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Exploring the Impact of Email-Based Vocabulary Instruction on Saudi Adult EFL Students' Technology-Integrated Learning

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Abstract
This research investigates the perspectives and experiences of Saudi EFL students as a Foreign Language students between the ages of 20 and 24 regarding using email as a technologically enhanced approach to studying vocabulary. The research's aim is to investigate the opinions of students regarding using email as a technology-based method of instruction to study vocabulary. The significance of the study lies in its potential to inform curriculum development and instructional strategies in English programs, especially increasing digital integration in education. The research question guiding this research is: What are the experiences and attitudes of Saudi adult EFL students regarding using email as a technology-enhanced method of instruction to study vocabulary? During five weeks, three groups of students from Albaha University, were divided into three groups and taught using three instructional approaches. Likert scales and closed-ended and open-ended questions, the survey gauged students' perceptions of the benefits and drawbacks of the teaching methods. The findings revealed that the participants held favorable views regarding using email to learn vocabulary. They recognized advantages which included increased motivation, the ability to learn independently, and the ease of storing and accessing materials. Conversely, some students experienced technical obstacles and reported a possible adverse effect on their handwriting ability. This study reveals the impact of the digital divide, which has been further exacerbated due to the COVID-19 pandemic, on learning. The study's discoveries will aid in developing curricula and instructional English major programs, improving the overall quality of language learning environments.

Keywords: Attitudes and experiences, email-based vocabulary, Saudi adult EFL students, Saudi Ara bia, technology-enhanced instruction, vocabulary learning

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Introduction

The significance of vocabulary acquisition in a second language for achieving communication competence and mastery of the language is universally recognized (Schmitt, 2008). Additionally, Nation (2001) stated that vocabulary is a robust indicator of an individual's reading comprehension abilities. However, Webb and Chang (2012) posited that although the growth of student lexical breadth, or the quantity of words in their lexicon, is gradual, educators frequently allocate *insufficient class time* to vocabulary instruction.

An advantage of analyzing how technology promotes introspection regarding input. Due to the COVID-19 pandemic-induced increase in working and learning from home in 2020 and 2021 (Albaqami & Alzahrani, 2022), the application of technology in the field of education has become even more pertinent for learning and, concomitantly, crucial for investigators to research. Communication via email, as one form of technology, may enhance language instruction and learning. Moreover, regarding email, according to Nazari and Niknejad (2015), this technology permits learners to make changes and self-correct, enhancing accuracy. Additionally, according to Ware and Warschauer (2006), technology provides learners with an everlasting record of their work and feedback, which they are free to review and revise whenever they desire. Additionally, Blake (2000) notes that technology facilitates learner-centerd and individualized instruction that caters to the various requirements, preferences, and learning styles of learners. Technology can thus boost the motivation and growth in the language of learners.

Communication via email enables learners to independently review, modify, and analyse their work and feedback (Ware & Warschauer, 2006; Nazari & Niknejad, 2015). Additionally, technology supports the various needs, preferences, and learning styles of students (Blake, 2000). Therefore, through the enhancement of motivation, and language development, technology empowers students to employ the target language briefly and precisely.

Technology plays a significant role in education, supporting the various needs, preferences, and learning styles of students (Blake, 2000). It enhances motivation and language development, empowering students to employ the target language briefly and precisely. Further, there is evidence that technology may promote the growth of precise output and enhance pre-existing vocabulary proficiency (Avci & Adiguzel, 2017; Allagui, 2014). Technology (including but not limited to online conferencing, blogs, and emails) can boost vocabulary by eliciting responses in a less formal manner than in traditional, technology-based classroom instruction. Put simply, there could be merit in implementing technological tools within the classroom environment to motivate students to submit electronic responses to assignments assigned by the instructor through email (specific to this study) and to return those responses via email. Among the various technological tools, email stands out for its unique benefits in language learning. Communication via email enables learners to independently review, modify, and analyse their work and feedback (Ware & Warschauer, 2006; Nazari & Niknejad, 2015). Email, along with other tools like online conferencing and blogs, can boost vocabulary by eliciting responses in a less formal manner than in traditional, technology-based classroom instruction. Therefore; there could be merit in implementing email within the classroom environment to motivate students to submit electronic responses to assignments and to return those responses via email.

