needs to prepare slides on the assigned words using the Frayer model.

Frayer model is chosen due to its comprehensive visual representation of related and essential knowledge of a vocabulary (refer to Figure One).

![Frayer Model](image)

**Figure 1. Frayer Model**

Gamification in the form of crossword puzzles and online quizzes is embedded in the vocabulary session to enable the researchers in monitoring students’ comprehension of selected vocabularies that were previously highlighted during the session.

**Pre-teaching:**
The group will present Frayer models for the assigned words.

**During teaching:**
The lecturer will give a lecture on the topic that is supposed to be covered for that week as listed in the course’s official weekly schedule. Next, the lecturer will display the media/material that has been specially prepared for that topic. The students will listen to or read the media/material (depending on the type of media/material) before completing exercises about the covered topic using the media/material given.

**Post-teaching:**
Before class ends, the students will either complete a crossword puzzle or play an online quiz (depending on the session) to test their comprehension of selected vocabularies that exist in the media/material given. These vocabularies have also been presented by their peers at the beginning of the vocabulary enhancement session. The time gap is purposely applied to check whether the vocabulary knowledge taught earlier is still retained by the students.
A Survey of Undergraduate Chinese Students' Self-perceived Reading Ability in English

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Graduate School of the Human Sciences
Assumption University, Bangkok, Thailand
Corresponding Email: xiaozhe3233@gmail.com

Joseph Foley
Graduate School of the Human Sciences
Assumption University, Bangkok, Thailand

Abstract
Reading is one of the indicators of how much a reader understands a language. Though reading is taught early in students' education, some still struggle to comprehend texts, especially if a language is a stranger. Reading is a skill that enhances intellectual and affective processes, including reasoning, inferences, empathy, and critical thinking. Thus, a lack of language familiarity to interact with the text can hinder reading comprehension. This article focuses on Chinese students' self-perceived reading ability that hinders reading comprehension. The aim is to answer the question; To what extent do Undergraduate Chinese students' of University X perceive their reading ability in English? This survey is significant because letting the students understand their reading ability helps the teacher understand what to focus on in the English course and provides the correct reading strategies to achieve the reading goal. One hundred ninety-nine students from one of the private universities participated in this study. Using a questionnaire survey to assess students’ self-perceived reading ability supported by the semi-structured interview, this study found that although Chinese students employed good reading strategies, they still found their reading comprehension problematic because of the influence of their reading speed. Thus, this affects the reading goal and students’ interest in reading.

Keywords: Barriers to reading, Chinese students reading ability, Reading comprehension, Self-reading ability

DOI: https://dx.doi.org/10.24093/awej/vol14no3.23
Introduction

Reading is one of the many activities teachers integrate into teaching English as a foreign language. When teaching undergraduate Chinese students, the assumption is that reading is not a problem anymore. Contrary to that belief, however, reading is one of those challenges undergraduate students have encountered in learning English as a foreign language. Supposedly, reading has a minor part in teaching English as a foreign language in the English course, as the teaching focus was speaking. However, when providing a text so students could read and discuss afterward, it was found that five minutes of reading texts took students 20 minutes or so before discussions. Because of this issue, this project aims to understand Chinese undergraduate students' reading ability, one of the significant challenges they face at University X.

The first question that comes to mind is, what is reading? Why is it necessary to understand students reading abilities? When talking about reading, there are always players that come to mind, a reader and a text. When reading, there is always an interaction between these two elements (Perfetti & Stafura, 2014). The purpose of reading is not only about recalling and understanding what is going on in the text but also about being entertained by what is happening in the text a reader reads (Kintsch, 2013; Nation, 2005). To comprehend a text, students must synthesize the relationship of the spelling pattern to the sound pattern of the written language (Cho et al., 2017) and acquire the vocabulary needed for higher text comprehension and appreciation of the text. According to Makau (1990), a student with good comprehension needs to possess the following abilities; s/he should have the ability to understand the information, should know the spirit of the message, and should have the ability to analyze and evaluate the meaning beyond the text (Goodman, 2019). Reading various texts can be challenging for foreign language learners like Chinese undergraduates.

This article focuses on identifying Chinese students' perception of their reading ability so teachers can know which reading domain they need to focus on to improve students' reading comprehension and provide pedagogical implications for reading. Adapting Macau’s (1990) questionnaire survey, this paper answered the research question: To what extent do Undergraduate Chinese students of University X perceive their reading ability in English?

Literature Review

Understanding Reading and Reading Comprehension

Reading is an interactive process of inferring, knowing correct sounds, and comprehension (Catts, 2022; Kamhi & Catts, 2002). To use these skills, a reader must have good reading comprehension as a crucial element to understanding texts. A successful reader is determined by reading attitude, reading purpose, prior knowledge about the text (McNamara, 1996), textual structure, and vocabulary knowledge as the basis of how readers interact with the text (Yıldırım, 2010). The number of vocabulary readers determines the reading comprehension obtained and is a good indicator of a reader's fluency in decoding the meaning of the text (Oakhill et al., 2019). As the reading progresses, the amount of vocabulary helps the readers process the meaning, thus influencing reading comprehension (Fernandes et al., 2017; Kintsch, 2013). Students can develop reading comprehension with good reading practices (Duke & Pearson, 2002).

According to Dale (1965), one of the pioneers of reading, reading is divided into three levels:

1. The simple, uncritical reproduction and duplication of what has been said. The reading comprehension level we refer to as 'reading the lines' or literal comprehension.
2. At a higher level, drawing inferences from what is read or 'reading between the lines' requires critical thinking.

3. A third level involves evaluation and application, which requires vigorous and critical judgment. This reading is called "reading beyond the line" (As qtd in X. Zhang, 2021, p. 25).

A reader's comprehension of the texts improves as they read. As highlighted by Dale, one of the determinants of students' higher comprehension is their ability to read between and beyond the line, the second and third levels of reading. Students at the undergraduate level assume to be at the second or third level. This means that they have enough vocabulary knowledge to equip them in reading.

Comprehension is always regarded as the goal of reading. This involves decoding the texts through word recognition and is one of the aspects of reading ability. Although the speed of reading is not always the focus of the different studies, this component has something to do with the comprehension of texts because to decode the meaning, a reader needs to have good concentration and discrimination of the text (Silverman, 2021). Comprehension also relies on a reader's vocabulary knowledge; hence, readers' understanding of the text influences the reading speed. According to scholars (Goodman, 2007; Nation, 2005; Schreiber, 2003), a reader's accurate perception, sound recognition, word recognition, word discrimination, semantics, syntax, and linguistic processes and comprehension are foundations for compelling reading. Lyon, Shaywitz, and Shaywitz (2003) argued that working with different texts and textual structures, making predictions and inferences, setting goals, and using strategies enhance reading comprehension prior to the transfer of information in the reading environment during the reading process (Catts, 2022; Cain & Oakhill, 2006; Kamhi & Catts, 2005; Kintsch, 2013; Kintsch & Rawson, 2005). Text comprehension involves the three levels of mental representations: surface code, text-based, and situation models, in which a surface code is a verbatim memory of words or phrases and is less relevant to discourse processes (Mulder & Sanders, 2012). Text-based, however, is a representation of meanings of a text, comprised of textual propositions and their interconnections. It is relevant to discourse processes because it includes readers' recollection of relations between information in the text (Kintsch, 2013; McNamara & Kintsch, 1996). This could lead to reading fluency, where students become familiar with new words they encounter in text. Therefore the more reading students do, the more familiar they are with the complex text, thus improving their comprehension. As Stenner (2022) emphasized, reading comprehension is "the best predictor of success in higher education" (p.71)

**Reading Fluency and Vocabulary Comprehension**

Reading fluency is a predictor of reading comprehension in which the amount of vocabulary from the texts increases their ability to interact with what they read. According to Fernandes et al. (2017), "Decoding contributes to developing the ability to read words efficiently, allowing the establishment of lexical knowledge. This latter ability directly determines text-reading fluency (Fernandes et al., 2017, p. 17)." According to Silverman, Speece, Harring, and Ritchey (2013), fluent readers can read words effortlessly and automatically as they decode and comprehend the text (As qtd in Silverman et al., 2021). Thus, fluency in reading has something to do with how much comprehension a reader knows (Kintsch & Rawson, 2005).

Consequently, vocabulary knowledge influences this understanding of the text and contributes to fluency in reading. As Vermeiren, Vandendaele, and Brysbaert's (2023) study indicated, vocabulary "correlated with general knowledge," precisely "reading comprehension,"
even for students whose first language is English (p. 1046), more so when English is a Foreign Language (EFL). Mol and Bus (2011) indicated that learners with good reading ability have greater vocabulary knowledge (As qtd in Van Der Kleij, Burgess, Ricketts, & Shapiro, 2022). Furthermore, Oakhill, Cain, and Elbro (2019) argued that good reading comprehension is an invaluable source of word knowledge because learners have accumulated vocabulary over time that equips the development of their reading fluency (Abdelrahman & Bsharah, 2014; Brown, 2010). However, as readers are foreign language learners, reading is affected by students' familiarity or understanding of words and their comprehension of a particular language, such as English (Foorman et al., 2015; Van Der Kleij et al., 2022). This is why reading should always start with vocabulary knowledge, as this is one of the essential foundations of understanding a language. Thus, strong reading skills should be regarded as necessary "for the continuing education that rapidly changing technology and economic conditions demand" (Stenner, 2022, p. 71). Nation (2005) and Zano (2022) emphasized that vocabulary knowledge is fundamental to reading comprehension, especially for English as Foreign Language Learners (EFL). This is required for the English language and almost every subject the students study. Reading is one of the different abilities students need and is viewed as one of the essential foundations for English language learning. However, one of the problems encountered in teaching reading is that students need to comprehend what they read and have a considerably slower reading speed. Thus, to fully understand the quality of students' reading ability, the researcher, as the teacher, surveyed students' perceived reading ability.

**Method**

As the study focused on surveying the undergraduate Chinese students' perceived reading ability in English, the qualitative research design was used to collect and analyze the data. The researcher used purposive sampling as the intention was to help the English teacher to prepare the students for the English foundation course.

**Participants**

Two hundred students participated in this survey using the sampling technique mentioned above. They were first-year undergraduate Chinese students of the Academic Year 2021 studying an English foundation course at University X.

**Instruments**

To answer the research question posed in the study: *To what extent do the Chinese students of University X perceive their reading ability in English?* The researcher used a questionnaire survey adapted from Macau (1990) to identify Chinese undergraduate students’ self-perceived reading ability. Although this study is purely statistical, the survey result would be supported by an interview of the randomly chosen participants interviewed in groups. Therefore, the students were given two letters initially for anonymity.

The questionnaire survey has five domains: reading speed, reading comprehension, number of materials, concentration, and retention.

The reading speed domain hopes to understand students understanding of their own pace as one of the determinants of their reading ability.

Reading comprehension is to understand students' ability to comprehend the main idea and interpretations of the text, especially if these are implied, while the number of materials is for
knowing whether students can complete all required reading materials. This also includes identifying whether they are utilizing strategies helpful for reading.

Concentration, on the other hand, is about understanding the focus exerted by students when they read, as this has something to do with how much they can retain while reading.

As the researcher intends to know students' direct answers, three Likert scaling measurement was applied; 0= describes me almost never; 1= describes me sometimes; 2= describes me often or to a large degree. Using descriptive analysis, frequency, and percentage were used to analyze the data.

**Research Procedures**

The questionnaire survey was distributed to the students who participated in the study using Microsoft Teams. The students were given a week to return the questionnaire. After one week, more than 50% of the students returned the survey questionnaire. Thus, the students who did not return the survey were given another week to complete and return it. After two weeks, the survey was collected, and 199 returned. These 199 surveys were the basis of the analysis. Using Microsoft Excel, the surveys were calculated using descriptive analysis. The frequency and percentage were analyzed to answer the research questions. When the analysis result was completed, the researcher set for an interview using purposive sampling. The respondents for the interview were chosen from the Wednesday English foundation class. The interviews aimed to clarify some domains based on the students' explanations and support the survey findings.

The presentation of the findings starts with the statistical result, and then excerpts from the interviews are provided to support the findings.

**Results**

The findings answered the research question; *to what extent do the Chinese students of University X perceive their reading ability in English?* are presented and discussed based on each domain of the reading.

The first domain is 'reading speed.'

<table>
<thead>
<tr>
<th>Table 1. Reading speed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>1</td>
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</tbody>
</table>

As illustrated in the table, out of 199 Chinese students who participated in the survey, 71% described their reading ability as *slow*. They described themselves ‘often or to a large degree.’ While there were only 18.5% chose ‘describes me almost never’ or perceived themselves as *fast readers,* while 10.5 % indicated that the statement 'describes me sometimes.’ The result means that students perceive reading speed as one barrier contributing to their lack of interest in reading. According to them, they read slowly because 'they had difficulty understanding the meaning of words,’ especially words they had not encountered before.

According to Ch, *"There is much vocabulary that I did not know in the text. So, I have to translate that word in my language first, then translate in English and find the meaning on my phone"*. While Ru added, *"The reading text sometimes is boring, and the words look like not interesting, so I have to look for examples in pictures to understand them"*. Based on the findings supported by the students' interview, lacking vocabulary exposure has contributed to students' slow
reading speed (Abdelrahman, & Bsharah, 2014). One thing which was quite interesting was knowing what plays a part in this slowness. As these students indicated, their strategy of knowing the meaning requires cognitive processing ability, such as translating the word into the first language and then the target language or finding images to understand the words. Thus, these different processes explain why their reading speed was relatively slow.

The second domain is 'reading comprehension.'

Table 2. Reading Comprehension

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I have difficulty finding the main idea when I read.</td>
<td>43</td>
<td>15</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21.5%</td>
<td>7.5%</td>
<td>66.8%</td>
</tr>
<tr>
<td>3</td>
<td>I often need to read materials several times before I understand them.</td>
<td>27</td>
<td>39</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.6%</td>
<td>19.8%</td>
<td>70%</td>
</tr>
<tr>
<td>4</td>
<td>I have difficulty interpreting the meaning of words I read.</td>
<td>44</td>
<td>16</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22%</td>
<td>8%</td>
<td>67.3%</td>
</tr>
<tr>
<td>5</td>
<td>I have trouble ‘reading between the lines’ for implied meaning.</td>
<td>45</td>
<td>20</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22.6%</td>
<td>10.1%</td>
<td>66.8%</td>
</tr>
</tbody>
</table>

When it comes to reading comprehension, 21.5% of the students indicated that they have 'no difficulty in finding the main idea' of the text, 13.6% do not need to read the materials several times, 22% have a problem interpreting the meaning of words and 22.6% have no problem 'reading between the lines.' However, as indicated, sometimes 7.5% of the participants 'have difficulty finding the main idea' in the text, 19.8% have difficulty understanding what they have read, which was the reason why they had to read the materials or text many times, 8% still encountered difficulty in interpreting the meaning of words in reading materials. In comparison, 10.1% have problems reading between the lines. However, the rest of the 70% found that they have difficulty in reading comprehension. For example, 66.8% found it ‘difficult to find the main idea in the text,' 70% 'needed to read materials several times,' 67.3% still had 'difficulty interpreting the meaning of words, and 66.8 % had trouble 'reading between the lines.' Based on this finding, students in University X need help with reading. Thus, they need to read more to be familiar with different words in the English language, as lack of familiarization and exposure to the English language influence Chinese students’ difficulty in reading.

If out of 199 students, only 10% indicated that they have no problems understanding what they read in English, there is a big problem here. Reading is central to students learning English subjects and other subjects taught in English. If 70% of students' 199 students indicated difficulty in reading comprehension, this situation would affect students' performance in English and other subjects.

According to the interviewed students, reading textbooks is acceptable if they are given enough time to read at home. If given only a few minutes, answering questions immediately is difficult.

According to Rn, "I can understand what I read if I have time to read the passage many times, and I can find the meaning on my phone. However, nevertheless, if teachers told me to read for 15 minutes, I would have difficulty understanding what I read. Also, I need my teacher to explain to me in Chinese to understand easily."

The third domain is about the 'number of materials.'
Several reading materials implied the number of materials the students can read as suggested by a teacher. As shown in the table, more than 20% of the participants have ‘no difficulty’ reading the required readings as indicated in Item Six, 27.1% have ‘no difficulty reading all the required readings,’ and in Item Seven, 21.7% keep up with supplementary readings. However, only 17.6% used ‘skimming’ as a good reading strategy before reading (as illustrated in Item eight). The survey indicated that the ‘reading speed' and 'reading comprehension' have shown why students have difficulty completing or reading the assigned reading materials because, as illustrated, 62.3% and 68.3% could not keep up the reading and the supplementary materials, respectively. Interestingly, 48.7% indicated that they used a good reading strategy, such as skimming the contents of the text before reading for detail. The indication is that some students know how to use one of the excellent reading strategies, but they need help comprehending some words. Hence, this influences their reading speed.

Xu stated, "I skimmed the reading text before I read, hoping to get the main idea immediately. But, I feel frustrated sometimes because as I skimmed once, I stuck to words I could not understand. However, I could not ignore it. So I have to check the meaning on my phone immediately. So, sometimes the purpose of skimming becomes useless as I could not carry on fast enough. So, instead, I tend to go back from the beginning again."

Again, this boils down to the problem of vocabulary comprehension because even if students skimmed the text, it becomes a reading barrier once they encounter complex vocabulary. The following domain presented is about 'concentration.'

Table 4. Concentration

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I often can only focus if I am very interested in the material.</td>
<td>71</td>
<td>104</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35.7%</td>
<td>52.2%</td>
<td>12.1%</td>
</tr>
<tr>
<td>10</td>
<td>My eyes often see the words, but my mind is somewhere else.</td>
<td>78</td>
<td>108</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>39.2%</td>
<td>51.3%</td>
<td>6.5%</td>
</tr>
<tr>
<td>11</td>
<td>I am easily distracted by my thoughts while reading.</td>
<td>66</td>
<td>108</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33.2%</td>
<td>54.3%</td>
<td>12.5%</td>
</tr>
<tr>
<td>12</td>
<td>I am easily distracted by things going on around me.</td>
<td>57</td>
<td>125</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28.6%</td>
<td>62.8%</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

Interestingly, most participants indicated that their reading concentrations were good. Based on the findings, 35.7% focused on materials they read, 39.2% concentrated on their reading and were not easily disturbed by their thoughts, and 28.6% were not easily distracted by what was happening around them. Meaning more than 30% of the participants have good concentration while reading. However, as indicated, out of 199 students, only about 10% have difficulty with concentration, as 55.15% implied that they have difficulty sometimes. Therefore, a lack of vocabulary understanding contributes to Chinese students’ reading comprehension and influences their reading speed.

The last domain is 'retention.'

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Table 5. *Retention*

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>I forget much of what I read soon afterward</td>
<td>67</td>
<td>117</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33.7%</td>
<td>58.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td>14</td>
<td>I make notes while reading.</td>
<td>19</td>
<td>99</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.5%</td>
<td>49.7%</td>
<td>40.8%</td>
</tr>
<tr>
<td>15</td>
<td>I highlight or underline while reading.</td>
<td>10</td>
<td>84</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5%</td>
<td>42.2%</td>
<td>52.8%</td>
</tr>
</tbody>
</table>

Retention is the last component to understanding how Chinese students perceive their reading ability. Based on the findings, only 33.7% perceived they had no problem retaining the information after reading. In comparison, 7.5% have implied that they forget the information after reading, and 58.8% have indicated that they have sometimes forgotten what they have read. As for Items 14 and 15, almost 50% of the students implied that they have effective reading strategies as they made notes while reading and highlighted or underlined words. Interestingly, about 50% of the participants used the strategies. Therefore, items 8, 14, and 15 are about good reading strategies the students use. Therefore, reading strategies are different from why Chinese students need help with reading or are slow readers.