An additional crucial concept for the present study is ‘learning augmented by technology,’ a formal or structured learning approach that integrates digital media, including email, with conventional classroom methods. While attendance is generally expected of both the instructor and the learner, it is not an essential requirement for technology-enhanced learning (Miyazoe &

Anderson, 2010). The method of instruction may be context-dependent, and it isn't easy to combine digital and non-digital teaching methods effectively.

One advantage of situating the study within the Saudi setting is that the English language is actively promoted and supported by the Saudi Ministry of Education (MoE), owing to its critical nature across various academic disciplines (Ur Rahman & Alhaisoni, 2013). It is widely acknowledged that the English language plays a significant role in establishing and maintaining ongoing commercial relationships with other nations.

Yet although the MoE's endeavors are apparent and well-intentioned, students in Saudi public schools continue to encounter numerous challenges due to various factors. Some academics argue that the most significant obstacle is that students lack the motivation to study English, possibly because they are unaware of the professional advantages of possessing a second language (Mohammed, 2015; Rajab & Al-Sadi, 2015). Moreover, historically, the instruction of Saudi EFL learners has been exclusively teacher-centerd and prescriptive (Al-Zahrani & Rajab, 2017). Alrabai (2016) stated that as a consequence of this, there exists in EFL classrooms an absence of motivation and enthusiasm, as well as subpar achievements in overall proficiency in communication and learning vocabulary.

Considering the emphasis of government on promoting enhanced English proficiency and the widespread adoption of online communication platforms such as email, there is substantial merit in examining the potential of technology to augment vocabulary learning in the nation. This relates well to the evolution of education in the UK, for instance, where distance learning via platforms such as Zoom has become the prevailing method for instruction for adults over the last two years, and where virtual home study has been incorporated into adult tuition. Additionally, as highlighted by Han and Keskin (2016), engaging in online discussions and practicing new vocabulary items through instant messaging applications in a digital setting reduces stress compared to a traditional classroom setting. This boosts learners' confidence to edit and self-correct their work.

Following on from the above, the main aim of this research is to investigate the opinions and viewpoints of students regarding using email as a technology-based method of instruction to study vocabulary.

The significance of the study lies in its potential to inform curriculum development and instructional strategies in English language programs, especially in the context of increasing digital integration in education. In striving to meet the main aim, the research will seek answers to the following research questions:

RQ: What are the experiences and attitudes of Saudi adult EFL students regarding using email as a technology-enhanced method of instruction to study vocabulary?

Literature Review

An Examination of Search Technology in Vocabulary Learning

Several studies have been undertaken in digital tasks, with a specific focus on messaging applications (Bensalem, 2018; Han & Keskin, 2016; Khan, 2016). Nevertheless, these studies have concentrated on language advancement as a whole, particularly in inspiration and spelling/writing, and not on differences between during-class and out-of-class progress. Nevertheless, their results did provide support for the efficacy of technological tools in this regard. However, it remains a fact that scant research has been undertaken regarding using technological messaging applications for vocabulary learning.

While the present study primarily examines the technological medium rather than interaction, it should be acknowledged that interactive components might influence psychological reactions and the thought process of novel language tasks and items. As a result, the current study looks at how these approaches can be improved through using digital platforms with pushed output out of the classroom and considers its potential for enhancing teaching practice.

Technologies and Particular Media for CALL

Although the importance of Computer-Assisted Language Learning (CALL) technologies and their potential to enhance vocabulary knowledge, such as by promoting error recognizing and word retention (de la Fuente, 2003; Maftoon et al., 2015), is becoming increasingly acknowledged, the evidence regarding the particular effects of different means on learning outcomes remains ambiguous.

CALL, which utilizes technological tools such as electronic mail, chatbots, webinars, and gaming to help with learning a language in and out of the classroom, is one example of the many possible varieties of Teacher Effectiveness for Language Learning (TELL). Technology in language learning may facilitate the activation of novel cognitive processes, improve information retention and learning, and allow students to study at their own pace and convenience (Shadiev et al., 2017; Pilar et al., 2013; Howard & Scott, 2017). One potential benefit of utilizing email, as one form of CALL, to engage in communication with native speakers is that it could enhance students' linguistic feature awareness, perceptions of cultural differences, grammar and word memorisation, and language production capabilities (Derakhshan & Hasanabbasi, 2015). Nonetheless, it is essential to note that while not all technologies yield the same success in facilitating language learning, certain ones may even impair language learners' motivation, confidence, and autonomy. As a result, it is imperative to assess the appropriateness, effectiveness, and merit of different technologies about distinct learners, environments, and goals (Chun, Smith, & Kern, 2016).

Daniels et al. (2013), Barhoumi (2015) and Fattah (2015) have identified email as a teaching instrument with utility for language learning. This utility has been attributed to its capacity to inspire and direct students regarding a specific objective, such as enhancing their English language proficiency and enabling dynamic learning (Absalom & Pais Marden, 2004). Dynamic learning is the interactive and engaging nature of the learning process made possible by email communication. Beyond the classroom, learning opportunities may also be extended to the informal realm of communications (Wagner & Wilson, 2005). Analyzing the correlation between ‘casualness’ and expanding possibilities for learning beyond the confines of the classroom is possible within the framework of informal learning. Informal learning is commonly distinguished by its unstructured and informal nature (Sacco et al., 2014). It can be defined as learning that occurs beyond formal educational settings, such as classrooms. Online educational communities, workplace learning, experiential learning, and co-learning are examples of such learning environments (Sun, Franklin, & Gao, 2017; Sacco et al., 2014; Hegedi & Hus, 2020).

Email usage as a tool for studying a language exemplifies extracurricular informal learning. The informal nature of email, according to Nashruddin, Alam, and Tanasy (2020), expands learning opportunities beyond the confines of the classroom. Students experience less stress due to the opportunity for reflection and correction to occur before sending due to the delay in email responses (Han and Keskin, 2016).

Sun et al. (2015) stated that online learning communities are supplementary illustrations of non-academic informal learning. They furnish a platform for individuals to exchange information

and deliberate on subjects of mutual interest. An expanding prevalence of informal educational communities facilitates education beyond the traditional classroom setting (Sun et al., 2015).

The usage of technology in and out of the classroom to teach vocabulary was investigated by Alahmadi, Albaqami, and Foltz (2023). They discovered that even though WhatsApp did not affect learning vocabulary in the classroom, it had a small but significant effect outside of it. Concerning instructor accessibility, the study revealed that learners particularly favored utilizing WhatsApp for language learning. The scholars concluded that learners who were already motivated to learn and chose to use WhatsApp as a tool for in-class learning in class out of greater motivation could gain more knowledge.

An additional form of informal education outside the classroom is workplace learning. Nonformal learning and incidental learning are terms that have been applied to learning outside the formal curriculum in the domains of teacher training, workplace pedagogy, and sports (Kyndt, Dochy & Nijs, 2009; Marsick & Watkins, 2001). Colleagues assume a substantial role in the learning process, which distinguishes these educational opportunities (Kyndt, Dochy & Nijs, 2009; Marsick & Watkins, 2001).

The informal or relaxed atmosphere of these opportunities to learn can offer several benefits. By fostering a more tranquil learning environment, they have the potential to alleviate anxiety (Han and Keskin, 2016). When standardized tests and inflexible structures are absent, students are free to explore and test novel concepts without apprehension of failure (Sacco et al., 2014). Furthermore, students may acquire practical abilities and knowledge that are challenging to replicate in the classroom through informal learning (Feichas, 2010).

In general, informal possibilities for learning beyond the traditional classroom setting, including email language learning, participation in online learning communities, and workplace learning, can offer significant educational benefits. The relaxed and casual atmosphere of these educational settings has the potential to alleviate stress, enhance drive, and promote dynamic and interactive knowledge acquisition. These chances for informal education offer learners practical skills and real-life experiences that extend over the classroom.

In general, the significance of feedback in email correspondence is also present in the pushed output, wherein learners actively produce content and obtain guidance. Email correspondence in English as a Second Language (ELT) offers a significant avenue for feedback, enabling learners to actively participate in promoted content and obtain individualized guidance, thereby enhancing the overall language acquisition process.

CALL is one approach to bringing technology into the field of language study space. CALL is a multi-context learning method that uses personal technology communication devices to apply social and content applications (Pilar et al., 2013). CALL is valuable because it allows students to utilize technology like email when they are not in the classroom, expanding their cognitive processes into new areas of learning. Put simply, using technology broadens the contexts in which second-language students apply and consider their language proficiency. Essentially, utilizing a novel learning instrument may stimulate new cognitive processes that facilitate information retention and learning, as suggested by Shadiev et al. (2017). According to Howard and Scott (2017), because of its flexibility, this kind of learning may be advantageous as it gets around time and space constraints and gives students the freedom to study wherever and whenever it is most convenient for them. Furthermore, learners' impression of informality in a classroom setting makes utilizing email and texting useful. This may lead to prolonged learning beyond the confines of the classroom (Wagner & Wilson, 2005).