Discussion

This article focuses on understanding University X Chinese students' self-perceived reading ability. Using the questionnaire survey, the findings illustrated that in the first component, 'reading speed,' students indicated a problem with their reading speed as most students are slow readers and very few are good readers. The outcome of this study is supported by Abdelrahman and Bsharah's (2014) argumentation, where they indicated that reading speed tends to project how much information a reader can know that can influence their retention of words (Brown, 2010). Nevertheless, this does not mean a fast reader acquires more information than a slow reader. A good reader typically knows where to focus and what information needs to be internalized. Also, no matter how fast a student can be, there is still a tendency for a reader to experience difficulty retaining all information he/she reads (Catts et al., 2016). This is why competent readers know when to speed up and slow down when they read (Duke & Pearson, 2002). For first-year Chinese students of University X, this indicated that their perceived reading ability could be better even if they use good reading strategies.

Reading comprehension involves readers understanding words or the language they acquired and how they organized them meaningfully (Grabe & Stoller, 2011). In this study, Chinese students' self-perceived reading comprehension tends to be varied. The reason depends on the reading materials they read. For example, poor comprehension tends to be influenced by poor vocabulary knowledge in English or to retain the information a reader needs (Brown, 2010). On the other hand, good comprehension involves selecting and understanding necessary information and linking it together (Goodman, 2019). This is why a reader's background knowledge and vocabulary level influence comprehension (Vermeiren, Vandendaele, & Brysbaert, 2023; Yıldırım, 2010).

As for completing the reading materials, a few need help to complete their assigned reading and other supplementary materials. What was illustrated in the survey was that, although the majority indicated that they used some strategies in reading, for example, skimming or scanning, somehow their vocabulary comprehension influences their ability to complete what they read. According to Abdelrahman and Bsharah (2014) and Sutz and Weverka (2009), skimming for
information can expedite your reading time if you have many reading materials waiting (McNamara & Kintsch, 1996). This is because they only focus on important information they need to know. However, as students have stuck on the vocabulary themselves, this influences the reading speeds as they concentrate on the words. One of the reasons students read slowly is their need for language exposure (Anderson et al., 2010), which might influence their comprehension level.

**Pedagogical Implication**

Pedagogically, reading is needed to help Chinese undergraduate students improve their reading. Exposures to different text types are necessary as this is crucial to develop their vocabulary. As their main problem stems from their difficulty in understanding different vocabulary they hardly encountered, providing them with different reading text types for reading in the classroom and reading materials to bring home are among the suggestions to be implemented. To help Chinese undergraduate students reading ability develop, they should be encouraged to read more as the amount of input from the reading help them to improve their vocabulary comprehension. Thus, improve their reading skills which are “important for the continuing development of language and literacy skills” (Cunningham & Stanovich, 1998 as qtd in Van Der Kleij et al., 2022, p. 515)

**Conclusion**

This paper aims to identify Chinese students' self-perceived reading ability that hinders reading comprehension. The findings indicated there is a need for an implementation for teaching reading. Reading is an interaction between texts and readers, and perceives as an 'active skill.' Helping Chinese students to comprehend what they read means allowing them to extract the correct information from the text. Therefore, students need help understanding words where they can have sufficient time to read, whether in the classroom or at home. As students tend to be equipped with good reading strategies, thus all they need is a course to develop their vocabulary comprehension and improve their reading speed. As teachers know students' reading ability, providing students with suitable materials and ways to employ the right reading strategies would lead to achieving the reading goal and improving the different reading domains that impede their vocabulary comprehension.

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References


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Abstract

Bloom's Taxonomy is a logically sequenced structure depicting the cognitive skills required for students to grasp knowledge comprehensively and meaningfully. The integration of Bloom’s Taxonomy into education promotes mastering the cognitive skills and analytical ability of learners. In this review article, the significance of integrating the taxonomy into instructional frameworks for novice teachers in the EFL context was explored. This article also aims to signify the importance of using Bloom’s Taxonomy as an instructional tool and aid for new teachers to help connect their theoretical knowledge with practical implementation in the classroom setting. Additionally, it focuses to revolve around the following research questions: What are the benefits of integrating Bloom’s Taxonomy into the teaching methods used by English as a Foreign Language (EFL) teachers, and how does it contribute to improving language learning outcomes and teaching effectiveness? Through a thorough examination of existing literature on integrating Bloom’s Taxonomy in the EFL context, this article presents evidence that showcases how Bloom’s Taxonomy empowers novice teachers to create more organized, diverse, and student-oriented lessons. The results of this review analysis demonstrate that using Bloom’s Taxonomy provides EFL teachers with a guide and diverse set of tools to support the development of language skills and cognitive abilities suitable for all types of learners. The review article goes beyond addressing the challenges that novice teachers face, offering a framework that helps new educators master their teaching skills which could result in better language acquisition for EFL students.

Keywords: assessment, Bloom’s Taxonomy, collaborative learning, the EFL context, cognitive skills, novice teachers

Introduction

To effectively communicate, one should develop critical thinking skills. This is particularly imperative in EFL settings to foster analytical and proper evaluation skills in students. Educators must develop effective lesson plans and assessment tools to achieve it. One of the proven practical approaches to achieving educational goals is to devise educational materials based on Bloom’s Taxonomy.

This article profoundly reviews existing studies on the advantages of implementing Bloom’s Taxonomy for preservice teachers in the EFL setting. The article also aims to explore the benefits and limitations of integrating the taxonomy into the EFL classroom and its immense role in designing instructional approaches that can significantly enhance the quality of English language classes for novice teachers. Furthermore, this review article intends to offer essential guidelines and recommendations and valuable insights from existing literature regarding the proper implementation of Bloom’s Taxonomy for preservice educators.

Bloom’s Taxonomy of Educational Objectives was created by Benjamin Bloom and a group of psychologists dealing with cognitive skills to streamline the process of making standardized annual examinations and aligning educational goals across acidic organizations (Bloom, 1956). The ultimate goal was to decrease the amount of labor required to administer these exams while promoting higher forms of thinking (Krathwohl, 2002).

Bloom’s Taxonomy may help novice and veteran instructors build their lesson plans as a method that develops higher-order thinking abilities and stimulates student involvement, as stated by Krathwohl (2002). Educators can develop the required skills in students by gradually integrating the six stages of the taxonomy into their lesson plan objectives. It will enable students to implement critical thinking abilities in acquiring a target language. Unfortunately, not all language teachers design their instructional strategies under the hierarchical stages of the taxonomy.

Literature Review

Bloom’s Taxonomy

Bloom’s Taxonomy has gained immense popularity in the EFL context for its potential to enhance language learning outcomes. It offers a framework for triggering the cognitive skills of learners as well as designing targeted learning objectives. Bloom’s Taxonomy focuses on the intellectual skills of individuals and categorizes the learning process into six different cognitive processes (Radha et al., 2021). This review article analyzes existing literature on the benefits, challenges, and limitations of integrating the framework for novice EFL teachers.

The framework of Bloom’s Taxonomy suggests a sequential learning process in which the foundational theoretical knowledge moves on to more complex forms of practical learning, such as analysis, synthesis, and evaluation (Nentl & Zietlow, 2008).

It can assist inexperienced and veteran teachers in engaging in more critical reflection on the instruction and evaluation of necessary thinking abilities. Adams (2015) describes Bloom's taxonomy as a structure that consists of six cognitive skill categories covering a range of abilities. “These categories start with fundamental skills that require minimal cognitive effort and progress to more advanced skills that involve deeper learning and greater cognitive engagement” (p. 152).

Remembering: The act of remembering involves recollecting information or understanding that one had previously acquired.
Understanding: This stage entails understanding the content's significance, extrapolating from it, and providing a personal explanation.

Applying: Applying ideas and methods to solve issues and accomplish tasks at this level entails utilizing the knowledge in a new setting or context.

Analyzing: At this level, analysis of complex information, recognition, and connection of linked ideas is fostered.

Evaluating: Here, the learners are encouraged to evaluate the information by judging and constructing arguments based on specific rules and principles.

Creating: This stage includes generating new ideas by combining prior knowledge and concepts with new ones.

Adams (2015) states that teachers can employ taxonomy as a framework to generate instructional objectives that articulate the specific skills and competencies they aim for their students to acquire and showcase. Additionally, the research by Gul et al. (2020) indicates the following:

Teachers should dedicate their time to creating instructional approaches that foster advanced cognitive abilities in students, thereby enhancing their academic achievements. They can employ various methods to facilitate critical thinking and active engagement among students, such as encouraging discussions, promoting independent information retrieval, establishing connections between cause and effect, soliciting student perspectives, incorporating diverse characters, and relating concepts to real-world scenarios (p.258).

Importance of Bloom’s Taxonomy

Bloom’s Taxonomy consists of a six-level logically arranged structure involving different cognitive processes, varying from critical thinking to concept development.

According to Krathwohl (2002), even inexperienced educators can use the framework to create instructional objectives appropriate for their students' developmental stages. They can also modify their instructional approach to address the diverse learning needs of students using Bloom’s taxonomy.

At this juncture, Marzano (2001) suggests that Bloom's Taxonomy serves as a framework for novice educators to plan learning experiences that facilitate the development of higher-order questions and tasks. It supports a more profound comprehension of concepts and provides opportunities for student-organized interactions and functions. Likewise, McTighe and Wiggins (2005) point out that it is crucial to ensure that the learning objectives are appropriately aligned with the required level of thinking skills. Riazi et al. (2010) proposed some instructional techniques to promote the implementation of Bloom’s taxonomy in textbook content teaching. It included generating an appropriate plan for textbooks with fewer shortcomings that specified learning and teaching stages. The authors argued that educators in high schools could not go beyond developing LOTS (lower-order thinking skills)in students; therefore, learners were not able to examine, evaluate, or apply HOTS (higher-order cognitive skills) when they were at the university level. If
proper instructional tactics were employed at each stage of the taxonomy, the learners would have a chance to develop higher-order thinking abilities (Fadel & Trilling, 2009).

When teachers are newly employed, they usually face difficulties assessing their learners. The use of Bloom’s taxonomy can be of great help for novice educators to improve the authenticity of their assessments by easily aligning them with the learning objectives of students. Bloom’s Taxonomy integration also aids new educators in determining to what extent the learners have accomplished the educational purposes regarding the student’s level of cognitive process.

Benefits of Bloom’s Taxonomy Integration into Education

The six stages of the taxonomy can be used to modify instructional strategies with different learning requirements (Tomlison, 2014). The learners will have various chances to display their learning inputs through different suitable challenges at every stage of the taxonomy.

Additionally, Sousa and Tomlinson (2011) highlight that educators can design educational opportunities that align with students' current cognitive capabilities and subsequently utilize feedback and repetitive instruction to facilitate classroom management and the advancement of the learning process.

Another advantage for novice teachers to employ Bloom’s Taxonomy is that it fosters the critical thinking ability of students. Athanasiou et al. (2003) proposed that creating different assessments to analyze, synthesize, and make logical guesses by implementing the taxonomy as a teaching method, increased the level of student engagement and better essential critical thinking abilities. The authors state that Bloom's Taxonomy has the potential to facilitate the development of learning objectives and assessments that promote critical thinking among students, which can help students better prepare themselves academically and professionally. If the students are challenged, they are more likely to understand and appreciate what is being taught (Krathwohl, 2002).

As to the taxonomy integration into classroom instruction, it can be used in various approaches, including inquiry-based learning, project-based learning, or problem-based learning.

An inquiry-based learning educational methodology focuses on bringing the learner’s complete engagement to the class by fostering their curiosity and critical thinking skills through quick question-answer and exploration processes (Krathwohl, 2002). Bloom’s Taxonomy aids in generating educational objectives and suitable assessments that advance students’ cognitive skills.

Sasson et al. (2018) investigated the significance of critical thinking and question-posing abilities in project-based learning for students. The authors stated that project-based learning employed in different educational contexts helps foster students’ critical thinking and higher-order thinking skills.

Bloom’s Taxonomy helps develop the critical thinking abilities of learners in a Project-Based Learning (PBL) setting. The study of Wang (2022) employed Bloom’s Taxonomy stages as a framework to advance analytical skills in learners. Analysis of his research study revealed that learners developed higher-order thinking skills through comprehending and analyzing reading texts concerning real-world events. The learners were able to combine multiple skills to provide evaluations of the readings and could confidently make decisions regarding the reading project.

Integrating Bloom’s Taxonomy in project-based teaching and learning requires students to evaluate the pertinence of various credible sources, collaborate with their peers, and evaluate the sources they’ve collected.
As Athanasiou et al. (2003) stated, novice educators can utilize Bloom's Taxonomy to facilitate successful classroom instruction via inquiry-based, project-based, or problem-based learning approaches. Teachers can enhance their students' readiness for academic and vocational triumphs by developing learning objectives and assessments that prompt students to interact with course material at varying cognitive levels.

**Challenges and Limitations**

Many studies reviewed invaluable insights into using Bloom’s Taxonomy in the EFL context. Meanwhile, it is significant to highlight that there are limitations of the studies that used the theory in terms of methodological consistency, the experience of EFL preservice teachers in implementing the taxonomy, and the theory-practice gap.

This review article examined the importance of integrating the taxonomy into EFL classrooms despite the scarcity of research that directly explores limitations and challenges from the viewpoint of novice EFL teachers. The limitation of published sources underscores the necessity for additional research focusing on preservice educators. Existing research studies have a primary focus on the theoretical aspects of Bloom’s Taxonomy integration into educational purposes rather than practical implementation of it for novice teachers. It could potentially limit the usefulness of the taxonomy for new EFL teachers because of the gap resulting from the theoretical framework and its practical implementation in the actual classroom environment.

It's been proven that implementing Bloom’s Taxonomy in educational settings as a prominent tool to generate instructional objectives, tasks, and assessments has successfully worked for years because it aimed to develop learners’ cognitive skills hierarchically. However, without proper training or support from veteran instructors, it could create immense problems for novice teachers to employ taxonomy appropriately in their teaching methodology.

Lack of knowledge could lead to misunderstandings and incorrect implementation of the taxonomy's levels, resulting from a lack of instruction and practice. Novice teachers are not familiar with proper strategies for aligning the learners' language learning objectives to a relevant level of taxonomy. Thus, they may not be able to consider the students' cognitive abilities when designing lesson plans and assessments. Novice teachers struggle with integrating Bloom's Taxonomy into language learning due to the critical requirement of a thorough comprehension of the language proficiency levels of their students (Riazi & Mosalanejad, 2010). The biggest challenge new teachers may encounter when using the taxonomy in the EFL context is creating assessment questions that effectively evaluate the cognitive competence of learners. Riazi and Mosalanejad (2010) stated that novice teachers may struggle to create assessment questions that align with learning objectives and adequately measure students' cognitive skills. It results in exams that do not meet learning objectives or accurately measure cognitive skills.

At this juncture, Athanasiou et al. (2003) suggested that the taxonomy focuses on developing the cognitive skills of learners, overlooking the emotional component of learning as a whole.

Besides, implementing specific verbs in Bloom’s Taxonomy to ensure that both higher- and lower-order thinking skills are appropriately leveled is significant for language teachers to bear in mind when conducting a lesson constantly. Many novice educators know that employing Bloom’s Taxonomy gives fruitful learning outcomes; however, they still face challenges in selecting appropriate verbs and cognitive levels when dealing with mixed classrooms of high-achieving and low-achieving students. The results of Zohar and Dori’s study (2009) suggested that
encouraging multi-leveled students, regardless of their academic achievement to participate in activities involving the HOTS by properly implementing appropriate verbs of six stages in Bloom’s taxonomy greatly benefitted the students’ academic progress.

Besides, inexperienced educators may encounter challenges when applying Bloom's taxonomy, primarily due to limited resources such as time, materials, and support. The novice teachers face difficulties structuring a well-designed lesson plan and assessments due to limited resources and time (Chien & Lee, 2018). Lack of support and teaching resources deficiency creates another obstacle to the productive implementation of the taxonomy in the ELF context.

Above all, novice teachers generally apply theoretical knowledge rather than practical one when conducting a class because of the lack of teaching experience. Teaching is a complex process as it involves using and incorporating multiple types of expertise concurrently when educating the students (Shulman, 1986; Smith & Neale, 1989). To effectively and successfully conduct the classes by implementing Bloom’s taxonomy, the teachers require specific knowledge in seven distinct areas: content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their unique characteristics, understanding of educational contexts, and knowledge of educational ends, purposes, and values (Shulman, 1987).

**Recommendations for Implementation Bloom’s Taxonomy**

Bloom’s Taxonomy offers valuable guidance on generating level-appropriate instructional objectives and assessments for their learners. The taxonomy helps EFL teachers align the students’ learning outcomes to the hierarchical stages of taxonomy and tailor a lesson design accordingly.

Research conducted by Gokhale (1995) suggested that when applied in a multi-level classroom environment, Bloom’s Taxonomy has had an encouraging effect on the cognitive skills of students, fostering their language skills and creativity.

Bloom et al. (1956) asserted that novice teachers can face difficulties in employing taxonomy in a teaching context without appropriate training and professional aid. Smith and Altieri (2019) suggested that new educators would greatly benefit from attending professional development training on the proper implementation of Bloom’s Taxonomy in their lesson planning and assessment aligned to an appropriate hierarchical stage of taxonomy. Mullen (2017) promoted the idea that continuous support and constructive feedback given by veteran teachers to the novice during the internship years can help effectively incorporate Bloom’s taxonomy into the teaching practices of novice teachers.

Kencana et al. (2022), in their research study, concluded that the learning process significantly improves when activities and tasks are aligned with the learning objectives of students. It would greatly benefit students to understand the lesson content and also contribute to the professional growth of teachers.

Additionally, using real-life examples can aid novice teachers in understanding and comprehending better the cognitive skills required for each taxonomy level (Bloom, 1956). The novice teachers can develop their expertise in understanding the cognitive skills for each hierarchical stage of Bloom’s Taxonomy by seeking guidance from professionals with experience in the teaching field (Smith & Altieri, 2019). Additionally, creating a collaborative learning environment where teachers can provide and receive feedback can help them gain insight into different teaching strategies and approaches according to Onafowora (2005). The author also states
that novice teachers can overcome challenges by peer-reviewing one another’s classes and by working with veteran colleagues who share best practices and experiences in their field of teaching.

Having said it, in a teaching context, Bloom’s Taxonomy can benefit novice teachers in designing their educational goals upon the necessary acquisition and training on instructional guidance, constructive evaluation and feedback, and a collaborative learning environment that will later aid them to meet learners’ academic objectives by designing instructional methods that foster cognitive skills students.

All in all, the significance of implementing Bloom’s Taxonomy in the EFL context is invaluable, for it aids novice teachers with approaches to design the best instructional objectives that develop critical thinking skills suitable for different types of learners.

Conclusion

This review article examined the integration of Bloom’s Taxonomy into the context of teaching English as a Foreign Language (EFL) for novice teachers. It addressed the benefits, challenges, and limitations of implementing the taxonomy to frame educational instructions in the EFL setting. The review has revealed that using Bloom’s Taxonomy fosters the students’ engagement in the classroom and stimulates critical thinking ability and problem-solving skills in learners in the English language setting. The article has also explored the taxonomy’s excessive emphasis on developing cognitive skills and its rigid structure that triggers challenges in designing instructional methods for preservice educators. The review identified limitations in previous studies, remarkably inconsistent implementation quality, and a lack of exploration of the viewpoints of preservice educators on Bloom’s Taxonomy. When refining educational practices and training sessions, it is essential to take these factors into account to empower new EFL teachers to incorporate the taxonomy efficiently into their initial practical lessons.

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Insights into Chinese College English Undergraduates’ Higher Order Thinking Skills

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Abstract
In recent years, educational institutions, administrators, and college EFL teachers in China have advocated for increased emphasis on fostering English undergraduates’ higher-order thinking skills. The relevant studies are widely limited in theoretical approaches without extensive empirical examination of Chinese English undergraduates’ higher-order thinking. Therefore, it is significant to conduct empirical research to explore English undergraduates’ higher-order thinking attitudes and skills separately. This study also assesses their correlation and the impact of different learning stages and language proficiencies on these aspects. By doing this, the study holds substantial significance for empirical inquiries into the characteristics of English undergraduates’ HOTS, serving as the reference for Chinese EFL teachers to implement higher-order thinking instructions. A quantitative design of questionnaires and tests was employed on a sample of 240 Chinese-English undergraduates from Hebei Finance University. The data analysis contained descriptive statistical analysis, independent-sample T-test, one-way ANOVA, and Pearson correlation analysis. The findings show that although the responding participants have relatively positive attitudes toward higher-order thinking skills, they exhibit variations in their ability to utilize them. Differences in learning stages and language proficiency do not significantly influence the development of the respondents’ higher-order thinking skills. There is no significant correlation between higher-order thinking attitudes and skills among the participants, indicating that having a positive inclination to higher-order thinking differs from having the skills to think.

Keywords: Chinese English undergraduates, critical thinking, higher order thinking, higher order thinking attitude, higher order thinking skills, learning stages and language proficiency

Introduction

Higher Order Thinking (HOT) is becoming more and more critical because of accelerating changes, intensifying complexity, escalating interdependence, and increasing danger (Paul & Elder, 2006) since many employers have put forward disappointments and complaints from some places in the world, like America, the United Kingdom, and Europe (Bennett et al., 2000) as well as China. A mismatch exists between what employers require and what graduates acquire regarding skills such as reasoning and problem-solving (Bennett et al., 2000). Therefore, HOT is considered a vital necessity of the new century, especially after the information explosion (Halpern, 2003).

The prominent significance of higher-order thinking skills (HOTS) is obvious. Still, some Western scholars think that Asian students are deficient and weak in thinking abilities from a universal stance (Stapleton, 2001). The research conducted by Stapleton (2001) and Davidson (1995) showed that Japanese students in Asia not only possessed higher-order ideas but also displayed the ability to think critically. These studies provided evidence that instruction of critical thoughts could be effectively implemented in EFL classrooms. This finding has significant implications for other Asian countries, such as China, where similar initiatives could be carried out. The exploration of thinking skills in China started in the late 1980s, considerably later than in Western nations. Notably, Chinese scholars such as Wen (1999) and Luo (2001) initiated their research on thinking skills. EFL scholars in China first paid attention to undergraduates thinking in the 1990s (Huang, 1998). Huang proposed the “Absence of Critical Thinking” phenomenon among Chinese EFL teachers and learners, first in 1998 and 2010, eleven years after. It is a pity that thinking skills are the weakness of Chinese English undergraduates (Sun, 2011). Higher education in China puts more and more emphasis on cultivating higher-order thinking skills (Wu, 2012). According to Wen (2006), it is essential and necessary for Chinese college EFL teachers to improve English undergraduates’ thinking abilities in EFL instructions.

After reviewing the previous research, the researcher finds that most studies of HOT in China are conducted in primary and secondary schools. Theoretical interests in HOTS have rapidly grown across disciplines in recent years, and studies are primarily scattered and mainly restricted to theoretical perspectives but not to empirical perspectives. In China, many studies on the introduction of HOTS and integration of HOTS, as well as factors hindering the thinking skills of English undergraduates, still stay at the discussion and proposal stage (Huber & Kuncel, 2016; Zhang, 2019; Zhang, 2020). Many references demonstrated the significance of implementing HOTS in an EFL classroom without empirical data and cases for reference (Huang, 2010; Xue, 2014; Sun, 2017). Furthermore, limited systemic empirical studies are focused extensively on the characteristics of English undergraduates’ HOTS attitude, HOTS level, and the relationship between them.

Therefore, this study aims to explore the characteristics of Chinese English undergraduates’ HOTS attitude and HOTS level. Investigating the characteristics of students’ HOTS holds significant value for empirical studies that aim to enhance their HOT, serving as the guideline for Chinese EFL educators in effectively incorporating HOTS instructions into their teaching practices. The specific objectives of this study are to independently examine the characteristics of Chinese English undergraduates’ HOTS attitudes and levels, and the correlation between the two variables. Within this framework, the study also explores the impact of varying language proficiencies and learning stages on the manifestation of HOTS attitude and level. Based on the research objectives, the following specific research questions (RQ) are set up:
Question One: What are the characteristics of Chinese English undergraduates’ HOTS attitude?
   a. What are the characteristics of Chinese English undergraduates’ HOTS attitude regarding different learning stages?
   b. What are the characteristics of Chinese English undergraduates’ HOTS attitude regarding different language proficiency?

Question Two: What are the characteristics of Chinese English undergraduates’ HOTS level?
   a. What are the characteristics of Chinese English undergraduates’ HOTS levels in different learning stages?
   b. What are the characteristics of Chinese English undergraduates’ HOTS level regarding different language proficiency?

Question Three: What is the relationship between Chinese English undergraduates’ HOTS attitude and HOTS level?

This paper will first do a literature review of the studies on HOTS and its relevant studies concerning HOTS attitude and HOTS level. Then, it will introduce the research method containing this study’s participants, instruments, and data analysis. Finally, in the last sections of this paper, findings, discussions, conclusions, and implications based on the research results will be presented.

Literature Review

Higher Order Thinking Skills

Despite unclear definitions, the term “Higher Order Thinking Skills (HOTS)” could refer to human’s mental process of analysis, evaluation, and creation, which was widely engaged in complicated cognitive activities like reflective thinking, reasoning, problem-solving and critical thinking (Bloom, 1956; Glaser, 1984; Lewis & Smith, 1993; Barak & Dori, 2009). Brookhart (2010) provided a more practical definition of HOTS, in which HOTS was divided into three categories: 1) transfer, 2) critical thinking, 3) problem-solving. Another higher-order thinking skills framework was Bloom’s Taxonomy. According to Bloom’s (1956) taxonomy, analyzing, synthesizing, and evaluating skills were categorized into higher-order thinking skills. In contrast, remembering, understanding, and applying skills are lower-order thinking skills. Halpern (2006) holds that critical thinking is not only a simple and mechanical skill but also contains skills like judgment, analysis, and synthesis. These skills were categorized as HOTS in the thinking pyramid model developed by Bloom. From the above literature, definitions proposed by different scholars have shown some of the most essential characteristics of HOTS. Bloom’s taxonomy framework about HOTS (analyze, synthesize, and evaluate) was one of the most influential ones. Under the framework of Bloom’s taxonomy about HOTS, questions in the HOTS instrument designed for assessing the participating English undergraduates’ HOTS in this study were developed based on the components of HOTS mentioned above, like skills of analyzing, problem-solving, decision-making, inferences, evaluative thinking, and reasoning. Different items assessed various aspects of HOTS. The details of this instrument will be stated in-depth in the next section of the research method.
**HOTS in EFL Context**

HOTS is becoming essential to education, especially in higher educational systems (Zohar & Cohen, 2016; Roets & Maritz, 2017). One of the fundamental purposes of school education is to achieve students’ HOTS, like observing things, accepting and analyzing new ideas, and testing an issue’s positive and negative sides (Willingham, 2007). According to Ahmad and Ismail (2017), several studies indicate that HOTS is predominantly employed in science and engineering fields in higher education. Others maintain that HOTS can also be fostered in non-science majors, such as English language (Resnick, 1987; Carter, 2004; Li, 2016). According to Numrich (2011a), developing critical thinking is crucial in language instruction. Many researchers hold that EFL teachers and scholars understand what strong influence thinking skills have on language proficiency since “Critical thinking (CT) tends to expand the learning experience of students, making language learning deeper and more meaningful” (Zhao, Pandian, & Singh, 2016, p.14). Moreover, Facione (2001) claimed that students needed to use their critical thinking skills to express ideas critically through the language, using some interdisciplinary essential thinking skills like analyzing, inference, and evaluating to promote L2 learning.

Compared with students from Europe or other areas in Asia, whose native language was also not English, Chinese English undergraduates were not worse in pronunciation, intonation, and language sensitivity. The most prominent deficiency was pronounced weak thinking abilities (Zhang & Wen, 2022). A language environment seldom surrounded most Chinese students, so they had little chance to experience authentic English in a traditional Chinese EFL classroom (Yu, 2019). Based on Wen’s research (2010a), the English undergraduates had relatively positive attitudes toward HOT, and the HOTS of English undergraduates were not worse than any other majors. The participants of Wen’s study were first-year to third-year students with better academic performance in high-quality universities in China. Future research can further investigate English undergraduates at an average proficiency level in China’s ordinary colleges.

**HOTS Study in China**

The study of thinking skills in China began in the late 1980s, much later than in Western countries. During the first twenty years, studies on thinking in China stayed at the introduction and discussion stage. Basic concepts and theories about thinking and cognition were introduced without empirical studies. According to Luo (2001), although scholars in psychology, nursing, math, and education were the first group to recognize the importance of thinking skills development, comprehensive and systematic research was still lacking. Some researchers proposed their theories, emphasizing the significance and methods for thinking skills development (Luo, 2001; Wen, 2010a). The second period of thinking skills studies in China transferred to the application and further development in the Chinese context. Theoretical studies, empirical studies, and thinking assessments characterized this period. Theoretical studies predominantly focused on applying foreign findings in the Chinese context, focusing on integrating thinking skills with other disciplines. Some Chinese scholars began to do empirical studies on dispositions of higher-order thinking (Wen, 2006; Xue, 2014). Foreign language scholars in China first paid attention to undergraduates’ thinking skills in the 1990s (Huang, 1998), drawing some scholars’ attention (Wen, 2006; Liu, 2005; Huang, 1998). Using foreign thinking assessment tools, researchers modified and created practical tools to assess thinking skills in Chinese EFL contexts (Luo, 2001; Wen, 2009).
Previous researchers all hold that Chinese learners do not have a solid willingness to criticize or question authority and do not have a habit of practicing critical thinking skills (Li, 2016). According to Wu (2017), there is a long-term tradition of rote learning and knowledge remembering instead of evaluating or creating for Chinese education, not to mention the summary-oriented assessment model. Against this background, China’s Ministry of Education launched the National Criteria of Teaching Quality for Undergraduate English Majors in 2018. The new national curriculum claims university EFL majors should foster HOTS and language proficiency. Unfortunately, implementing and teaching HOTS has not become a widespread practice in Chinese higher education (Huber & Kuncel, 2016). The results in this aspect were few in the early years, and the overall quality of the research was poor. Wen (2010a), a research pioneer of HOT in China, argued that there were only a few empirical and systematic studies on the current situation of college students’ HOT compared with foreign countries. In China, the exploration and suggestions for the implementation of higher-order thinking Skills (HOTS) in English undergraduates, as well as the impediments to their thinking abilities, have mainly remained in the realm of theoretical deliberation (Huber & Kuncel, 2016; Zhang, 2019; Zhang, 2020). Furthermore, there is a lack of comprehensive empirical studies that delve deeply into the attitudes and levels of HOTS among English undergraduates and their interrelation. Therefore, based on the research background and the reviews above, conducting a study concentrating on the characteristics of Chinese English undergraduates’ HOTS is necessary and significant.

Factors affecting HOTS

Learning phases and academic performance are two significant factors affecting thinking skills (Kelly, 2010). Bekie, Lowry, and Barnett’s study (2001) argued that seniors’ HOT disposition was not significantly improved since they were preoccupied with employment concerns. Facione et al. (2001) discovered that the critical thinking disposition scores either remained stable or improved after tracing the progression of 147 students’ four-year college learning, indicating a positive correlation between participants’ higher-order thinking skills and their increases in academic knowledge. Rosyati and Rosna (2008) conducted research among Malaysian undergraduates to find out the correlation between HOTS and language proficiency. They have said that English proficiency is positively related to thinking abilities with the help of thinking instruments and official English tests. Nikpour (2011) completed a study focusing on HOTS and language learning among Iranian students. And it showed a positive correlation between Iranian language learning and way of thinking. Malmir and Shoorcheh (2012) and Najme Bagheri (2018) researched HOTS and speaking among Iranian undergraduates, finding a significant relationship between HOTS and speaking proficiency, and training in HOTS positively affects students’ learner speaking. In her empirical research, Xue (2014) found no significant difference in HOTS regarding different learning stages. Based on the above, the researcher intends to explore whether there is a positive relationship between Chinese English undergraduates’ HOTS level and different language proficiencies. While previous scholars have examined the influence of these factors on thinking skills, most merely presented their research findings without providing further details or explanations. Therefore, this study aims to delve deeper into these two variables to analyze Chinese English undergraduates’ HOTS.
Method

Under the research framework of the research objectives, a quantitative design supported by HOTS attitude questionnaires and assessment data will be employed to achieve the above objectives. Descriptive statistical analysis such as mean, standard deviation, percentages, and \( p \)-value is used to analyze the five-point Likert-scale HOTS attitude questionnaires and the HOTS assessment. Independent-sample T-test and one-way ANOVA analysis are used to investigate if different stages of learning and language proficiency influence HOTS. Finally, Pearson correlation analysis shows the relationship between the responding Chinese English undergraduates’ HOTS attitudes and HOTS.

Participants

According to Wen’s (2009) research results on Chinese undergraduates’ cognitive condition, a critical period of undergraduates’ development of thinking skills is from the second to the third year. The research participants of this study include 120 second-year (sophomores) and 120 fourth-year (seniors) English undergraduates enrolled in the School of Foreign Languages for International Business (SFLIB) at Hebei Finance University in China. This study adopts the convenience and purposive sampling method of choosing eight intact classes in two grades with 30 members in each class, a total of 240 students. All of them have participated in TEM-4 \(^1\) (Test for English Majors, Band4), an authoritative and compulsory examination for all English undergraduates in China. The TEM-4 grade has a passing score of 60 points, classified into four levels: fail, pass, good, and excellent. The score ranges for each group are as follows: below 60 points is considered Fail; 60-69 points is considered Pass; 70-79 points is considered Good; 80 points and above is considered Excellent. The participants’ language proficiency will be determined based on their scores in TEM-4. The ones who scored Excellent and Good of 120 sophomores (26 students) are classified as high achievers, the ones scoring Pass are moderate achievers (65 students), and the Fail ones as low achievers (29 students). The same classification applies to the 120 seniors, with 30 high achievers, 64 moderate achievers, and 26 low achievers. The respondents’ demographic information regarding gender, grades, and language proficiency is presented in Table One. All facts about the respondents mentioned above will support this study.

Table 1 The Demographic Figure of Participants

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>14.6%</td>
</tr>
<tr>
<td>Female</td>
<td>205</td>
<td>85.4%</td>
</tr>
<tr>
<td>Grades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade Two</td>
<td>120</td>
<td>50%</td>
</tr>
<tr>
<td>Grade Three</td>
<td>120</td>
<td>50%</td>
</tr>
<tr>
<td>Language Proficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>56</td>
<td>23.3%</td>
</tr>
<tr>
<td>Moderate</td>
<td>129</td>
<td>53.6%</td>
</tr>
<tr>
<td>Low</td>
<td>55</td>
<td>22.9%</td>
</tr>
</tbody>
</table>

Research Instruments

The quantitative HOTS instrument in this study consists of two sections. The first part is a 5-Likert Scale questionnaire to investigate the responding students’ attitude toward HOTS, and the second part is a HOTS test to assess their HOTS level. An adapted Critical Thinking Attitude Scale (Akatsuka, 2019) will be used for the first section of the HOTS assessment. The adapted scale tends to measure the attitude of several cognitive domains: Awareness of logical thinking...
Insights into Chinese College English Undergraduates’ Higher Order Thinking Skills

Yin & Abdul Samat

(13 items), Critical thinking (10 items), Inquiry mind (7 items), Objectivity and evaluation (3 items). They are considered to be essential elements of HOTS. Participants must complete 33 items on a Likert scale, ranging from 5 (strongly agree) to 1 (strongly disagree). It can be assigned into 5, 4, 3, 2, and 1 point, respectively, with total points ranging from 33 to 165. Four points and above in each item mean strong tendency, and three are considered positive. The higher the scale score, the more positive the respondent’s attitude toward a particular thing or topic. Therefore, participants who received above 99 are considered to have a positive HOTS attitude, and ones getting 132 are categorized as having a strong tendency. By contrast, the respondents receiving less than 99 points are of a negative attitude. Before conducting a comprehensive analysis, the researcher assessed the reliability and normality of the scale items to ensure the integrity of the quantitative data analysis throughout the process. The reliability of the 33 items, measured by Cronbach’s alpha, yielded a value of 0.881. Sub-scale alphas range from 0.546 to 0.863, which indicates a highly acceptable internal consistency and reliability.

The second section is a HOTS test. There did not exist any scientific instruments developed initially in China. Therefore, measuring tools for assessing Chinese students’ thinking skills are translated and adopted directly or re-edited from Western instruments. Some Chinese researchers tested the feasibility of some Western instruments and found that they are applicable in China (Wang, 2008; Wen, 2010c). To improve the reliability of the assessment, the researcher needs to choose one instrument most proper for the Chinese participants of this study. Concerning the research objectives and participants of this study, the HOTS instrument utilized will be designed by referring to the framework and components of Watson-Glaser Critical Thinking Appraisal (WGCTA), Critical Thinking Skills Assessment (CTSA), and Wen’s framework (2010b). Though with different descriptions, after analyzing the sub-scales of the above instruments, the researcher finds that the core assessed thinking skills are the same: analyzing, problem-solving, decision-making, inferences, evaluation, and logic deduction and can be categorized into three main segments: Analysis, Synthesis, and Evaluation, which are considered to be HOTS. Afterward, the HOTS-level instrument of this study consists of 30 multiple-choice items with ten questions for each assessed cognitive domain: Analysis, Synthesis, and Evaluation. The percentage score assesses higher-order thinking skills (HOTS). The HOTS level was calculated by comparing the percentage score to the HOTS level category in Table Two. Because the study included Chinese certificates of TEM-4 candidates, the TEM-4 scoring system is referred to as a standard category. The results reflect the HOTS levels among Chinese English undergraduates. Since the respondents of this study are Chinese, the HOTS assessment instrument will be conducted in Chinese to avoid misunderstanding of languages and ensure the validity of assessing results.

Table 2. The Category of HOTS Level with Score Percentage

<table>
<thead>
<tr>
<th>Score Percentage</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>80.0% - 100.0%</td>
<td>Very High</td>
</tr>
<tr>
<td>70.0% - 79.9%</td>
<td>High</td>
</tr>
<tr>
<td>60.0% - 69.0%</td>
<td>Moderate</td>
</tr>
<tr>
<td>40.0% - 59.9%</td>
<td>Low</td>
</tr>
<tr>
<td>0.0% - 39.0%</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

Research Procedures

Before doing the research, the researcher will ask for permission from SFLIB to conduct the survey. The researcher then explained the research objectives and ensured that the study’s
implementation would not interfere with the regular teaching in SFLIB. Moreover, the researcher will inform the participants that their information and answers for questionnaires or other instruments will be confidential and only be used for this study. The data collection instruments will be distributed when the responding students are gathered together in a classroom for formality. This way, the researcher can offer timely explanations if students have doubts or problems completing. Afterward, the researcher integrated and interpreted the quantitative data to answer the research questions.