The current study examines the opinions and viewpoints of students regarding using email as a technology-based method of instruction to study vocabulary. Email is fast, but it takes longer to respond than in-person interactions since it gives you time to think things through and make corrections before delivering your message, which relieves anxiety for learners (Han and Keskin, 2016). The review period ensures one may focus on the activity without feeling pressured to do it quickly.

Although the current study shares some similarities with a survey of the Saudi context conducted by Al-Ahdal and Alharbi (2021), the latter focused on collaborative tasks instead of individual efforts, which is precisely what the present study explored. Nonetheless, the emphasis of the present research on creating critical knowledge applications is supported by their results. During three months, 80 English undergraduates from two Saudi higher education institutions—Majmaah and Qassim universities—participated in Al-Ahdal and Alharbi's (2021) study. Via teaching and technology, learners demonstrated enhanced vocabulary retention via technology-assisted learning of languages. Furthermore, their research utilized a combination of methods (qualitative and quantitative), assessing pre- and post-test results across genders and obtaining direct input from instructors and learners via questionnaires. By using technology for teamwork, the results showed that the empirical group could recall lexical elements. Additionally, after the intervention, the empirical group performed noticeably better, with a more significant number of students reaching values that were closer to the mean. There was no discernible difference in how they performed vis-a-vis the group that had not received the intervention.

The gap identified by the present study is related to the function of technology about pushed output procedures and learning words when evaluating this data about CALL technologies, notably email. Some essential topics related to technology and language need to be considered to investigate this subject in more depth and precisely identify the wider research gap.

Applications of Messaging: Benefits and Uses of Pushed Output Pedagogy

As for Swain (1985, 1993), consistent practice is necessary for efficient pushed output. This entails having the chance to evaluate, recognize mistakes, and make corrections based on past input and learning. As a result, the primary communications delivered can be examined (and thus conveyed upon), re-considered (mistake recognition), and modified (modification) in a matter of minutes. When guidelines are presented using CALL technologies, subsequent texts are created utilizing target words and returned by email. To guarantee accurate results, responses can utilize technological means to solicit further information without directly confronting the submitter. This continues verification, the cycle of reflection and corrections. Both in-class and extracurricular education may be facilitated by using these activities. As Yao (2011) pointed out, there is less control when not in the classroom, but privacy, appropriateness, and content management may still be monitored throughout use. The findings of Yao (2011) and Lauricella and Kay (2013), demonstrating learners were more motivated to utilize technology like email outside of the classroom than in it, are noteworthy. Realizing that despite the absence of control and keeping in mind privacy and content issues, there is evidence to suggest that using technology outside of the classroom enhances learning. The ability to analyze, rethink, and change messages (by utilizing reflection, mistake detection, and correction processes) on time is another benefit of utilizing Instant Messaging (IM) applications such as WhatsApp.

Furthermore, without specifically correcting something, clarification might be asked for. Allagui (2014) notes that WhatsApp and related technologies are more likely to use highly

informal and instantaneous language than email, which makes them more synchronous and results in shorter message lengths. Using emojis is also higher on WhatsApp than on emails.

Nonetheless, email was deemed the optimum technology medium to use given the present work's scale and available resources. Email expands on what can be accomplished in a classroom setting since it allows learners to react in their timing and from a location of their choice. This is the reason for choosing email over other options. This functionality may be provided by different digital platforms. Still, email offers certain unique advantages as well, such as the ability to save and evaluate the exchange at a later time, as well as being more formal (Gonglewski et al., 2001). The latter advantage – of formality - contributes to its increased effectiveness when evaluating pushed output. According to Chalak et al. (2010), learners see emails as being more official due to the need to use proper grammar, but they associate IM apps with casual interaction. Therefore, while using WhatsApp or other IM apps may distract students from their studies, encouraging email ensures that they continue to approach their studies with focus and concentration, while also practicing more formal, grammatically correct English.