Results

Results of HOTS Attitude Questionnaires

A summary of the descriptive statistics of Chinese English undergraduates’ attitudes toward HOTS, containing the number of participants, the maximum, the minimum, mean, and standard deviation, is listed below in Table Three.

<table>
<thead>
<tr>
<th>Four Domains (33 Items)</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of logical thinking</td>
<td>240</td>
<td>26</td>
<td>65</td>
<td>42.64</td>
<td>11.96</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>240</td>
<td>21</td>
<td>50</td>
<td>39.3</td>
<td>9.6</td>
</tr>
<tr>
<td>Inquiry mind</td>
<td>240</td>
<td>16</td>
<td>35</td>
<td>25.13</td>
<td>6.37</td>
</tr>
<tr>
<td>Objectivity and evaluation</td>
<td>240</td>
<td>5</td>
<td>15</td>
<td>10.75</td>
<td>2.62</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>240</td>
<td>77</td>
<td>165</td>
<td>117.82</td>
<td>30.55</td>
</tr>
</tbody>
</table>

According to the four domains of HOTS items, the perceived data showed that the responding English undergraduates generally have relatively positive attitudes towards HOTS (M=117.82, SD=30.55). Moreover, a significant disparity is between the highest and lowest scores, with a maximum score of 165 and a minimum score of 77. This reveals that the educational environment has failed to cultivate a conducive atmosphere for students to foster higher-order thinking attitudes.

Differences in HOTS Attitude Concerning Learning Stages

A summary of the descriptive statistics of Chinese English undergraduates’ attitudes toward HOTS, containing the number of participants, grades, mean, standard deviation, and p-value, is listed below. Independent-sample T-test is combined to show whether any differences exist between them. Table Four below lists the specific descriptive data from participants of different grades.

<table>
<thead>
<tr>
<th>Four Domains (33 Items)</th>
<th>Grade</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of logical thinking</td>
<td>Grade 2</td>
<td>120</td>
<td>40.19</td>
<td>5.76</td>
<td>.018</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>Grade 2</td>
<td>120</td>
<td>37.73</td>
<td>5.67</td>
<td>.778</td>
</tr>
<tr>
<td>Inquiry mind</td>
<td>Grade 2</td>
<td>120</td>
<td>40.73</td>
<td>5.57</td>
<td>.115</td>
</tr>
<tr>
<td>Objectivity and evaluation</td>
<td>Grade 2</td>
<td>120</td>
<td>24.83</td>
<td>3.28</td>
<td>.090</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Grade 2</td>
<td>120</td>
<td>114.07</td>
<td>12.31</td>
<td>.090</td>
</tr>
</tbody>
</table>

According to the findings presented in Table Four, there is a minor disparity in the general attitude toward HOTS between sophomores and seniors. The ratio of positive attitudes towards...
HOTS is 114.07 for sophomores and 121.36 for seniors, indicating that seniors are slightly more positive towards HOTS. However, it is essential to note that both grades exhibited positive attitudes. Despite the positive attitudes, neither grade showed a strong tendency towards HOTS. These findings suggest that further exploration is needed to understand the factors influencing the variation in attitudes toward HOTS among sophomores and seniors. This trend remains consistent across almost all dimensions of HOTS.

**Differences in HOTS Attitude Concerning Different Language Proficiency**

After thoroughly investigating the difference in HOTS attitude across distinct learning stages, the researcher wants to examine the disparity in HOTS attitude depending on various degrees of language competency. The one-way ANOVA analysis investigated the difference between the three language proficiency groups. The results from participants with multiple levels of language competence and college degrees are shown in Table Five.

Table 5. **HOTS Attitude concerning different language proficiency**

<table>
<thead>
<tr>
<th>Four Domains (33 Items)</th>
<th>Achievers</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of logical thinking</td>
<td>High</td>
<td>56</td>
<td>44.02</td>
<td>7.36</td>
<td>.073</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>42.66</td>
<td>6.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>40.93</td>
<td>7.69</td>
<td></td>
</tr>
<tr>
<td>Critical thinking</td>
<td>High</td>
<td>56</td>
<td>39.55</td>
<td>5.72</td>
<td>.142</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>39.67</td>
<td>5.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>37.87</td>
<td>6.26</td>
<td></td>
</tr>
<tr>
<td>Inquiry mind</td>
<td>High</td>
<td>56</td>
<td>25.68</td>
<td>3.82</td>
<td>.429</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>25.02</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>24.89</td>
<td>3.36</td>
<td></td>
</tr>
<tr>
<td>Objectivity and evaluation</td>
<td>High</td>
<td>56</td>
<td>10.88</td>
<td>1.82</td>
<td>.819</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>10.74</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>10.65</td>
<td>1.76</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>High</td>
<td>56</td>
<td>120.13</td>
<td>13.45</td>
<td>.083</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>118.09</td>
<td>13.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>114.35</td>
<td>15.09</td>
<td></td>
</tr>
</tbody>
</table>

The findings presented in Table Five provide compelling evidence that high achievers do not possess a significantly stronger inclination (p=0.083) towards HOTS compared to their moderate and low-achieving counterparts, not only in the aspect of the general HOTS but also in each sub-scale. Specifically, the average scores for HOTS among high achievers were found to be 120.13, slightly higher than the scores of 118.09 recorded for moderate achievers and 114.35 for low achievers. This suggests that although the high achievers perform well academically overall, they may not have a notably stronger inclination towards higher-order thinking skills than their peers who achieve at lower levels.

**Results of HOTS Level Tests**

Table Six shows the distribution of respondents according to the category of HOTS level based on their total percentage score in the HOTS instrument. A summary of the descriptive statistics of Chinese English undergraduates’ levels of HOTS, containing the number of participants, the maximum, the minimum, mean, and standard deviation, is listed below in Table Seven.

Table 6. **The frequency and percentage of students according to the category of HOTS level**

<table>
<thead>
<tr>
<th>Level of HOTS</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>2</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
From Table Six, more than half of the participating English undergraduates (63.8%) have low levels of HOTS. Only two (0.8%) and thirteen (5.4%) out of 240 students have high and good levels of HOTS. And 20.4% of students score moderate. Therefore, the students whose HOTS level is above moderate are only 64 (26.6%) out of 240 participants. Moreover, 23 (9.6%) students still scored less than 11 points, which means their HOTS level is very low.

Table 7. General characteristics of HOTS level

<table>
<thead>
<tr>
<th>Categories (30 Items)</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>13</td>
<td>0</td>
<td>10</td>
<td>4.50</td>
<td>1.86</td>
</tr>
<tr>
<td>Moderate</td>
<td>49</td>
<td>0</td>
<td>10</td>
<td>6.19</td>
<td>1.58</td>
</tr>
<tr>
<td>Low</td>
<td>153</td>
<td>1</td>
<td>9</td>
<td>4.89</td>
<td>1.66</td>
</tr>
<tr>
<td>Very Low</td>
<td>23</td>
<td>9</td>
<td>28</td>
<td>15.57</td>
<td>3.21</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>0</td>
<td>28</td>
<td>15.57</td>
<td>3.21</td>
</tr>
</tbody>
</table>

Table Seven demonstrates that respondents exhibit variations in their ability to utilize each sub-skill of HOT. Participants excel in the synthesis aspect (Mean=6.19), followed by evaluation (Mean=4.89) and analysis (Mean=4.50). There is a significantly polarized difference between the highest and lowest scores in each category (10:0; 10:0; 9:1) as well as in total (28:9). And the average score of HOTS in total is only 15.57. This places the participants’ overall performance in the “Low Level” category, as determined by the Score Percentage in Table Two. Based on the statistics above, the respondents’ abilities to identify arguments, deduct logic, solve problems, evaluate or compare views, and draw conclusions may vary.

Differences in HOTS Concerning Learning Stages

A summary of the descriptive statistics of Chinese English undergraduates’ level of HOTS regarding different learning stages, containing the number of participants, mean, standard deviation, and p-value, is listed below. Independent-sample T-tests are combined to show whether any differences exist between them. Table Eight below lists the specific descriptive data from participants of different grades.

Table 8. HOTS Level concerning different learning stages

<table>
<thead>
<tr>
<th>Three Categories (30 Items)</th>
<th>Grade</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Grade 2</td>
<td>120</td>
<td>4.47</td>
<td>1.80</td>
<td>.441</td>
</tr>
<tr>
<td></td>
<td>Grade 4</td>
<td>120</td>
<td>4.53</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td>Grade 2</td>
<td>120</td>
<td>6.08</td>
<td>1.51</td>
<td>.074</td>
</tr>
<tr>
<td></td>
<td>Grade 4</td>
<td>120</td>
<td>6.30</td>
<td>1.64</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Grade 2</td>
<td>120</td>
<td>4.77</td>
<td>1.59</td>
<td>.650</td>
</tr>
<tr>
<td></td>
<td>Grade 4</td>
<td>120</td>
<td>5.01</td>
<td>1.72</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Grade 2</td>
<td>120</td>
<td>15.32</td>
<td>2.99</td>
<td>.342</td>
</tr>
<tr>
<td></td>
<td>Grade 4</td>
<td>120</td>
<td>15.83</td>
<td>3.41</td>
<td></td>
</tr>
</tbody>
</table>

Based on the data shown in Table Eight, no statistically significant disparity was observed between the overall HOTS and each sub-skill of sophomores and seniors. However, when considering the overall HOTS score, including each sub-skill, seniors perform better than sophomores, indicating that their additional years of education have allowed them to refine these skills further, leading to their enhanced overall performance in HOTS. Nevertheless, although seniors perform better overall than sophomores, they are still at the Low level.
Differences in HOTS concerning different language proficiency

As previously indicated, the researcher aims to investigate whether language students with higher-order thinking skills perform better in their language proficiency. The one-way ANOVA analysis examined the difference between the three language proficiency groups. The results are shown in Table Nine.

Table 9. HOTS Level concerning different language proficiencies

<table>
<thead>
<tr>
<th>Three Categories (30 Items)</th>
<th>Achievers</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>High</td>
<td>56</td>
<td>4.57</td>
<td>1.80</td>
<td>.695</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>4.54</td>
<td>1.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>4.31</td>
<td>2.04</td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td>High</td>
<td>56</td>
<td>6.36</td>
<td>1.78</td>
<td>.548</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>6.09</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>6.25</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>High</td>
<td>56</td>
<td>5.36</td>
<td>1.52</td>
<td>.052</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>4.74</td>
<td>1.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>4.76</td>
<td>1.92</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>High</td>
<td>56</td>
<td>16.29</td>
<td>3.40</td>
<td>.167</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>15.37</td>
<td>2.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>55</td>
<td>15.33</td>
<td>3.79</td>
<td></td>
</tr>
</tbody>
</table>

Based on the data above in Table Nine, there is no statistically significant difference between the respondents’ HOTS level and their language proficiency (p=0.167), both in their overall scores and within each category of HOTS. Further examination of the data reveals that high-achieving students had an average HOTS score of 16.29, slightly higher than their moderately achieving counterparts (15.37) and low achievers (15.33). Interestingly, the data precisely aligns with what has been presented in Table Five, indicating that high achievers do not have a more positive inclination toward HOTS.

Relationship between Students’ HOTS Attitudes and HOTS Level

After a descriptive statistical analysis of Chinese English undergraduates’ HOTS attitude and level, the researcher aims to investigate the relationship between the two variables in this section. The overall relationship between the two variables, with the help of the Pearson correlation coefficient, is displayed in Table 10 below.

Table 10. Relationship between HOTS attitude and HOTS [Pearson Correlation / Sig. (2-tailed)]

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
<th>HOTS Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of logical thinking</td>
<td>.047 / .465</td>
<td>-.020 / .754</td>
<td>.025 / .696</td>
<td>.030 / .639</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>.082 / .204</td>
<td>-.022 / .732</td>
<td>.097 / .132</td>
<td>.087 / .180</td>
</tr>
<tr>
<td>Inquiry mind</td>
<td>-.010 / .873</td>
<td>-.021 / .749</td>
<td>.104 / .108</td>
<td>.037 / .564</td>
</tr>
<tr>
<td>Objectivity and Evaluation</td>
<td>.109 / .092</td>
<td>-.077 / .234</td>
<td>-.051 / .428</td>
<td>-.001 / .982</td>
</tr>
<tr>
<td>HOTS attitude Total Score</td>
<td>.070 / .279</td>
<td>-.035 / .589</td>
<td>.073 / .260</td>
<td>.061 / .347</td>
</tr>
</tbody>
</table>
The data analysis reveals no significant correlation between HOTS attitude and HOTS level (p=.347>0.05), indicating that having a positive attitude to HOT conceptually differs from having the skills to think. For example, a negative correlation exists between Awareness of logical thinking and Synthesis (-.020 / .754), suggesting that individuals who demonstrate a stronger inclination towards logical thinking tend to perform worse in the logical deduction and interpretation of information. The situations are similar in other groups of comparison.

**Discussion**

The previous section’s statistical data analysis uncovers some findings regarding the three research questions in this study.

**RQ One: What are the characteristics of Chinese English undergraduates’ HOTS attitude?**

In this study, the data results in the previous section indicate that the responding English undergraduates have relatively positive attitudes toward HOTS. The findings presented in the study are consistent with the research conducted by Wen (2006) that Chinese English undergraduates have a positive attitude toward critical thinking. Kelly (2010) further concludes from empirical evidence that Chinese students tend to rely on preconceptions, authorities, or others for answers or solutions rather than exercising independent judgment based on truth, evidence, and reasoning. Wen (2006) argues that English undergraduates’ learning materials and study methods tend to limit their cognitive development. Moreover, the findings in Table Four have demonstrated that the increase in learning stages does not significantly influence the development of English undergraduates’ HOTS attitude (p=.090). In other words, progress in learning stages does not necessarily lead to advancements in HOTS, and vice versa. Among all four domains, sophomores excel over seniors in the Inquiry mind domain, albeit the difference is not statistically significant. This finding may indicate that sophomores are more enthusiastic about exploring new concepts and are more receptive to diverse ideas. However, seniors surpass sophomores in the remaining three domains. In addition, it is worth mentioning that there are remarkable distinctions between the two groups of data in terms of their Awareness of the logical thinking domain, which was found to have a statistically significant p-value of 0.018. These findings suggest that the level of understanding and application of logical reasoning differ significantly between the two groups under investigation. Finally, the data results in Table Five indicate no statistically significant difference in the general HOTS attitude and each sub-scale between high, moderate, and low academic achievers. These findings contradict previous research conducted by Facione et al. (2001), who also found a connection between critical thinking disposition and participants’ academic performance.

**RQ Two: What are the characteristics of Chinese English undergraduates’ HOTS level?**

The findings in Table Seven align with the qualitative study of Huang (2010), which focused on what is known as the “Syndrome of Critical Thinking Absence.” This finding contradicts the results obtained by Wickersham (2006), who found that most participants in their study excelled in the sub-skills of analysis and evaluation. The poor performance in Analysis and Evaluation suggests that participants struggle to present their arguments logically and effectively, make analytical reasoning based on evidence, and clearly state their ultimate conclusion. This syndrome has been suggested to be caused by a practice in which English
teachers detest thinking but emphasize language flow in their instruction (Wen, 2010a). Another factor contributing to the syndrome is the cultural value placed on conformity in Chinese society. Traditionally, Chinese culture emphasizes respect for authority and adherence to established norms. Consequently, students may find it challenging to challenge existing paradigms or think critically, as doing so can be perceived as disrespectful or rebellious. This cultural influence further perpetuates the absence of HOTS among Chinese college English undergraduates.

Furthermore, according to the data presented in Table Eight, there is no statistically significant difference in HOTS level regarding different learning stages. The findings showed in the study are consistent with the insightful research conducted by Xue (2014), which examined the cognitive abilities of seniors compared to sophomores. Jorge (2010) argued that the analysis of critical thinking development should incorporate various variables. Bekie, Lowry, and Barnett's study (2001) supports this notion by demonstrating how seniors, driven by the urgency to graduate, become preoccupied with employment concerns, diminishing their thinking skills. This lack of significant differentiation in the overall HOTS score and the three sub-skills between sophomore and senior students raises concerns about the college education system’s failure to cultivate these crucial abilities in English learning.

Finally, the data presented in Table Nine indicates no statistically significant difference in HOTS between the three language proficiency groups ($p=.167$). The findings challenge the results of Facione’s empirical study conducted in 2000, which suggested that academic competence plays a significant role in predicting cognitive abilities. This unexpected result challenges the assumption that higher language proficiency positively correlates with higher HOTS scores. This also suggests that although the high achievers perform well academically overall, they may not have a notably stronger inclination towards higher-order thinking skills than their peers who achieve at lower levels. These findings prompt a reconsideration of the factors that contribute to HOTS performance. Other variables beyond language proficiency alone may influence these skills.

**RQ Three: What is the relationship between Chinese English undergraduates’ HOTS attitude and HOTS level?**

The findings in Table suggest that thinking attitude and thinking skills do not progress simultaneously ($r=.201/376$). This indicates that no specific higher-order thinking attitude can be directly linked to any particular higher-order thinking skill. In other words, these two components of HOT do not significantly impact or contribute to each other’s development. Negative correlations highlight the complexity and multifaceted nature of HOT, suggesting that individuals may possess strengths in specific dimensions while exhibiting weaknesses in others. The results above are consistent with Facione’s (2001) and Xue’s (2014) research, showing a weak correlation between participants’ thinking attitudes and thinking skills. In other words, these two aspects of HOT do not exert any influence or contribute to each other. This reiterates Facione’s (2007) conclusion that thinking disposition and skills are separate entities within an individual.

**Conclusion**

This study aims to investigate Chinese English undergraduates’ attitudes and levels of HOTS, focusing on assessing the correlation between them and the impact of different learning stages and language proficiencies on these aspects. The findings above indicate that the
responding English undergraduates have relatively positive attitudes towards HOTS while exhibiting variations in their ability to utilize each sub-skill of HOT. And the participants’ overall performance is in the “Low Level” category. This study additionally states that no notable difference is observed in HOTS attitude and HOTS level among sophomores and seniors, as well as between high achievers and low achievers. Last but not least, there is no apparent relationship between English undergraduates’ HOTS attitude and HOTS level. These insights have significant implications for developing and assessing HOTS in educational contexts. It is important to provide explicit instruction in HOTS as a separate subject and integrate HOT instruction across various disciplines. It is essential to emphasize that developing students’ skills within different disciplines alone may not be enough without fostering a certain mindset to apply those skills effectively.

Endnotes
1. TEM-4 (Test for English Majors-Band 4), the National College English Majors-Band 4 Examination. It has been administered by China’s Ministry of Education since 1991 and examines English majors in comprehensive universities nationwide. The exam aims to comprehensively assess students’ ability to use basic language skills and their mastery of grammatical structures and word usage. It also aims to test students’ overall language ability and individual language skills.

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References


Students Attitudes Towards Oral Corrective Feedback: A Case Study from Oman

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Abstract
Understanding students' attitudes toward oral corrective feedback is pivotal. This case study explored English Language Omani students’ attitudes toward teachers’ oral corrective feedback strategies to check the congruence between teachers' and students' preferences. We raised the following questions: What types of oral corrective feedback are used by teachers and preferred by students? Observational data were collected from two Omani English teachers to discern the types and frequencies of Oral Corrective Feedback utilized. Additionally, semi-structured interviews with six students were conducted to gain a holistic view of their perspectives and preferences. Classroom observations were quantitatively scrutinized for data analysis, whereas the interview data underwent a grounded theory procedure. The data demonstrated that teachers predominantly employed the 'recast' type of feedback. Notably, students showcased a generally positive attitude towards Oral Corrective Feedback. They preferred the 'repetition' and 'elicitation' feedback types. Moreover, internal factors, like personal motivation and language proficiency, and external factors, such as curriculum challenges and teacher personalities, emerged as significant influencers of their attitudes and choices. The study unearthed an incongruence between students' preferences and the teachers' actual Oral Corrective Feedback practices. This incongruence suggests potential impediments to the effectiveness of feedback in facilitating optimal learning experiences. There is a need to bridge the gap between teaching practices and student preferences to improve learning outcomes and feedback.