According to earlier research in this field, So (2016) pointed out that for CALL techniques to be effective, whether used alone or in conjunction with technology-enhanced learning, learners' technological expertise must be considered first. To give learners time to become used to their new educational style, the material should be presented in bite-sized portions instead of a complete educational experience (Stahl et al., 2010). This emphasizes another advantage of email: its instructional and informational material may be brief and to the point. As Traxler (2009) noted, this is partly due to the fact that different students obtain knowledge at different rates and employ other strategies. Given this, the bite-sized strategy allows learners enough time to modify their learning styles to include technology use both inside and outside of the classroom (Şahin Kizil, 2017).

Maftoon et al. (2015) looked at the effect of CALL on the linguistic development of 40 intermediate Iranian learners of English. The learners, divided into two groups of twenty, were randomly chosen from a Teheran language school and ranged in age from 16 to 18. Electronic teacher feedback, a computerised dictionary, and the vocabulary-learning programme VTS.S were given to the experience group. The control group learned vocabulary using conventional techniques and a paper dictionary; they did not utilize any specialised software. The VTS.S group outperformed the control group, according to the findings. The study's findings may benefit both educators and learners, regardless of the resources they have at their disposal.

Derakhshan and Hasanabbasi's (2015) research assessed the relationship between studying English when not in the classroom and internet media, including Facebook and email. The research found that students learn another language via correspondence with foreign-culture second-language professors, both consciously and unconsciously. Additionally, students may communicate with mother-tongue speakers or their lecturers via email. Their research demonstrates how social media platforms like Facebook help pupils interact with others. Additionally, it was thought that using computer media to educate those participants who were focused on improving their English passively would be advantageous. The study concluded that social engagement on social media platforms encourages people to converse with one another.

Han and Keskin (2016) investigated how students' speaking anxiety was affected by using WhatsApp in bachelor-level L2 speaking sessions. Thirty-nine students participated in the four-week program, which included WhatsApp activities during L2 speaking lessons. In-person interviews were then conducted to learn more about their ideas about the activities. The results

showed that by lowering L2 speaking tension and anxiety, activities on WhatsApp had a substantial impact on the learners' language acquisition.

Andrew et al. (2018) investigated how students felt about utilizing technology for recreational and educational purposes compared to more conventional classroom settings with books, texts, and papers. According to the findings, students who find studying with contemporary technology enjoyable said that it improves their learning and helps them get ready for upcoming assignments. The preferred information sources were printed materials like books, with technology coming in second. However, it was found that students engaged in academic study did not frequently use technology such as phones and tablets. Furthermore, the findings indicated that the respondents desired to acquire knowledge through an integration of traditional resources (textbooks and papers) and technological instruments (laptops and mobile devices).

An empirical study on the benefits when utilizing a particular technology (blogs) for English language learners was carried out by Sun and Chang (2012). They listed many benefits for students, such as how to handle the demands of school, how to comprehend more, and how to help students think more carefully about sharing knowledge and information with other students. Additionally, according to Sun and Chang (2012), this particular technology encourages students to raise their writing levels for more excellent education.

Email systems may improve writing in addition to expanding options for pushing output by enabling learners to employ vocabulary words in messages they send outside of the classroom. As Bouhnik and Deshen (2014) pointed out, writing is possible with most interaction CALL technologies, combining all language abilities and promoting the metacognitive growth of language skills. In addition to these advantages of utilizing email to expand vocabulary, most of these platforms' autocorrect features also help with spelling development (Allagui 2014). Laurillad's conversational framework suggests about the advantages of email usage in the classroom, any technological advancements should augment and supplement the overall educational experience and process, rather than supplant it. This entails utilizing conventional methods as a supplement to communication, debate, production, and articulation. Therefore, email can help more reticent students to participate in class discussions and activities and reduce their fear of speaking, according to Laurillard (2010). This point emphasizes the utility of email as a component of a technologically enhanced educational approach, even when utilized in the classroom, as in the present study. Now that the benefits of technology in promoting vocabulary have been shown, more thought must be given to pushing output in the context of word development.

Despite the pluses noted in the studies cited above, several disadvantages for students have been noted in other studies (Wu, 2006; Campbell, 2003; Fageeh, 2011; Alsamadani, 2018; Aljumah, 2012) on opinions about utilizing technology for English language learning. These disadvantages include inadequate connectivity quality, losing time with outdated or fractured devices, and the worry that one will lose the ability to write by hand, among other issues.