Keywords: Oral Corrective Feedback, teaching practices, congruence, teachers’ perceptions, Students’ preferences

Introduction

Oral Corrective Feedback (OCF) is instrumental in enhancing students' proficiency in the English language. Specifically, feedback in this context pertains to the deliberate remarks and insights teachers provide in their classrooms to both encapsulate students' performance and highlight areas needing improvement (Al Ghaithi, 2023; Askew & Lodge, 2000; Cameron, 2001; Çoban, 2021; Ha, 2023; Köroğlu, 2022; Lewis, 2002; Rassaei, 2019).

However, a divergence has been noted in the extant literature between students' preferences for OCF and the feedback approaches adopted by teachers. Several studies have indicated that teachers often grapple with implementing the most appropriate OCF strategies in their classrooms, primarily due to the myriad subtypes within the OCF spectrum (Ellis, 2009). There is a growing consensus among researchers suggesting that, for OCF to be genuinely beneficial, it should align with the student's specific learning needs (Al Ghaithi, 2023; Ammar & Spada, 2006; Çoban, 2021; Ellis, 2006, 2009; Ha, 2023; Lewis, 2002; Lyster & Saito, 2010).

A significant body of research has scrutinized the dynamic between teachers' OCF strategies and the perceptions held by students. A recurrent theme from such studies indicates that students generally favor error corrections (Katayama, 2007). However, this positivity varies based on the specific feedback type provided by the educators (Lochtman, 2002). Recent developments in Second Language Acquisition (SLA) show an emerging correlation between educators' pedagogical beliefs and their actual classroom practices concerning OCF.

While an abundance of both experimental and observational studies underlines the efficacy of OCF in facilitating second language acquisition, there remains a research gap concerning the interplay between teachers' beliefs and their OCF practices, especially within the Omani educational context. Given this backdrop, the present study investigates students' perceptions of OCF within the Sultanate of Oman. Therefore, this paper investigates the congruence between teacher and student preferences. It is hypothesized that incongruence hinders effective learning. The study purports to:

- Examine teachers’ OCF practices.
- Examine students’ attitudes towards OCF.
- Identify the factors that influence students' attitudes.

We raise the following research questions:

- What types of oral corrective feedback are used by teachers?
- What are students' attitudes toward oral corrective feedback?
- What factors influence students’ attitudes?

The present study operationalizes OCF as "the reactive information that learners receive regarding the linguistic and communicative failure of their utterances" (Mackey, 2007, p. 14).

This report seeks to provide an overview of the existing research on OCF, outline the methodology employed in our current study, analyze our findings, and offer recommendations for improving and enhancing OCF teaching practices based on the insights we have gained.

Literature Review

Ellis (2006) and Lewis (2002) state that Oral Corrective Feedback (OCF) is a pedagogical practice that offers learners specific insights regarding their performance during the process of acquiring a second language. Chaudron (1988) concludes that “feedback is a complex phenomenon with several functions” (p. 35). At its core, they further add that OCF serves as a
mechanism enabling learners to pinpoint their linguistic errors, thereby facilitating improved language acquisition (Lewis, 2002). Essentially, Ellis (2006) states that OCF is a responsive action to students’ incorrect verbal expressions, necessitating an initial identification or discernment of these errors before feedback can be dispensed. Within the same realm of thought, Ferris and Hedgcock claim that: “teacher feedback also provides the opportunity for instruction to be tailored to the needs of individual students through face-to-face dialogue in teacher-student writing conferences and through the draft-response-revision cycle, during which teachers help students through their written commentary at various points” (Ferris & Hedgcock, 2005, p. 185).

Within academic circles, there is a prevailing sentiment that OCF is indispensable in second language acquisition. One of the chief merits of OCF is its capacity to aid students in rectifying erroneous linguistic assumptions, thereby preventing the extrapolation of these mistakes in broader contexts (Ancker, 2000; Carrol & Swain, 1993; Nassaji & Swain, 2000). A converging theme in several studies underscores the recognition by both educators and learners of the instrumental role OCF plays in language acquisition (Ammar & Spada, 2006; Ellis, 2009; Lyster & Saito, 2010).

However, alongside these endorsements, OCF has its detractors and complexities. One facet of contention stems from some educators' concerns that the interjection of OCF might disrupt the natural flow of communication. Contrastingly, some educators harbor anxieties that leaving students' mistakes unaddressed might lead to the permanent embedding or 'fossilization' of these errors (Guénette, 2007). An often-overlooked dimension of this debate is the students' attitudes toward OCF, which, when not gauged correctly, could impact its efficacy (Havranek & Cesnik, 2001). Adding to this discourse, Tayebipour (2019) conducted a study that unearthed a pronounced disparity in performance between student cohorts receiving feedback and those not.

The realm of OCF in the context of English as a Foreign Language (EFL) teaching has garnered significant scholarly attention, with research projects spanning various geographical contexts and pedagogical settings. Çoban (2021) embarked on a study to understand the congruence between Turkish EFL instructors' professed beliefs and their tangible classroom practices concerning OCF. While many educators acknowledged the merits of OCF, there was a perceived need for its judicious application, given the potential implications on learners' affective dispositions. A noteworthy observation was the prevalence of recasts, owing to their implicit character, even though many educators opined that elicitation was the most potent feedback mechanism. A discernible gap emerged between educators' convictions and their pedagogical strategies, especially concerning the nature of errors addressed in the classroom.

Similarly, Ha (2023) scrutinized Vietnamese EFL instructors' perspectives and pedagogical methods concerning OCF. While there was an overarching consensus on the benefits of OCF, a discrepancy was evident: while prompts were largely considered superior to reformulations, the latter found frequent application in classroom settings. This disparity can be attributed to various contextual considerations and the intricate interplay of varied belief structures with classroom methodologies. Moreover, a consistent observation underscored the imprecision inherent in the linguistic formulations employed in feedback by educators.

Al Ghaithi (2023) discerned a quantifiable positive influence of interactional corrective feedback on EFL students' writing prowess. Correspondingly, survey findings illuminated students' emphasis on the invaluable nature of such feedback emanating from educators.

Rassaei (2019) compared the ramifications of dynamic versus non-dynamic OCF concerning EFL learners' mastery of English wh-questions across three distinct instructional
sessions. Intriguingly, the dynamic feedback paradigm showcased superior outcomes for L2 development compared to its non-dynamic counterpart. A meticulous assessment of interactions during these sessions further elucidated the unique advantages of dynamic feedback in bolstering L2 acquisition.

Yüksel (2021) explored the harmony, or lack thereof, between EFL university instructors' stated beliefs and their classroom feedback practices. While there were palpable inconsistencies between educators' declared beliefs and their on-ground actions, there was notable alignment regarding specific feedback tenets, such as the timing and agency of error correction. However, despite discernibly ineffective OCF methods, educators staunchly defended their pedagogical choices, especially those with pronounced belief-practice incongruities.

Saeb (2017) delved into the perceptual differences between educators and learners concerning feedback quantity, modalities, and error correction priorities. Notably, students exhibited a marked preference for explicit corrective feedback, in contrast to their educators. To reconcile these divergent feedback perceptions and enhance error correction efficacy, 'meta-correction' was proposed as a pedagogical innovation within the Iranian EFL context.

While many experimental and observational studies underscore the effectiveness of OCF in facilitating learning, there still needs to be a research gap concerning the interplay between teachers' beliefs and their OCF practices, especially within the Omani educational context. Therefore, the present study examines students' perceptions of OCF within the Sultanate of Oman. Consequently, this paper examines the congruence between teacher and student preferences. Incongruence is hypothesized to hinder effective learning.

The academic discourse posits that the efficacy of OCF is intricately tied to its typology (Harmer, 2000; Ellis, 2009; Lyster et al., 2013). Taxonomies of corrective feedback abound in the literature, with illustrious scholars like Ellis (2009) and Lyster et al. (2013) delineating six primary feedback categories: recast, repetition, clarification request, explicit correction, elicitation, and paralinguistic signal. An illustrative summary encompassing definitions and exemplars of these feedback varieties is encapsulated in Table One.

<table>
<thead>
<tr>
<th>Corrective feedback Strategy</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recast</td>
<td>The corrector incorporates the content words of the immediately preceding incorrect utterance and changes and corrects the utterance in some way (e.g., phonological, syntactic, morphological, or lexical)</td>
<td>L: I went there two times. T: You’ve been. You’ve been there twice as a group?</td>
</tr>
<tr>
<td>2. Repetition</td>
<td>The corrector repeats the learner's utterance, highlighting the error through emphatic stress.</td>
<td>L: I will showed you. T: I will SHOWED you. L: I’ll show you.</td>
</tr>
<tr>
<td>3. Clarification request</td>
<td>The corrector indicates that he/she has not understood the learner's words.</td>
<td>L: What do you spend with your wife? T: What?</td>
</tr>
<tr>
<td>4. Explicit correction</td>
<td>The corrector indicates an error has been committed, identifies it, and corrects it.</td>
<td>L: On May. T: Not on May, In May. We say, “It will start in May.”</td>
</tr>
<tr>
<td>5. Elicitation</td>
<td>The corrector repeats part of the learner's utterance but not the erroneous part and uses rising</td>
<td>L: I’ll come if it will not rain. T: I’ll come if it ……?</td>
</tr>
</tbody>
</table>
Students Attitudes Towards Oral Corrective Feedback

<table>
<thead>
<tr>
<th>6. Paralinguistic signal</th>
<th>intonation to signal that the learner should complete it.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The corrector uses a gesture or facial expression to indicate that the learner has made an error.</td>
</tr>
<tr>
<td></td>
<td>L: Yesterday I go cinema. T: (gestures with right forefinger over left shoulder to indicate past)</td>
</tr>
</tbody>
</table>

*Note 1.* Adopted from Ellis (2009, p. 9)

**Method**

With its exploratory nature, this research employed a mixed-methods approach (Creswell, 2013) to delve into students' attitudes towards Oral Corrective Feedback (OCF). With a primary objective to shed light on and elucidate the intricacies of the topic, and as advocated by AlAbri (2022), the study embraced an interpretive framework aimed at yielding qualitative insights into the phenomenon at hand.

**Participants**

For the study, six Grade 10 students, purposefully selected based on Patton's (2002) sampling approach, were brought into the research ambit. These students hailed from secondary schools in Oman in the AY 2021-2022, with their age bracket falling between 16 and 17 years old. Gender distribution was meticulously maintained, ensuring equal representation of male and female participants. To further enrich the study's scope, classroom observations of two educators were conducted, capturing real-time pedagogical methods and interactions. Rigorous measures, as advocated by Mirza et al. (2023), were instituted to uphold the privacy and anonymity of the participants.

**Research Instruments**

In data collection tools, semi-structured interviews formed the bedrock of capturing students' perspectives and attitudes towards OCF. Parallelly, the educators' classroom practices were scrupulously observed, focusing specifically on their deployment of OCF. For this, the study relied on a lesson observation checklist, an adaptation of Ellis's (2009) work (as referenced in Table One above).

**Research Procedures**

A multi-pronged strategy was employed as the research moved towards the analysis phase. The observational data, capturing classroom dynamics, underwent a quantitative content analysis to decipher the various types of OCF employed. Descriptive statistical tools were then harnessed to tabulate the frequency with which each OCF type surfaced in the observed lessons. On the other hand, the rich qualitative data procured from the student interviews were subjected to Charmaz's (2006) grounded theory analytical framework. This involved a three-part process consisting of initial, focused, and theoretical coding, following the methods of Charmaz (2006) and Glaser (1978). By adopting such a comprehensive approach, the research not only illuminated students' attitudes but also juxtaposed them against actual classroom practices, providing a holistic understanding of the OCF landscape in the context of Omani secondary schools.
Results

Observations

In the classroom observations, a predominant reliance on the recast strategy by teachers to provide feedback became evident.

Table 2: Types and frequency OCF from lesson observation

<table>
<thead>
<tr>
<th>Oral corrective feedback types</th>
<th>Frequency (Teacher 1)</th>
<th>Frequency (Teacher 2)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recast</td>
<td>73.6</td>
<td>34.4</td>
<td>54</td>
</tr>
<tr>
<td>Clarification request</td>
<td>7</td>
<td>24.1</td>
<td>15.5</td>
</tr>
<tr>
<td>Elicitation</td>
<td>8.7</td>
<td>10.3</td>
<td>9.5</td>
</tr>
<tr>
<td>Peer correction</td>
<td>0</td>
<td>27.5</td>
<td>13.7</td>
</tr>
<tr>
<td>Repetition</td>
<td>3.5</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Explicit correction</td>
<td>5.2</td>
<td>0</td>
<td>2.6</td>
</tr>
<tr>
<td>Paralinguistic signal</td>
<td>1.7</td>
<td>0</td>
<td>0.8</td>
</tr>
</tbody>
</table>

As delineated in Table Two, the average frequency of the recast technique stands at 54. The clarification request follows with an average frequency of 15.5. Furthermore, elicitation is observed to be moderately employed, with a mean frequency of 9.5. Although not universally adopted, peer correction has a noteworthy mean frequency of 13.7. Strategies such as repetition and explicit correction have comparably lower averages, resting at 3.4 and 2.6, respectively. The least frequently used strategy appeared to be the paralinguistic signal, which exhibited a mean of 0.8. This distribution of feedback strategies provides invaluable insights into the prevailing classroom feedback dynamics.

Interviews

Positive Attitudes

The interview results unveiled the students' predominantly positive stance towards Oral Corrective Feedback (OCF). The participants expressed that OCF benefits their learning journey primarily by heightening their cognizance of linguistic errors. As demonstrated in the following excerpt:

"Students should receive OCF. Many students make errors, for example, when pronouncing some words, so they must be aware of these errors, which must be corrected as quickly as possible." (Extract 1 - Student 1)

Moreover, the students emphasized that OCF is pivotal in fostering a culture of self-improvement. It empowers them to rectify their mistakes autonomously, which is crucial for linguistic development. This sentiment is echoed in the subsequent quote:

"I am with correcting errors because if a person does not learn from his errors, he will not progress. If I do not know my error, I will continue with it, but I can correct it through feedback." (Extract 2 - Student 3)

Another intriguing insight was the communal dimension of OCF. The students perceived it as a catalyst that amplifies classroom interactions and collaborative learning. As one student insightfully observed:
"The teachers should give us OCF because this encourages students to speak with each other, and it also encourages collaboration."(Extract 3 - Student 1)

Additionally, there is an undercurrent of gratification associated with OCF. Students often experience a sense of accomplishment and validation when errors are identified and rectified. An instance of this sentiment is captured in the statement below:
"I was making mistakes when pronouncing a word, and my teacher corrected my mistake. I felt delighted that my mistake was corrected."(Extract 4 - Student 2)

Lastly, OCF emerged as a potent factor in enhancing students' self-esteem and encouraging active classroom participation. As one of the students eloquently expressed:
"Oral corrective feedback encourages me to participate more in the classroom, and that helps me to be self-confident and makes me eager to deal with my errors."(Extract 5 - Student 5)

The overarching theme suggests that OCF is perceived as a corrective tool essential in enhancing self-awareness, fostering collaboration, and boosting student self-confidence.

Preferences
Delving deeper into the nuances of the student preferences concerning Oral Corrective Feedback (OCF) types, the results elucidated their inclination toward specific methods: elicitation, repetition, and explicit correction. Their perspectives on these feedback types are articulated in the subsequent extracts:
"Elicitation, where the teacher repeats part of the sentence that I have said and stops to let me identify the error myself; correction raises my motivation."(Extract 6, Student 4)

"I prefer repetition, in which the teacher does not correct the error but only repeats the sentence and raises the voice in error, so I correct the error myself. I like this type, especially for my pronunciation errors."(Extract 7, Student 3)
"As the curriculum is difficult, I prefer explicit correction. My teacher is always helpful. He always provides clear, explicit corrections."(Extract 8, Student 1)

Nevertheless, it is essential to juxtapose these student preferences against the backdrop of actual classroom practices. Notably, while a considerable fraction of students elucidated a predilection for repetition and elicitation as OCF methods, classroom observations painted a contrasting picture. The most prevalent feedback strategy wielded by educators, as gleaned from the observations, was the 'recast' method. This disparity between student preferences and actual teaching techniques underscores a potential area for pedagogical introspection and recalibration. It suggests that aligning feedback mechanisms with student inclinations might enhance the overall effectiveness and receptivity of OCF in educational settings.

Underpinning Factors
Upon conducting an in-depth interview with the student participants, many factors influencing their attitudes and preferences regarding Oral Corrective Feedback (OCF) emerged. These factors can be broadly categorized into two domains: internal and external.
Internal Factors

The internal determinants predominantly revolved around the students' motivation and their proficiency in the language. Their comments elucidated a strong preference for the 'elicitation' method of OCF. This approach, where a teacher repeats part of a student's utterance and pauses to allow the student to self-identify the error, significantly boosted the learners' motivation. Students poignantly noted:

"Elicitation is where the teacher repeats part of the sentence that I have said and stops to let me identify the error myself. This type of correction raises my motivation."
(Extract 6 - Student 4)

"Elicitation: I like this type of OCF because it suits my language level. I think this helps me to progress more."(Extract 9 - Student 3)

External Factors

On the external spectrum, three principal factors surfaced from the data: the nature of the error, the teacher's persona, and the intricacies of the curriculum. A preference for the 'repetition' technique of OCF was noted among students, particularly when addressing specific errors like pronunciation. As one student explained:

"I prefer repetition, in which the teacher does not correct the error but only repeats the sentence and raises the voice in the error so that I correct the error by myself. I like this type, especially for my pronunciation errors."(Extract 7 - Student 3)

The curriculum's complexity was also pivotal in students' inclinations towards OCF types. Some expressed a predilection for 'explicit correction,' attributing it to the challenging nature of the curriculum and the proactive assistance from their educators. One student articulated:

"Because the curriculum is difficult, I prefer explicit correction. My teacher is he. He always provides clear, explicit corrections."(Extract 10 - Student 1)

It becomes evident that students' attitudes and preferences towards OCF are multifaceted and shaped by internal and external dynamics. Recognizing these variables can be critical in tailoring effective pedagogical strategies for language instruction.

Discussion

Observational data revealed that 'recasts' were the predominant OCF method used by teachers in response to the first research question regarding OCF types. Supplementary OCF techniques like clarification requests, elicitation, peer correction, repetition, explicit correction, and metalinguistic explanations played a peripheral role in classroom feedback. This phenomenon mirrors the trends highlighted in prior studies such as Al-Harrasi (2007), Lin (2009), Panova and Lyster (2002), and Yoshida (2008). The consistency in findings underpins the pervasive preference for recasts in pedagogical settings. Another layer of this phenomenon emerged in juxtaposing teachers' articulated beliefs with their demonstrative practices, as documented by Çoban (2021) and Ha (2023). Even though educators acknowledged the efficacy of elicitation, the frequency of recasts superseded it. Such discrepancies between belief systems and demonstrative practices were further underlined by researchers like Al-Harrasi (2007), Çoban (2021), Ha (2023), Koroğlu (2022), Saeb (2017), and Yüksel (2021), highlighting the roles of contextual nuances and varied belief systems.
Regarding students’ attitudes towards OCF, the narrative was overwhelmingly positive. They favored OCF techniques such as repetition, elicitation, and explicit correction, emphasizing the benefits of heightened error awareness, proactive error avoidance, facilitated self-correction, and enhanced classroom dynamics. The resonance of these findings with earlier studies, including those by Al-Harrasi (2007), Al Ghaithi (2023), Lin (2009), Rassaei (2019), Tayebipour (2019), and Yoshida (2008), testifies to the persistent favorability of OCF across diverse learner groups.

The study unearthed internal and external determinants to answer the third research question about discerning the factors that shape students’ attitudes. These findings harmonize with insights from Lyster and Saito (2010), who spotlighted the influence of variables such as curriculum design, activity context, linguistic competence, and demographic attributes like age and gender on OCF preferences. Consequently, the third objective of the present study, which contemplates the study’s overarching conclusions, reveals a prominent incongruence between student preferences and teachers' practices. The consistency of this observation, supported by prior research from Brown (2009), Fukuda (2004), Lee (2008), and Yoshida (2008), reinforces the prevalent gap between instructional methodologies and learner expectations regarding OCF, which might have negative impacts on practical learning.

Finally, it becomes evident that multifarious dynamics characterize the landscape of OCF. The findings of the present study are in line with findings from other studies like Al Ghaithi (2023), Çoban (2021), Ha (2023), and Rassaei (2019). While certain practices and preferences consistently emerge across studies, they are invariably molded by individual, pedagogical, and contextual factors. The intricate balance between teachers' practices, students' preferences, and influential determinants provides a comprehensive perspective on the OCF discourse, necessitating a holistic and nuanced approach to feedback in the language classroom.

**Conclusion**

The present study purports to examine the congruence between teachers’ practices of OCF and students’ preferences. The findings from this investigation underscore a prevailing conundrum in the pedagogical domain related to Oral Corrective Feedback (OCF). While teachers evinced a commendable understanding of OCF's merits, a palpable lacuna surfaced regarding their cognizance of students' OCF inclinations. The findings also, which ponder on the overarching conclusions derivable from the study, show a pronounced discordance between student preferences and teachers' practices emerges as a central theme. The consistency of this observation, corroborated by precedent studies from Brown (2009), Fukuda (2004), Lee (2008), and Yoshida (2008), reinforces the prevalent gap between instructional methodologies and learner expectations regarding OCF. This observation is a scholarly point of note and holds paramount pedagogical implications. The efficacy of OCF, as Han (2001) posits, hinges significantly on teachers' ability to align their feedback strategies with the aspirations and requirements of the students. The innate power of OCF in galvanizing learners’ motivation and receptiveness gets markedly amplified when delivered in sync with their preferences.

**Recommendations**

From an educational policy and strategy standpoint, these revelations beckon a reevaluation of teacher training curricula. Current professional development paradigms, while proficient in instilling the virtues of OCF, may require augmentative modules that foster a deeper teacher-student rapport, emphasizing the imperative of discerning and catering to students’ OCF preferences.
predilections. In doing so, the educational ecosystem can evolve towards a more tailored, receptive, and efficacious deployment of oral feedback, thereby accentuating the holistic learning journey for students. For effective learning, we recommend promoting current professional development training to emphasize aligning teachers' OCF with their students' preferences.

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The Relationship between the Use of Technology and Technology Addiction in Learning Foreign Language

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Abstract
In the last century, technology has become more commonplace than ever. Its effect continues to increase day by day in the field of education, training, and in many aspects of social life. Today people cannot protect themselves from its influence, which mostly leads to addiction. The present study aims to determine the relation between learners’ addiction to technology and the use of technology in foreign languages. The research is to address the following questions: “Are foreign language learners addicted to technology, and to what extent do they utilize technology in their learning of a foreign language?” The respondents consist of 277 students, male and female from the departments of English, French, and German language education. A survey consisting of 35 closed-ended questions was given to students in the three departments. The 5 Likert scale with 35 items was also used. The results were analyzed using descriptive statistics by means of the Spss program. The findings of the study revealed that the participants’ level of technology addiction is medium, and their competence in using technology in foreign language learning is low. Furthermore, the results indicate a significant difference in favor of upper grades in the use of technology.

Keywords: technology addiction, learning, Internet, foreign language, university learners, educational technology, English language teaching

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Introduction

From the Latin word *addicere*, “addiction” is a concept that has been subject to much debate for some considerable time. At its origin, “addiction” simply referred to giving over, being highly devoted, or engaging in behavior habitually, with positive or negative implications (Nutt & Nestor, 2018). In general, addiction is a relapsing, chronic brain disease characterized by the impulsive seeking and use of substances or virtual stimulants despite their harmful consequences. Because substances and virtual stimulants change the structure and functioning of the brain (Tarhan & Nurmedov, 2021). There are two types of addiction; substance addiction and behavioral addiction. Substance addiction is physiologically based on substances such as "alcohol, tobacco, heroin, cocaine, etc." while behavioral addiction is more related to behavior such as "gambling, sex, shopping, internet, etc.". Addictive behaviors are often experienced subjectively as “loss of control” - the behavior contrives to occur despite volitional attempts to abstain or moderate use (Griffiths, 1996). Medical researchers have found that substance and behavioral addictions consist of the same historical root (Courtwright, 2019). Like substance addicts, behavioral addicts produce similar brain changes, tolerance patterns, irresistible cravings, intoxication, and withdrawal experiences. They also show similar tendencies towards personality disorders and impulses. In 2013, the new edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a reference book for psychiatry, defined gambling disorders in a language indistinguishable from drug addiction. The editors also included "internet gaming disorder" as an addiction, defining it as a condition that needs further investigation. In 2018, the World Health Organization officially added "gaming disorder" to the International Classification of Diseases. New generation behavioral disorders, such as gaming disturbance, have been included in human life in recent years with the addition of technology and, especially Internet tools. Television, cell phones, computers, tabs, and the Internet have added the concepts of technology and Internet addiction to the literature. Technology has reached the present day by being shaped by industrial revolutions, which express the transition from a mode of production based on human or animal power to a mode of production in which machine power is effective (Öztürk & Dömbekçi, 2020). In the 18th century, the first industrial revolution started with the discovery of steam engines. It was called Industry 1.0, followed by the second industrial revolution with Industry 2.0 with the discovery of electricity and its use in mass production in factories at the beginning of the 20th century, and the third industrial revolution with Industry 3.0 with the introduction of information technologies, electronic systems, and the Internet in the 1970s. Finally, the current state of the information society is called Industry 4.0 and, thus, the fourth industrial revolution. Industry 4.0 represents the new form of production, also known as the Internet of Things, in which living or non-living things can communicate and interact with the widespread use of artificial intelligence and the Internet. Smart production systems are active, and cyber-physical systems are used. Toffler (1980), on the other hand, classifies the important changes that have taken place throughout human history in three dimensions. According to Toffler, the first wave was the agricultural revolution, which took place in the first millennium. The second wave is the industrial revolution. This revolution took place over three hundred years. The third wave is the current information and technology revolution. Nowadays, the most important and most valuable element is information. Therefore, there is now a society that produces and uses information. This society is called "Society 5.0". There is a smart society or a digital society that uses technology most effectively with applications on computers, smartphones and smart wristbands in social life. While explaining the significant changes experienced by humanity, Toffler also draws attention to the possible negative effects of
technological development on human relations. In Future Shock (1970), Toffler emphasizes that technology weakens human relationships and reduces the duration of the relationship between them, thus isolating people. People now have short-term friendships with other people and have far fewer friends in real terms. On the other hand, thanks to technology, humanity is making new friends. Today, people have friends who tell them what they want to know. Amazon's Alexa, Amazon's robotic speech device manager and interface, Google's Google Assistant, and Apple's Siri are with people more than their kind of friends. It is as if they are talking to each other. When a question is asked to Alexa or Siri, they can respond immediately. They even recognize their owners' voices, know some commands. They are happy to learn about new instructions. They can activate many household appliances. Moreover, the human has other friends besides these. Smartphones that he rarely leaves his side, robot vacuums that clean the house. If technology continues to develop at this rate, super artificial intelligence robots that can talk, analyze, and solve problems will soon accompany humans. Considering this impressive transformation in human life, Shadbolt and Hampson transformed Desmond Morris' "naked ape" analogy of human beings into the "digital ape" in 1967 (2019). Today's people, unlike their predecessors, have a digital identity. Because an important feature of the digital person's living space is facilitated by the prevalence of digital networks. In this way, they have universal information, universal access, universal choice, and universal geography. On billions of smartphones or many other portable devices, digital people can check any fact, study, and learn any theory in a short time, no matter where they are. These billions of digital people have universal maps in their hands that know where they are, and these devices tell them how to get to another place and how long the journey can currently take with different forms of transportation. Maps know the exact state of traffic congestion in all countries, distributed from countless phones and other sensors transmitting information. Digital people can buy almost anything online with a few clicks or a credit card. Online stores can also both customize and personalize purchases. They can even consult a doctor online without going to the hospital. Many daily tasks, from education to law to social services, can be easily accomplished digitally. In the 21st century, everyone is intertwined with and surrounded by technology like never before. Each of us can become dependent on technology, either continuously or periodically, in line with our needs, expectations, and desires. To what extent can we benefit from the technology that affects our social life so much in the learning process? While we can use technology to an extreme extent in daily life, how much place does it occupy during learning? The study highlights the relationship between technology addiction and the use of technology in learning a foreign language. The present research brings a new perspective for teachers of foreign language and students and raises awareness regarding the relationship between these two phenomena. The study seeks answers to the following questions.

1- Are foreign language learners dependent on technology?
2- To what extent do students benefit from technology while learning a foreign language?

**Literature Review**

In the last quarter century or so, technology has developed more rapidly than in previous years, mainly thanks to the Internet, and since the late 1990s, it has encompassed almost every aspect of our lives. Unlike other generations, Generations Y, and Z grew up with technology. Generation Z has been constantly exposed to tools equipped with technology, especially the Internet. They were introduced to television at an average age of 12 months, cell phones at 12-23
months, and computers and tablets at 24-35 months. Research also shows that approximately 30.2% of children used technological tools for the first time between 0-12 months, 39.6% between 13-24 months, and 30.2% between 24-48 months (Meral & Şahin, 2019). And this does not discriminate against any nationality. China Internet Network Information claims that 27.3% of the world's 485 million internet users are young people, and even in countries like Indonesia, where technological growth is slower than in other countries, nearly 80% of young people use the internet daily (Kurniasanti et al. 2019). Scholars question whether young people's use of and exposure to technology is an indicator of technology addiction (Adorjan & Ricciardelli, 2021; Gavurova et al. 2022; Chen & Nath, 2016; Shahin et al. 2022; Alkhunaizan, 2019; Şimşek, Elciyar & Kızılhan, 2019; Rahardjo & Mulyani, 2020; Yusof & Othman, 2018; Neverkovich et al. 2018; Aysu, 2020)

The negative and positive results of technology are analyzed by a great many of researchers. For example, Al-Gasem (2019) examines the impact of the most popular social media platforms created by technology and used extensively by individuals on young people. Al-Gasem emphasizes that the use of social media in the United States of America develops creativity, knowledge sharing, interactive learning, tolerance, and social interaction skills in young people. Still, it creates problems such as anxiety, depression, violence, oppression, insomnia, etc. from time to time or constantly. Another research (Eum, Park & Yim, 2016) points out that the use of smartphones among young people is high enough to create addiction and that this can negatively affect their musculoskeletal systems and eye health because young people stay in the same position for a long time, and claims that this adverse situation can be eliminated with the Integrated Therapy Method, which includes music therapy.

Technology does not always have adverse effects on people. When used consciously, it has many positive effects on individuals, and society. Societies want to utilize technology in many areas in favor of people. One of these areas is education. Technology is integrated with other teaching and learning tools in educational institutions, offered to the service of students and continuously updated when necessary. Foreign languages have also been significantly impacted by technological advances. Learners, individually and in educational institutions, use different-looking specialized tools and equipment while acquiring the four basic skills of foreign language.

In the research entitled “on the opportunities and challenges of using mobile information technologies and applications in English language teaching in the classroom” Solihin (2021), emphasizes the inadequacy of Indonesian teachers' and students' knowledge and skills in using this type of technology and states that some teachers in particular resist using mobile technologies in the classroom on cultural and moral grounds. Using technological applications such as WhatsApp, Facebook, Twitter, etc, in foreign language teaching can lead to the dissemination of personal and private information. Moreover, students may use them for malicious purposes. In another article investigating the effectiveness of using the WhatsApp mobile messaging application in English language learning, it was concluded that secondary school students used WhatsApp effectively as a learning tool to improve their English language proficiency (Şahan, Çoban & Razı, 2016). Students stated that they learned new vocabulary through WhatsApp chat groups, and that their teachers conveyed the meanings of words and vocabulary in the units. Through this technology they shared videos and texts in English, and they improved their speaking and listening skills through audio recordings they created about a topic. During the COVID-19 pandemic, schools around the world were closed for an extended time. The use of technology in education have become more obvious. Schools started to provide online education. Virtual classrooms, WhatsApp, etc., became the most utilized technological applications. During the pandemic, it was observed
that WhatsApp increased English students' motivation to learn, facilitated the interaction process between teachers, and students, and reduced students' anxiety about the learning and education process (Al Abiky, 2021).

In addition to vocabulary teaching, speaking and listening activities, educational technologies were also utilized in other areas of foreign language teaching, such as reading. The research (Gheytasi, Azizifar & Gowhary, 2015) conducted to measure the effect of smartphones on the reading comprehension proficiency of Iranian EFL students emphasizes a significant difference between the experimental and control groups in favor of the learners.

Technology in foreign language teaching is used for children, adults and young learners. Undoubtedly, children need more motivation than adults and can quickly lose their concentration in long foreign language teaching processes. When used correctly and effectively, technology can create an accurate and amusing learning environment for children. In addition, it offers them unlimited pedagogical resources. In the school, children use technological tools in learning. Outside the classroom, however, they use technology for play and are not yet conscious of using it for individual learning at home (İlter, 2015).

Although there are many scientific studies in the literature from different perspectives, we find that the number of studies examining the relationship between technology addiction and the use of technology in foreign language teaching is insufficient. Instead, research in this direction focuses on the questions “How often do students use technology while learning English, what kind of technological tools do they use, and do they like using technology while learning English?”. In one of these studies (Ağaoğlu & Şad, 2020), the relationship between digital game addiction and English listening skills of university students was examined in which students' digital game addiction was at a moderate level, and a positive correlation was determined between digital game addiction and English listening skills.

The longer the students play, the more addicted they become to digital games, and the more their proficiency in listening skills in English improves. In another study (Alsulami, 2016), students reported that they usually watched TV and videos in English. However, they are less likely to listen to the radio and use technology in speaking.

Method
The research is a study consisting of quantitative and descriptive methods (Yıldırım & Şimşek, 2000; Giroux & Tremblay, 2002).

Participants
The participants are the students from the Department of Foreign Languages at Kazım Karabekir Faculty of Education in Turkey. They were 277 students, male and female, of English, French, and German language education. Statistics about the sample population are given in the table below.

Table 1. Percentages and Frequencies Regarding Gender

<table>
<thead>
<tr>
<th>Gender of participants</th>
<th>Students</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman</td>
<td></td>
<td>76,9</td>
<td>213</td>
</tr>
<tr>
<td>Man</td>
<td></td>
<td>23,1</td>
<td>64</td>
</tr>
<tr>
<td>Departments of foreign language</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language Teaching</td>
<td></td>
<td>70,8</td>
<td>196</td>
</tr>
<tr>
<td>French Language Teaching</td>
<td></td>
<td>13,3</td>
<td>37</td>
</tr>
<tr>
<td>German Language Teaching</td>
<td></td>
<td>15,9</td>
<td>44</td>
</tr>
</tbody>
</table>

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A total of 277 people, 213 women (76.9%) and 64 men (23.1%), attended the study. 196 of the participants (70.8%) are in English Language Education, 37 (13.3%) are in French Language Education, 44 (15.9%) in German Language Education students, 58 of the participants (20.9%) are in Prep class, 75 (27.1%) are freshman, 68 (24.5%) sophomores, 53 (19.1%) junior and 23 (8.4%) senior students.

Research Instruments
A survey consisting of 35 closed-ended questions was given to students from three departments of foreign language to examine the relationship between learners' level of technology addiction and the use of technology. The 5 Likert scale with 35 items was also used during the research. The questionnaire consisted of two sections. The first section includes 22 items related to technology addiction while the second one consists of 13 items based on using technology in teaching foreign language. The survey was distributed to students in the classroom, and they responded to all the questions.

Research Procedures
The data was collected by distributing to 277 students from the Department of Foreign Language at Faculty of Education in Turkey a questionnaire consisting of thirty five items. The questionnaire was formulated by research. The data was analyzed by adopting a descriptive method. Quantitative analysis is performed on the data.

Data Analysis
The quantitative data analysis was carried out using the SPSS program. The results were analyzed using descriptive statistics.

Findings
The findings obtained from the questionnaire are presented in the following tables.

Table 2. Average time students spend on the Internet

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one hour</td>
<td>3</td>
</tr>
<tr>
<td>Between 1-2 hours</td>
<td>6</td>
</tr>
<tr>
<td>Between 2-3 hours</td>
<td>68</td>
</tr>
<tr>
<td>Between 3-4 hours</td>
<td>132</td>
</tr>
<tr>
<td>More than 4 hours</td>
<td>68</td>
</tr>
</tbody>
</table>

As seen in Table two, 1.1% of the students spend less than one hour, 2.2% between one and two hours, 24.5% between two and three hours, 47.7% between three and four hours, and 24.5% more than four hours on the Internet daily. About half of the students spend four hours on the Internet, while about a quarter of them spend more than four hours a day on the Internet.
Table 3. *Students’ goals for using the Internet*

<table>
<thead>
<tr>
<th>Goal</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entertainment</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>To socialize</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>To follow daily events</td>
<td>18</td>
<td>6.5</td>
</tr>
<tr>
<td>To find information</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>For leisure</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>For shopping</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>All of the above</td>
<td>237</td>
<td>85.6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Most students state that they use the Internet for different goals as mentioned above.

Table 4. *Perceptions of students on using websites and the Internet*

<table>
<thead>
<tr>
<th>Student Attitudes</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The moment when I need to leave websites, I wish to stay “a little longer” and keep browsing.</td>
<td>277</td>
<td>3.4585</td>
<td>0.92229</td>
</tr>
<tr>
<td>I spend more time on websites than planned.</td>
<td>277</td>
<td>3.6498</td>
<td>0.89490</td>
</tr>
<tr>
<td>There are times when I am sleepless to surf websites.</td>
<td>277</td>
<td>2.9711</td>
<td>1.03869</td>
</tr>
<tr>
<td>I am online many times during the day.</td>
<td>277</td>
<td>4.1480</td>
<td>0.78697</td>
</tr>
<tr>
<td>When I wake up in the morning, I feel the need to be online.</td>
<td>277</td>
<td>3.6029</td>
<td>0.92532</td>
</tr>
<tr>
<td>I get disturbed when the internet goes down or slows down.</td>
<td>277</td>
<td>3.4874</td>
<td>0.98394</td>
</tr>
<tr>
<td>I can not think of a life without the Internet</td>
<td>277</td>
<td>3.8989</td>
<td>1.03064</td>
</tr>
</tbody>
</table>

Considering the students' perceptions of using Websites and the Internet, 96.8% of them state that they are online several times a day. While 2.9% of the students are rarely online during the day, 0.4% of them do not go online at all. In general, students spend more time on Websites during the day than they plan and feel the need to go online when they wake up in the morning. Likewise, 3/1 of them believe that a life without the Internet would never be possible. These results show that students' perceptions of using Web sites and the Internet are above the average.