Rationale Concerning the Employment of Email Technology

While many applications are helpful for delivering messages, email was thought to be a more acceptable medium for the present study's investigation of pushed output and vocabulary development. Emails not only give instructors a degree of control that other technology may not be able to match, but they also allow learners to respond independently rather than in groups since some learners require privacy concerning what their peers see. Jou et al. (2017) first asserted the

significant use of email in the EFL classroom and provided empirical data to support this viewpoint. In addition to these findings, although email exchanges may happen instantly, they are often asynchronous, meaning there is less need to answer immediately. This reduces anxiety and improves the precision and complexity of replies (Alemi et al., 2015).

Moreover, email sending can be considered a technological extension of Vygotsky's constructionist learning approach, which emphasizes encouraging and pushing output (Rambe & Bere, 2013). This perspective aligns with the traditional pedagogical approach of using tools to facilitate learning (Zimmerman, 2013). Email was chosen for usage during the present investigation because of these variances.

Email is a tool that can encourage students to incorporate terminology from the goal list into their work. One email containing the target phrases may be sent to several students, making it a highly efficient use of teacher time as a teaching tool in a technology augmented method (Pirasteh, 2014). According to Maftoon et al. (2015), learners find that getting instruction via email gives them the freedom to read, think over, and evaluate their responses at their leisure without feeling pressured by the classroom. To offer an all-around educational approach, CALL adoption will be coupled with instruction. Additionally, there is proof that using email and text answers as an educational tool outside of the classroom could increase motivation among learners because it is perceived as less psychologically taxing than engaging in non-traditional educational tasks (Nomass, 2013). This offers an additional justification for using email in a pushed output research. Once again, even if technologies like WhatsApp provide similar advantages, as noted, their casual tone and extensive usage of emoticons make them less suitable for official education vis-à-vis email. In addition, Pennington (2013) found that employing digital tools increases the likelihood of modifications and adjustments. Similarly, when a student asks for clarification without being given the specific phrase they are seeking, they are prompted to reflect and use their understanding to uncover the correct word, according to Basterrechea et al. (2014).

The present study addresses a gap in knowledge regarding the impact of technology on developing English vocabulary, mainly writing skills, among intermediate English specialist university students at Saudi higher education institutions. The research employs a mixed-methods approach to examine the effects of technology on ESL education in Saudi Arabia. Additionally, the study may fill a gap in the UK, where a substantial influx of second language learners from Eastern Europe, Iraq, and Afghanistan before Brexit has led to an expansion in E as an Additional Language (EAL) education in language centers and schools. The Covid epidemic had a signifcant influence on education, leading to increased online instruction via Zoom and email. As a result, studies on EAL instruction using new technology have suddenly gained significant importance, both globally and in Saudi Arabia.

While some research has been undertaken in the USA and South America (e.g., the Lopez 2020 paper mentioned earlier), there are still knowledge voids in the UK. Indeed, Arnot et al. (2014), writing for the Refugee Council, are the only researchers to have published an article on this subject. The focus of their article was on school-based EAL education and technological integration. Within Saudi Arabia, a solitary study by Al-Ahdal and Alharbi (2021) is admissible for consideration. In contrast with the present study, their research centerd on collaborative endeavors conducted in groups rather than individually. Consequently, this article will examine several issues that have not garnered the necessary attention, if any, and fill several voids in the existing literature. As has been previously stated, research focusing on the acquisition and evaluation of vocabulary knowledge among university ESL students is scarce.

Methods

This study utilized a mixed-methods approach to examine the effectiveness of email as a tool for English vocabulary learning among Saudi undergraduate students. The research involved four main components: participant selection, research instruments, and research procedures, including quantitative and qualitative data collection and questionnaire.

Participants

In three third-year English significant courses at the College of Arts and Sciences in Qilwah, Albaha University, Saudi Arabia, a total of three groups of Saudi adult EFL learners aged 20 to 24 were selected from semester one of the academic year in a period beginning in September 2019 and ending at the end of November the same year. These students, non-native speakers of Arabic enrolled at Albaha University, had recently started their central studies in English. Before this, their exposure to the English language was limited to casual interactions in stores or with Indian/Pakistani laborers, as well as primary English education in school. They had not engaged in any formal linguistic studies or immersive English language experiences before commencing their university studies.

Research Instruments

The chosen book for this study emphasizes practical, frequently used vocabulary to aid students ranging from beginner to advanced levels in expanding their vocabularies. The collection comprises six series, each containing distinct lexical items that cover a considerable proportion of the lexical items encountered in written and spoken materials. The units in this book are centerd around narratives, employing graded reader-style stories. This method is grounded in the pedagogical principle that incorporating target words into a narrative format enhances the significance of an exercise for students. As a result, this book is exceptionally well-suited for the current study.

Research Procedures

Three distinct instructional approaches were utilized to teach the vocabulary items to the learners, one for each group. Over five weeks, 90 target words were introduced, with six words per treatment and 18 words taught weekly across the three treatment groups. Each group was provided with a set of 90 target words, further separated into three sets of 30 words each.
To mitigate any potential effects of ordering, the syllables were arranged in an unbalanced fashion. For each of the subsequent conditions—pushed class condition, pushed email condition, and non-pushed class condition—each group utilized a set. For example, the initial six words from each set were employed in week one, and the list continued.

By ensuring that the presentation of each condition occurred in a random order across all groups, counterbalancing effectively eliminated any potential ordering effects. A comparative analysis was conducted using three sets of target vocabulary, three groups, traditional teaching methods, email learning, and classroom learning with pushed output.

The participants were provided with a comprehensive explanation of the experiment's objectives and methodology during the initial week. This research utilized three distinct intervention conditions to examine the effects of pushed output on outcomes related to language acquisition. Before the commencement of the experiment and when the participants were given the directive to compose, they had not encountered the target words.

Questionnaire

Two sections comprised the questionnaire. Section A comprised Likert scales that were subjected to quantitative analysis. Based on responses to a five-point Likert scale ranging from 'strongly disagree,' through 'disagree' to 'strongly agree,' the students were asked to rate the extent to which they agreed with specific statements regarding the benefits or drawbacks of the instructional techniques employed in the classes. The primary components consist of their viewpoints and opinions concerning using email for vocabulary learning, the integration of email learning with vocabulary learning, and the aforementioned three elements. SPSS was utilized to analyse this section.

Section B adopted a qualitative approach employing open-ended questions to gather insights into the learners' attitudes. For instance, the participants were queried about their sentiments towards email, the benefits and disadvantages of using email for vocabulary acquisition, and the reasons they believed (or did not think) that email facilitated vocabulary learning. Regarding Section B, students can respond in either English or Arabic. Therefore, specific comments are composed in English, while others are written in Arabic. This approach ensures that the precise experiences of the students are obtained, as the primary objective is to gain insight into their experiences rather than to assess their English language proficiency. The translation is performed by the researcher.

Research Tools

The research tools used in this study include:

Vocabulary Book: A collection of six series containing distinct lexical items centerd around narratives, which help in practical vocabulary expansion for students at different proficiency levels.

Instructional Methods: Three instructional approaches (pushed class condition, pushed email condition, and non-pushed class condition) were used to introduce 90 target vocabulary words to the learners over five weeks.

Questionnaire: A two-section questionnaire designed to gather quantitative and qualitative data from the participants. Section A includes Likert scales to quantify student opinions on instructional techniques. At the same time, Section B consists of open-ended questions to capture detailed insights into their experiences and attitudes towards using email for vocabulary learning.

Results

Section 1. Reliability of the Likert-Scale Survey

This section provides an analysis of the research question, namely: *What are the experiences and attitudes of students regarding using email as a technology-enhanced method of instruction to study vocabulary*? To ascertain the dependability of the survey's opinions and experiences regarding employing email scales and their sections in the current investigation, descriptive statistics were performed beforehand of SPSS-based statistical analysis. This procedure involved calculating Cronbach's alpha as part of the reliability analysis. Twenty items covering students' attitudes were coded before reliability analysis, with negative items being inverted (scale one was converted to strongly concur, and scale Five was converted to strongly disagree). The obtained score was 0.727 (see Table One). According to Nunnaly (1978), this value satisfies Cronbach's internal consistency of reliability criteria.

Table 1. *Alpha of Cronbach's reliability equation coefficients for the survey*

Alpha of Cronbach	Number of Items
0.727	20

Characteristic Statistics About the Views and Opinions of the Respondents Regarding Using Email as Measured by the Likert Scales in Section 1