Table 5. *Students’ perception of the use of social media (Facebook, Twitter, Instagram)*

<table>
<thead>
<tr>
<th>Student attitudes</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I'm not surfing on social media, I think about what I did the last time I was connected.</td>
<td>277</td>
<td>1.8375</td>
<td>0.85484</td>
</tr>
<tr>
<td>I spend more time on social media even if I have important work to do.</td>
<td>277</td>
<td>2.5199</td>
<td>0.99844</td>
</tr>
<tr>
<td>My efforts to reduce the time I spend on social media result in failure.</td>
<td>277</td>
<td>2.6065</td>
<td>0.95194</td>
</tr>
<tr>
<td>It bothers me to be distracted when I devote time to social media.</td>
<td>277</td>
<td>2.1480</td>
<td>1.03723</td>
</tr>
<tr>
<td>I feel restless when I have trouble connecting to social media.</td>
<td>277</td>
<td>2.9531</td>
<td>1.08078</td>
</tr>
<tr>
<td>I use social media to get rid of negative thoughts about my life.</td>
<td>277</td>
<td>3.4693</td>
<td>1.05808</td>
</tr>
</tbody>
</table>
As seen in Table Five, most students generally use social media to get rid of negative thoughts about their lives.

Table 6. Students’ perception of instant messaging

<table>
<thead>
<tr>
<th>Student attitudes</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I am out of instant messaging, I imagine what I will write later.</td>
<td>277</td>
<td>2.0108</td>
<td>.89881</td>
</tr>
<tr>
<td>I often check my messages even when I have important work to do.</td>
<td>277</td>
<td>3.1119</td>
<td>.96220</td>
</tr>
<tr>
<td>I get restless when I'm not using instant messaging apps.</td>
<td>277</td>
<td>3.1661</td>
<td>.97126</td>
</tr>
<tr>
<td>I spend a lot of time when I'm using instant messaging apps.</td>
<td>277</td>
<td>3.7184</td>
<td>.94416</td>
</tr>
<tr>
<td>I prefer communicating with my friends via instant messaging than meeting them face-to-face.</td>
<td>277</td>
<td>3.1913</td>
<td>.92246</td>
</tr>
<tr>
<td>I use instant messaging applications when I feel lonely.</td>
<td>277</td>
<td>3.6209</td>
<td>.94639</td>
</tr>
</tbody>
</table>

The analysis of the student’s perception of instant messaging is given in Table six. When it comes to instant messaging, one of the first applications that has widespread users is WhatsApp. Students primarily use instant messaging applications when they feel lonely in their social life. This situation reveals that instant messaging is for socializing and instant communication rather than a need. More than half of the students prefer technology-supported instant messaging to face-to-face contact with friends.

Table 7. Students’ perception of online playing game

<table>
<thead>
<tr>
<th>Student attitudes</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to increase the amount of time I spend playing online games.</td>
<td>277</td>
<td>1.4621</td>
<td>.71438</td>
</tr>
<tr>
<td>There are times when I sleep less to play online games</td>
<td>277</td>
<td>1.4260</td>
<td>.65312</td>
</tr>
<tr>
<td>I get irritated when I have trouble connecting to online games.</td>
<td>277</td>
<td>1.4946</td>
<td>.77843</td>
</tr>
</tbody>
</table>

Students’ perception of playing online games in a foreign language they learn is relatively insufficient.

The findings related to students' competence in using technology in foreign language learning are as follows.

Table 8. Students' daily use of technology while learning a foreign language

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never use technology</td>
<td>48.7</td>
</tr>
<tr>
<td>Less than one hour</td>
<td>32.9</td>
</tr>
<tr>
<td>Between 1-2 hours</td>
<td>11.9</td>
</tr>
<tr>
<td>Between 2-3 hours</td>
<td>4.0</td>
</tr>
<tr>
<td>More than 3 hours</td>
<td>2.5</td>
</tr>
</tbody>
</table>

While 48.7% of the students do not use technology at all while learning a foreign language, 32.9% of them use technology for less than one hour a day, 11.9% use technology for one to two hours a day, 4% for two to three hours and only 2.5% for more than three hours.

Table 9. Students’ perception of using technology in foreign language learning
Almost half of the participants say they have never used technology/the Internet to learn a foreign language. Most students don’t have the habit of listening to the radio and watching television, or following news or interview programs in a foreign language. One-third of the participants, i.e. 69.7%, effectively use dictionaries online while learning a foreign language. The findings reveal that upper grades use technology more extensively while learning a foreign language. It can be argued that a high level of learning awareness is seen among advanced students.

Table 10. Anova Results of the scale of using technology in learning foreign language according to grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Ss</th>
<th>Source of Variance</th>
<th>KT</th>
<th>Sd</th>
<th>KO</th>
<th>F</th>
<th>P</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep (1)</td>
<td>58</td>
<td>1,798</td>
<td>,394</td>
<td>Intergroup</td>
<td>19,818</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman (2)</td>
<td>75</td>
<td>1,967</td>
<td>,300</td>
<td>In-group</td>
<td>56,570</td>
<td>272</td>
<td>4,955</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore (3)</td>
<td>68</td>
<td>2,236</td>
<td>,479</td>
<td>Total</td>
<td>76,388</td>
<td>276</td>
<td>.208</td>
<td>2,126</td>
<td>.003</td>
<td>1-5; 5-4; 1-2</td>
</tr>
<tr>
<td>Junior (4)</td>
<td>53</td>
<td>2,291</td>
<td>,594</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior (5)</td>
<td>23</td>
<td>2,765</td>
<td>,572</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>277</td>
<td>2,126</td>
<td>,526</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table Ten, there is a significant difference in students' proficiency in using technology for learning foreign language (F=2.126; p < .03). The results of the Tukey test conducted to determine the differences between the grades in terms of students' levels of using technology in learning a foreign language suggest that senior (X=2,765) and junior (X=2,291) students' levels of using technology are higher than those of Prep class (X=1,798) and freshman (1,967) students.
Discussion

In this study, which examined the relationship between technology addiction and the use of technology in learning a foreign language, findings reveal that foreign language learners are addicted to technology. However, they do not address technology for learning processes. Undoubtedly, technology has a guiding quality that today's individuals encounter at every moment of their lives and, shapes their social lives, and facilitates their daily work. There is no more need to search for the best restaurant and hotel. No more need to send information about health problems to the doctor. No more thinking about how to get from one place to another. Moreover, there is no need to research anything. Bots have everything like travel, health, etc., set up for people. Furthermore, the bots also voice the searches. Each search is already anticipated. And the answers are ready when they are needed. Technology has become so fast, powerful, and pervasive that we cannot escape being watched, observed, recorded and controlled. The Internet of Things is connected to our cars, homes, gadgets, parks, cities, consumed goods, medical treatments, medicines, and machines. The Internet of Everything is networking our minds. Today, almost all technology and pharmaceutical companies have merged. The most dangerous diseases in human history, including cancer, diabetes, heart disease, and HIV, are being defeated by advanced bioengineering. These days, the old-fashioned use of pills to fight ailments or diseases is rare. Instead, we are increasingly using genetic editing and technology to monitor, predict, and prevent the onset of illness (2018, Leonhard). It is, therefore, perfectly natural for humans to depend on technology that facilitates human life. Currently, individuals are introduced to technology at an early age. Approximately half of children aged 3-6 in Australia, 78% of children aged 0-6 in Norway, 70% of children aged 3-4 in Sweden, 70% of preschoolers in Belgium, and one-third of children aged 3-4 in the UK use the Internet. (Cited from Meral & Şahin, 2019).

The results of another study conducted with university students on technology addiction overlap with the results of the current study. In the survey (Akkaş, 2019), which examined the technology addiction levels of Erzincan Binali Yıldırım University students, the participants had a high rate of having their phones with them before going to sleep, they spent a lot of time with their cell phones. They used the phone mainly for unintended purposes, and 69.31% of the participants felt tense and restless when they did not have Internet access or were blocked. These behaviors fit Young's diagnostic criteria for Internet and technology addiction. The user fails in attempts to control, reduce, or stop using the Internet and spends more time on the Internet than planned. On the other hand, the user uses the Internet to escape from problems or to distract from negative emotions. In technology addiction, as in alcohol and drug addiction, it is always questioned why some people exhibit such behaviors while others do not. While genetic and physiological reasons usually underlie the psychology of drug addiction, the overuse of technology, which is considered a more innocent addiction or is not even seen as an addiction, is regarded as a habit.

While technology is widely used in all areas of social life, it can be characterized as a significant deficiency in that it is not sufficiently utilized in learning and teaching. The use of technology in foreign languages can improve learners’ language skills in essentially unnatural environments. In this respect, today's language learners are more advantaged than those twenty years ago. Thanks to technology, they can easily access countless audio and visual materials at any time and place. They can practice the language with individuals in the remotest corners of the world. Finally, students can easily learn a foreign language in the 21st-century world. In the present study, the problem related to the participants' not using technology while learning a foreign
language can be overcome by encouraging and raising their awareness in this direction. For example, YouTube, which allows individuals to access any video and, therefore, the information they want without needing technical knowledge in online environments, is used extensively by individuals of all ages, especially children and young people. Users use this digital platform for various purposes, such as socializing, digital communication, and entertainment. In Turkey, 96% of the population watches online videos and spends an average of 7 hours daily on the Internet (Aygül & Apak, 2019). However, as the research results reveal, foreign language learners do not show the same interest in using Youtube and similar platforms for learning. At this point, it seems inevitable to question the concepts of learning and teaching at school. Learners' interest in learning may differ. Because foreign languages are learned at school rather than in social environments. Learning can lose its importance for learners when it comes to school. In fact, learning is undeniably identified with school in our subconscious. But this institution of learning, which has a history of more than a century, has never succeeded in fulfilling its primary purpose of making people love teaching. The rigors of intense study take away the school's raison d'être, which is to give the pleasure of learning. Grades, exams, assignments, and assessments keep young minds busy (Giordan, 1998). The responsibility of foreign language teachers plays a crucial role. Among other competencies, raising students' awareness in the learning process, motivating them, and teaching them how to use digital technology are among their most important tasks. The best teachers are not just educators. They are mentors and guides who build their students' confidence, help them find their direction, and empower them by believing in them (Robinson & Aronica, 2015). Therefore, this study may increase student's awareness of using technology in learning a foreign language.

Conclusion

The current study aims to determine the level of technology dependence of university foreign language learners and their competence in using technology in foreign language learning. The findings reveal that students' technology addiction is a moderate level, and their competence in using technology in foreign language learning is at a moderate level. In other words, students use technology more in social life than in the learning process. They go online many times a day, cannot imagine life without the Internet, and feel the need to go online when they wake up. They spend more time online than they plan. Sometimes, they even become sleepless. However, their use of technology to learn, and develop the four basic language skills is inadequate while learning a foreign language. They do not support their listening, speaking, writing and reading skills with technology. They only use online dictionaries more intensively when learning new words. In addition, research results show that in terms of grade differences, the awareness of using technology in learning is relatively higher in upper grades than in lower rates.

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References


The Acceptance of TikTok as a Tool in English Language Learning among University Students

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Abstract
TikTok is considered a potential tool for enhancing the development of students’ language skills and proficiency. However, research on the extent of students’ acceptance of using it as a language learning tool is limited. Therefore, this study aimed to examine the level of acceptance of TikTok in English language learning and the factors contributing to the actual use of TikTok among undergraduate students in Malaysia. This study employed quantitative research methodology by disseminating a 32-item questionnaire to 200 undergraduate students at a public Malaysian university via a Google Form link. Sections A, B, C, D, E, and F of the questionnaire sought responses on the demographic profile, perceived usefulness, ease of use, attitudes, behavioural intention, and actual use of TikTok in English language acquisition, respectively. The findings revealed that the average scores for the individual items and the overall scores for each component being studied were within the range of 3 to 4.1 on a 5-point Likert scale. This result indicated that the student’s level of acceptance was above average. Students' behavioural intentions were also found to be the most significant factor in determining whether or not TikTok was used for English language instruction. Students acknowledged the use of TikTok in English language learning, suggesting that it could be used as a pedagogical instrument in English language classrooms. Consequently, the findings highlight TikTok's potential as a language learning tool in English language courses, as it strengthens educational platforms and enhances instruction by giving students more ways to learn languages.

Keywords: acceptance, English language learning, Technology Acceptance Model, TikTok

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Introduction

The education sector, particularly Higher Education (HE), has undergone substantial transformations in recent years, particularly when the Covid-19 pandemic swept the world. As a result, there has been a rapid shift from physical classes to Online Distance Learning (ODL) or hybrid classes, requiring both educators and students to quickly adjust to more digital approaches based on the viability of social media and other digital educational resources. According to Lacka, Wong, and Haddoud (2021), digital technologies such as Virtual Learning Environment (VLE) and Social Media (SM) are widely used in HE. However, the direct link between how these tools support students to achieve HE goals is still understudied. With the rise in popularity of social media platforms in HE, TikTok has entered the market to leverage digital educational tools to enhance the teaching and learning experience. Originally known as Douyin in China, TikTok was introduced as the international twin in 2017 and has become increasingly popular, with over two billion downloads in April 2020 (Kaye et al., 2020; Xiuwen & Abu Bakar, 2021). Since its debut in the education landscape, TikTok has become one of the most significant learning platforms in the world over the last few years with the hashtag #LearnOnTikTok, which has garnered more than seven billion views (Faktor, 2021; Iqbal, 2020).

Given its growing popularity as an educational platform and its benefits for HE, more researchers have started to invest interest and contribute insights on the novelty of TikTok’s acceptance in education, its pedagogical implementation in enhancing English language teaching and learning, and its use to help develop students’ language skills and proficiency (Lindade, 2020; Literat, 2021; Muftah, 2022; Pratiwi et al., 2021; Zaitun et al., 2021). However, since TikTok is a social media application, there is a timely need to address its usefulness as an educational tool from the perspective of technology acceptance. The Technology Acceptance Model (TAM) by Davis (1989) is one of the most significant and leading models to measure the acceptance of various digital technologies (Sprenger & Schwaninger, 2021). It has been applied in multiple disciplines, contexts, and geographical locations, offering a critical theoretical tool for forecasting user behaviour (Marikyan & Papagiannidis, 2023). Hence, without an understanding of users' behaviour and attitude based on technology acceptance, any implementation of technology may not be fruitful because according to Turner et al. (2010), technologies with low user acceptance are used less often.

Therefore, based on the research gap presented, this study aimed to investigate the level of acceptance of TikTok as a tool for English language learning. The findings obtained from this study have the potential to provide insights into the usefulness of TikTok in the technology-dominated Education 5.0 landscape, particularly in HE. Moreover, it may help boost the awareness and acceptance of the pedagogical possibilities of TikTok for English language learning among educators, and university students. TikTok has emerged as a significant platform for young individuals to exchange and disseminate knowledge, thereby assuming a progressively prominent role in language instruction and dissemination (Si Xi, 2020). Furthermore, this study was to shed light on the potential of TikTok in the context of English language instruction and
contribute further research perspectives across related disciplines. Hence, this study was designed 1) to identify the level of acceptance of TikTok as a tool in English language learning and 2) to determine the aspect that contributes the most to the actual use of TikTok among undergraduate university students. Consequently, the purpose of this study was to address the following research questions:

1. What is the level of acceptance of TikTok as a tool in English language learning among undergraduate university students?
2. Which aspect contributes the most to the actual use of TikTok?

**Literature Review**

**Technology Acceptance Model**

The Technology Acceptance Model (TAM) was first established by Davis (1989), and it was founded on the theory of Reasoned Action (TRA), which was developed by Fishbein and Ajzen, (1975), in the field of psychological research. According to the TRA social psychology model, a person's behaviour is driven by their intention, which also determines the attitude towards their behaviour and their subjective norm (Mafarhanatul Akmal, Bazrina, Noor Sharienia, & Ilham Alia, 2022). According to the TAM, which is an adaptation of the TRA, the primary determinants of an individual's inclination to adopt new technology are their perceived usefulness and simplicity of use (Charness & Boot, 2016; Mafarhanatul Akmal et al., 2022). Given that these are factors of user attitude towards using the system, TAM suggests that users' true behavioural intentions may be influenced by their prior intentions and attitudes about the activity, which in turn impacts actual system use (Davis, 1989). Figure 1, as depicted below, presents the five variables of the Technology Acceptance Model (TAM) proposed by Davis in 1989.

![Technology Acceptance Model (Davis, 1989)](image)
TAM consists of five main variables, as illustrated in the figure above. Davis (1989) defined the first variable, which is perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance”, while perceived ease of use refers to “the degree to which a person believes that using a particular system would be free of effort," (Davis, 1989, p. 320). Although perceived ease of use is also expected to influence perceived usefulness and attitude toward technology use, these are seen as distinct variables impacting the user's attitude toward utilising the technology (Maslin, 2007). As a result, a person's attitude toward adopting a technology affects their behavioural intention to use it. Next, behavioural intention is defined as “the degree to which a person has formulated conscious plans to perform or not perform some specified future behaviour” (Warshaw & Davis 1985, p. 214). Ramayah and Ignatius (2005) acknowledged that behavioural intention has been successful in predicting actual use. Lastly, according to previous research in social media technology, the behavioural intention to engage in direct and significant usage will affect the existing system (Al-Maatouk et al., 2020; Denker et al., 2018).

TAM is recognized as one of the most successful models in the field of technology acceptance and has become popular among researchers. A systematic review of the literature on e-learning research from 2009 to 2018 reveals that TAM is one of the theories that researchers utilize the most (Mustafa & Garcia, 2021; Valverde-Berrocoso et al., 2020). Moreover, Granić and Marangunić (2019), in their systematic literature review of TAM in the education context revealed that “TAM along with its many different versions called TAM++, is a leading scientific paradigm and credible model for facilitating assessment of diverse technological deployments in the educational context” (p. 2572). Therefore, in this study, TAM is employed due to its reliability in facilitating the evaluation of various learning technologies, particularly the use of social media in the digital or E-Learning environment. The use of TAM is because "for the E-Learning process to be successful and efficient, educators should identify the factors affecting users’ intentions to adopt the online platform," (Chen, 2022, p. 1141). Without an understanding of users’ intentions and behaviour, the incorporation of technology may become a hindrance to the process. “In fact, a great technology and application might be designed and developed but if people do not get involved and do not use it, the project is failed, thus, user acceptance is an undeniable key to any further implementation and development of any technology and application,” (Taherdoost, 2019, p. 2).

**Social Media and Language Learning**

Social media is continuously affecting how people live in various ways. Today's social media platforms have an impact on all facets of life, including communication, information delivery, knowledge exchange, commerce, and education (Bhatti, 2018; Bhatti et al., 2019; Muftah, 2020). Moreover, the adoption of new technology, such as social media has significantly influenced “the roadmap for language teaching and learning which has experienced huge changes in the era of deployment of new technologies around the globe” (Nurul Afifah et al., 2019 as cited in Nur Ilianis et al., 2021, p. 1). While social networking sites for language learning are a subset of social...
media services, they are primarily created for particular functions and are devoted to language learning (Muftah, 2020). According to Yadav (2021), the growth of high-tech electronic devices, such as computers, smartphones, tablets, and laptops, has made it convenient and flexible for EFL and ESL students to use various social media tools to learn English. Al-Maatouk et al. (2020) in their study of Task-Technology Fit (TTF) and Technology Acceptance Model (TAM) Application to Structure and Evaluate the Adoption of Social Media for Academic Purposes hypothesised that “TTF applied to social media for learning will affect technology, task, and social characteristics that in turn improve students’ satisfaction and students’ academic performance” (p. 78427). Their findings supported the hypothesis whereby a significant relationship was discovered and established between TTF, TAM, and social media for educational purposes, all of which increased the students’ performance and happiness. Therefore, it is evident that the utilisation of social media has been integral in education, particularly in language learning.

**TikTok As an Educational Tool for Language Learning**

Despite TikTok’s immense popularity as a beneficial educational tool, the novelty of TikTok in language teaching and learning is still relatively understudied, specifically in Malaysia. Compared to other rivalled social media platforms especially Facebook, YouTube, Twitter and WhatsApp, the research on the utilisation of these platforms and their impacts on English language learning among adults and university students have gained more attention since the Industrial Revolution 4.0 movement and the Covid-19 pandemic (Desta et al., 2021; Muftah, 2022; Namaziandost & Nasri, 2019; Xiuwen & Abu Bakar, 2021; Yadav, 2021). However, the rapidly growing TikTok has entered the education system, including HE due to its extensive global outreach that supports learning. Yélamos-Guerra et al., (2022) verified that the use of TikTok in HE is regarded as an “innovative approach to learning being highly integrated with new technologies that fosters comprehension and active learning, thus enhancing comprehension in a stimulating and motivating way” (p. 83). Hence, HE students demonstrated a highly encouraging attitude towards the effectiveness of TikTok as an educational tool. Moreover, according to Wu (2020, as cited in Xiuwen & Abu Bakar, 2021) “youths aged 30 and below, i.e., generation Z, dominate the major users of TikTok and they spend an average of 52 minutes every day on TikTok” (p. 1441). Therefore, from the average time spent and its massive popularity among the youths in HE, TikTok may be a good platform for innovative educational and pedagogical opportunities.

As the most downloaded application in July 2020, TikTok has become one of the most famous social networking sites that targets the youths to share their 60-second to three-minute-long videos (Xiuwen & Abu Bakar, 2021). Putri (2021) claimed that TikTok's functionality and user-friendly technical advantages in capturing and presenting creativity, knowledge, and precious moments straight from the phone have become a niche in this competitive market, and thus could be useful as a tool for language learning. Furthermore, TikTok has established itself
as a micro-video, distinguishing itself from YouTube, which features long videos. According to Al-Marooif et al. (2021), TikTok has appeared as a new technology that stands in contrast to lengthy videos and offers the most important features “which are the time limitation and the availability of up-to-date information quickly” (p. 198). Therefore, TikTok appears to be a more user-friendly medium for reflecting users’ schemata and capturing new information compared to YouTube, which lacks several of TikTok's implemented features. Not only that, Al-Khasawneh et al., (2022) expressed that limited study has been performed to identify why people prefer to use TikTok applications and their findings demonstrated that the most significant positive contributing factor towards users’ intention to use TikTok is the user-generated content based on the Perceived Usefulness and Perceived Ease of Use. Hence, given all the advantages, TikTok could act as an essential tool in language learning.

Although its popularity is proven amongst its global users, it still needs more attention from the stakeholders of the education industry to be aware of its usefulness and potential as an educational tool, specifically in Malaysia. Albeit the novelty, it has piqued the interest of some local research about its awareness, acceptance, and usefulness as an education tool (Aida Nabilah et al., 2021; Nur Ilianis et al., 2021). Notably, limited studies have also investigated TikTok’s involvement in language learning in schools in Malaysia (Diana et al., 2020; Noor Syazana et al., 2019) and a previous study done by Xiwen and Abu Bakar (2021) only focused on incorporating TikTok into teaching and learning to improve the international Chinese undergraduates’ English communicative competence and motivation to communicate in English. On the other hand, Tan et al., (2022) focused on scoping review framework to find the potential of TikTok’s key features as a pedagogical strategy for ESL classroom based on their review of 60 recent studies dated from 2018 to 2021. Since the research on the use of TikTok for language learning purposes is still under exploration (Aida Nabilah et al., 2021; Pratiwi et al., 2021), particularly quantitatively as well as from the perspective of technology acceptance, this research intends to identify the level of acceptance of TikTok as a tool in English language learning and identify the aspect that contributes the most to the actual use of TikTok among the HE students in Malaysia.

Methods
The quantitative research design using a survey approach was employed in this study given that it is necessary to collect, analyse, and interpret quantifiable data to investigate TikTok as an effective language learning tool. Queirós et al., (2017) stated that as quantitative research design emphasises objectivity and is particularly applicable when it is possible to collect quantifiable measures of variables and inferences from representative samples of a population, the data are collected objectively and systematically. In addition, many social science researchers used the survey design to collect data quickly. It is also not expensive, familiar, and can be accessed by a wider group of people (Gürbüz, 2017).

Participants
This study included 200 undergraduate students from UiTM Shah Alam and UiTM Selangor (Puncak Alam Campus) who were enrolled in three different disciplines of study: Science and
Technology, Business and Administration, and Social Sciences and Humanities. The study employed a random sampling technique as this technique gives an equal chance for individuals in the population to be selected (Iliyasu & Etikan, 2021). According to Israel (2013), for any given population over 25,000, the sample size should be around 204 with 95% confidence and ±7% margin error. Therefore, this study has gathered 200 students as the sample size. Participation was voluntary, and their responses were kept confidential following the UniversitiTeknologi MARA Research Ethics Committee (REC/05/2022, ST/MR/100).

Research Instruments
The study utilised an online questionnaire that included five demographic questions about gender, fields of study, time spent on TikTok, MUET result, and place of residence as well as 27 questions regarding the acceptance of TikTok as a tool for English language learning. The five-point Likert scale survey, extending from 'Strongly Disagree' to 'Strongly Agree,' was modified from the Technology Acceptance Model (TAM) proposed by Davis (1989). The adoption of TikTok as a tool in English language learning was examined using TAM, taking into account its perceived usefulness, perceived ease of use, users' attitude, behavioural intention, and users' actual use of TikTok as a tool in English language learning.

Research Procedures
The questionnaire was created in Google Forms and distributed via a shared link to respondents. Then, the data from the Google Form was analysed with the Statistical Package for Social Science (SPSS) Version 28 statistical analysis software, which generated descriptive and inferential statistics using means and stepwise multiple regression respectively. The Cronbach Alpha value for all questionnaire items was 0.979. Taber (2017) states that if the value of the internal consistency of the items is greater than 0.90, then the items have a very high degree of internal consistency.

Data Analysis
The data were analysed using both descriptive and inferential statistics. Means were used to describe the undergraduate students’ level of acceptance of TikTok as a tool in English language learning in terms of its usefulness, ease of use, students’ attitudes, students’ behavioural intentions, and actual use. Then, a stepwise regression was employed to analyse the most contributing aspect to the actual use of TikTok. The analyses were done by using SPSS version 28 and the level of significance was set at 0.05.

Results
The findings of this research will be presented and discussed according to the research objectives of the study.

Research Objective One: To Identify the Level of Acceptance of TikTok as A Tool in English Language Learning Among Undergraduate University Students
Table 1. Usefulness of TikTok in English Language Learning

<table>
<thead>
<tr>
<th>Item No</th>
<th>Usefulness of TikTok</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3</td>
<td>Using TikTok would increase my knowledge of the English language.</td>
<td>3.92</td>
</tr>
<tr>
<td>B4</td>
<td>Using TikTok would enhance my ability to use the English language.</td>
<td>3.90</td>
</tr>
<tr>
<td>B5</td>
<td>I would find TikTok useful in English language learning.</td>
<td>3.87</td>
</tr>
<tr>
<td>B1</td>
<td>Using TikTok would enable me to learn the English language quickly.</td>
<td>3.79</td>
</tr>
<tr>
<td>B2</td>
<td>Using TikTok would improve my English language skills.</td>
<td>3.78</td>
</tr>
<tr>
<td></td>
<td>Overall Mean</td>
<td>3.85</td>
</tr>
</tbody>
</table>

Table One shows that item B3, “Using TikTok would increase my knowledge about English language” had the highest mean at 3.92 and the second highest mean was item B4 “Using TikTok would enhance my ability to use English language” at 3.90. Next was item B5, “I would find TikTok useful in English language learning” which had a mean of 3.87 and was followed by item B1, “Using TikTok would enable me to learn English language quickly” with a mean of 3.79. Item B2, “Using TikTok would improve my English language skills” had the lowest mean of 3.78.

Table 2. Ease of using TikTok in English Language Learning

<table>
<thead>
<tr>
<th>Item No</th>
<th>Ease of Using TikTok</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>I would find English language content on TikTok easy to follow and focus on.</td>
<td>4.06</td>
</tr>
<tr>
<td>C4</td>
<td>I would find TikTok to be flexible in English language learning anytime and anywhere.</td>
<td>4.02</td>
</tr>
<tr>
<td>C2</td>
<td>I would find it easy to access TikTok which has English language learning content.</td>
<td>4.01</td>
</tr>
<tr>
<td>C6</td>
<td>I would find TikTok easy to access to learn the English language.</td>
<td>3.97</td>
</tr>
<tr>
<td>C3</td>
<td>My English language learning via TikTok would be clear and understandable.</td>
<td>3.82</td>
</tr>
<tr>
<td>C5</td>
<td>It would be easy for me to become skilful at using TikTok in English language learning.</td>
<td>3.82</td>
</tr>
<tr>
<td></td>
<td>Overall Mean</td>
<td>3.95</td>
</tr>
</tbody>
</table>

Table Two presents that the highest mean was item C1, “I would find English language contents on TikTok easy to follow and focus on” at 4.06. Item C4 “I would find TikTok to be flexible in English language learning anytime and anywhere” had a mean of 4.02 and was closely followed by item C2, “I would find it easy to access TikTok that has English language learning contents” which had a mean of 3.08. Next was item C6, “I would find TikTok easy to access to learn the English language” at 3.97. Meanwhile, items C3 and C5, which represented “My English language learning via TikTok would be clear and understandable” and “It would be easy for me to become skilful at using TikTok in English language learning” respectively, shared the lowest mean of 3.82.
Table 3. Attitudes towards TikTok in Language Learning

<table>
<thead>
<tr>
<th>Item No</th>
<th>Attitudes towards TikTok</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>D4</td>
<td>Learning English via TikTok is enjoyable.</td>
<td>4.01</td>
</tr>
<tr>
<td>D1</td>
<td>Learning English via TikTok is a good idea.</td>
<td>3.82</td>
</tr>
<tr>
<td>D5</td>
<td>I like using TikTok to learn the English language.</td>
<td>3.81</td>
</tr>
<tr>
<td>D3</td>
<td>I am enthusiastic about using TikTok to continue improving my English skills.</td>
<td>3.73</td>
</tr>
<tr>
<td>D2</td>
<td>Learning English via TikTok is a wise idea.</td>
<td>3.71</td>
</tr>
<tr>
<td></td>
<td>Overall Mean</td>
<td>3.81</td>
</tr>
</tbody>
</table>

Table Three indicates the mean for item D4, “Learning English via TikTok is enjoyable” was the highest at 4.01. Item D1, “Learning English via TikTok is a good idea” came second at 3.82. Item D5, “I like using TikTok to learn the English language” was next with a mean of 3.81 and was followed by item D3, “I am enthusiastic about using TikTok to continue improving my English skills” at 3.73. Item D2, “Learning English via TikTok is a wise idea” had the lowest mean of 3.71.

Table 4. Behavioural Intention in Using TikTok as A Tool in English Language Learning

<table>
<thead>
<tr>
<th>Item No</th>
<th>Behavioural Intention</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>E4</td>
<td>I intend to recommend TikTok to my friends to learn English.</td>
<td>3.53</td>
</tr>
<tr>
<td>E3</td>
<td>I intend to use TikTok as one of my tools to learn English.</td>
<td>3.51</td>
</tr>
<tr>
<td>E1</td>
<td>I intend to use TikTok frequently to learn English.</td>
<td>3.32</td>
</tr>
<tr>
<td>E2</td>
<td>I intend to spend more time on TikTok to learn English.</td>
<td>3.28</td>
</tr>
<tr>
<td>E5</td>
<td>I intend to make TikTok my number one choice for learning English.</td>
<td>3.20</td>
</tr>
<tr>
<td></td>
<td>Overall Mean</td>
<td>3.37</td>
</tr>
</tbody>
</table>

As shown in Table Four, it was discovered that item E4, “I intend to recommend TikTok to my friends to learn English” had the highest mean and was followed by item E3, “I intend to use TikTok as one of my tools to learn English” with a mean of 3.51. Then, the mean for item E1, “I intend to use TikTok frequently to learn English” came next at 3.32. Item E2, “I intend to spend more time on TikTok to learn English” had a mean of 3.28 and the lowest mean was for item E5, “I intend to make TikTok as my number one choice of learning English” at 3.20.

Table 5. Actual use of TikTok as A tool in English Language Learning

<table>
<thead>
<tr>
<th>Item No</th>
<th>Actual Use</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3</td>
<td>I use TikTok as one of my tools to learn English.</td>
<td>3.39</td>
</tr>
<tr>
<td>F4</td>
<td>I recommend TikTok to my friends to learn English.</td>
<td>3.36</td>
</tr>
<tr>
<td>F1</td>
<td>I use TikTok frequently to learn English.</td>
<td>3.21</td>
</tr>
<tr>
<td>F5</td>
<td>TikTok is my number one choice for learning English.</td>
<td>3.11</td>
</tr>
<tr>
<td>F2</td>
<td>I spend more time on TikTok to learn English.</td>
<td>3.10</td>
</tr>
<tr>
<td></td>
<td>Overall Mean</td>
<td>3.23</td>
</tr>
</tbody>
</table>
In Table Five above, item F3, “I use TikTok as one of my tools to learn English” was discovered to have the highest mean. Item F4 came in second, “I recommend TikTok to my friends to learn English” with a mean of 3.36. Then, it was followed by item F1, “I use TikTok frequently to learn English” at 3.21. The second lowest mean was for item F5, “TikTok is my number one choice of learning English” at 3.11, and item F2, “I spend more time on TikTok to learn English” had the lowest mean which was 3.10.

**Research Objective 2: To Determine the Aspect That Contributes to The Actual Use Of TikTok The Most**

Table 6. Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.904a</td>
<td>.818</td>
<td>.817</td>
<td>.43191</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Behavioural Intention

A stepwise multiple regression was conducted to investigate the most contributing factor to predict the actual use of TikTok as a tool in learning the English language. Table Six indicates that the multiple correlation coefficient was .904, indicating approximately 81.8% of the variance of actual use could be accounted for by behavioural intention. At step 1 of the analysis, behavioural intention entered into the regression equation and was significantly related to the actual use of TikTok, F (1,198) = 887.149, p <0.001 (see Table Seven).

Table 7. ANOVAa

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regressio</td>
<td>165.498</td>
<td>1</td>
<td>165.498</td>
<td>887.149</td>
<td>&lt;.001b</td>
</tr>
<tr>
<td>Residual</td>
<td>36.937</td>
<td>198</td>
<td>.187</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>202.435</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Actual Use

b. Predictors: (Constant), Behavioural Intention

Usefulness (t = .640, p > 0.05), ease of use (t=-.722, p>0.05), and attitudes (t=.217, p>0.05) did not enter into the equation at step 2 of the analysis as shown in Table Eight.

Table 8. Excluded variablesa

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Usefulness</td>
<td>.027b</td>
<td>.640</td>
<td>.523</td>
<td>.046</td>
</tr>
</tbody>
</table>
Table 9. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.073</td>
<td>.110</td>
<td>.662</td>
<td>.509</td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td>.938</td>
<td>.031</td>
<td>.904</td>
<td>29.785</td>
</tr>
</tbody>
</table>

The regression model for predicting the actual use of TikTok using the coefficients in was:

Predicted Actual Use = 0.073 + 0.938 (Behavioural Intention)

Therefore, it can be concluded that behavioural intention contributes to the actual use the most as the model shows that the regression coefficient related to behavioural intention is 0.938; a unit increase in behavioural intention is associated with a 0.938 unit increase in the actual use in the usage of TikTok as an aid for English learning.

Discussion

This study investigated the level of acceptance of TikTok as a tool in English language learning among undergraduate university students, and the aspect that contributes the most to the actual use of TikTok. The findings revealed that students' acceptance of TikTok as a language learning tool was higher than usual. Based on the findings, the means for the individual items and the overall means of each aspect under investigation were between 3 to 4.1 out of a 5-point Likert scale. The highest mean was reported for Ease of Using TikTok (Perceived Ease of Use) at 3.95 and Usefulness of TikTok (Perceived Usefulness) at 3.85 among the key factors that determine the acceptance of TikTok as a tool for English language learning. The results of this study are consistent with those of Al-Khasawneh et al. (2022), who found that Perceived Usefulness and Perceived Ease of Use both have a substantial favourable influence on users' intentions to use TikTok. It has been demonstrated in this study that students’ acceptance of TikTok is mostly determined by these aspects. Moreover, the findings of this study also agree with those of Al-Maroof et al. (2021) whereby the role of these two aspects to facilitate the acceptance of video platforms (Youtube and TikTok) are the immediate predictors of behavioural intention because
when technology is categorised as effortless and beneficial, it signifies a higher level of acceptance (p. 207). Evidently, this also illustrates the direct correlation between perceived ease of use and perceived usefulness in terms of students’ behavioural intention to use TikTok for language learning.

Next, this study also demonstrated behavioural intention as the most influential factor in the actual use of TikTok for English language learning. The system utilisation of social media technology will depend on the behavioural intention to use it directly and significantly (Al-Maatouk et al., 2020; Denker et al., 2018). As was prior stated, the findings of this study corroborated the findings by Al-Maatouk et al. (2020) that associated factors related to behavioural intention to use higher education-based social media were influenced by other linked factors, with a Cronbach’s reliability coefficient of 0.931. Furthermore, Mafarhanatul Akmal et al. (2022) found that Perceived Usefulness is one of the most significant factors in raising the desire to use technology in language learning. This variable leads to the intention to use the new technology, which was the focus of their study. Therefore, this has demonstrated that Behavioural Intention positively affected the acceptance of using a social media platform, such as TikTok.

All in all, the findings from this study indicated that the students’ level of acceptance was above average and proved that the majority of the students acknowledged that given the different technology acceptance criteria, TikTok could be considered a useful tool for English language learning. The finding agrees with Yélamos-Guerra et al. (2022) that HE students regarded the use of TikTok as an innovative approach that stimulates and motivates active learning while supporting and enhancing understanding. The finding also ties well with Nur Ilianis et al. (2021) whereby the majority of respondents preferred TikTok as a method for learning English due to its novelty and interesting features. Aida Nabilah et al. (2021) found university students accepted TikTok as a tool for education development when it was used as a social media platform, a window for online learning, and a way to improve communication skills and technology skills. In line with their findings, this study discovered a positive correlation between university students’ use of TikTok as a language-learning tool. Therefore, the evidence from this study generally points to favourable feedback from the students.

**Conclusion**

The findings of this study demonstrated that the perceived usefulness and ease of use of TikTok have a substantial positive impact on the intention to use TikTok for language learning. This, in turn, influences students’ behavioural intentions to use TikTok in language learning and affects their acceptance of utilising the platform. Due to TikTok’s great popularity in education as well as its ability to captivate students' interest through its functionality and user-friendly interface, TikTok empowers education platforms and improves teaching and learning by providing students with different means to learn languages. It is therefore suggested that TikTok could be utilised as a prospective language learning tool in English language classrooms. However, as this study explores language learning in general, it is recommended that more studies investigate the level
of acceptance of using TikTok for specific language skills, such as speaking, listening, reading, and writing.

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**Declaration Of Conflicting Interests**
The authors declare that there is no conflict of interest.

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