To ascertain the views and experiences of all three groups regarding using email, the responses to a questionnaire comprising 20 items and graded on a five-point Likert scale ('1: strongly disagree' to '5: strongly concur') were analysed in the third section of the primary study after the treatment. An intriguing set of results was uncovered by the 54 students who responded to the questionnaire. The initial section of the questionnaire comprised three items: the opinions and experiences of the students regarding vocabulary learning, using email, and the integration of linguistic knowledge and email usage. Each segment comprised 50% positive content and 50% negative content. Three tables were drawn up to represent the analysis. There are both affirmative and negative statements in each table. The first part of Table Two presents the average ratings that the 54 learners bestowed upon the positive statements using a five-point scale. In the second section of Table Two, the mean ratings assigned by the 54 pupils to the harmful statements on a five-point scale are displayed. To facilitate the interpretation of the results, the scale was adjusted for the negative statements. Initially, the scale went from number one – 'strongly disagree' - to number 5 - 'strongly agree.' However, for the negative statements, a higher score indicated disagreement. Therefore, the scale for these statements was adjusted to extend from number one – 'strongly agree' - to number 5 – 'strongly disagree.' This adjustment allowed for a more intuitive understanding of the results, where a higher score consistently indicated more vital agreement with the statement, whether positive or negative.

As indicated by the inverted mean scores, the scale was inverted from number one – 'strongly disagree' - to number 5 - 'strongly agree' - in order to generate a scale that extended from number one – 'strongly agree' - to number 5 – 'strongly disagree'.

Table 2. *Views and experiences regarding the learning of vocabulary*

Vocabulary study plus positive statements	N	Mean	
It takes no more than five weeks to get the new vocabulary.	54	2.67	
English vocabulary is something that piques my interest	54	3.19	
I research new words before putting them into practice.	54	3.19	
Vocabulary study plus negative statements	**N**	**Actual mean**	**Reversed mean**
New vocabulary does not become simpler to learn when it is presented in context.	54	1.85	4.15
Learning the vocabulary is not a prerequisite for mastering a foreign language.	54	2.09	3.91
An extensive vocabulary in a foreign language cannot be learned merely through extensive writing.	54	2.24	3.76

The findings presented in Table Two indicate that students' experiences and attitudes regarding learning vocabulary can be divided into two sections: one for positive statements and one for negative ones. A significant proportion of the students agreed with two of the affirmative statements: 'It takes no more than five weeks to get the new vocabulary,' and 'I research new words before putting them into practice'. About the negative statements, a significant proportion

of the students expressed disagreement with the assertion 'New vocabulary does not become simpler to learn when it is presented in context'.

Table 3. *Opinions and experiences regarding email usage*

Usage of email plus positive statements	N	Mean	
Email is simple to download on my mobile device.	54	2.8	
Email provides a more convenient means of communicating with my instructor compared to alternative applications.	54	3.26	
Email enabled me to obtain additional information beyond what was available in my texts.	54	3.48	
Usage of email plus negative statements	N	Actual mean	Reversed mean
Utilizing email did not increase my confidence in my educational pursuits.	54	1.94	4.06
It was not enjoyable for me to learn via messaging.	54	2.15	3.85
I couldn't interact more effectively via email than in class.	54	2.02	3.98

Positive and negative statements comprised the two segments of students' experiences and attitudes regarding using email (see Table Three). About affirmative statements, a significant proportion of the students agreed with the following: 'Email enabled me to obtain additional information beyond what was available in my texts'. In addition, the prevailing viewpoint among students was dissent towards the negative assertion 'Utilizing email did not increase my confidence in my educational pursuits'.

Table 4. *Opinions and experiences regarding email-based vocabulary study*

Integrating email and vocabulary with affirmative statements	N	Mean	
Email-based vocabulary study fosters in me a sense of active engagement.	54	3.46	
Email-based vocabulary study is beneficial to my education.	54	3.24	
An email-based vocabulary study does not require much time.	54	3.37	
Email-based vocabulary study improves my comprehension of vocabulary more than classroom-based exercises.	54	3.39	
Integrating email and vocabulary with negative statements	N	Actual mean	Reversed mean
Email-based vocabulary instruction does not inspire me to learn.	54	1.78	4.22
Vocabulary study via email is insufficient to enhance my written communication abilities.	54	1.65	4.35
Using a technology-based exercise to learn words does not satisfy me.	54	1.96	4.04
Vocabulary-learning activities conducted via email do not enhance the level of interaction between myself and my instructor.	54	1.98	4.02

Positive and negative statements comprised the two sections of how learners felt and opinions regarding vocabulary learning via email (see Table Four). Regarding affirmative statements, most students concurred with the following: 'Email-based vocabulary study fosters in me a sense of active engagement.' Furthermore, concerning negative statements, a significant

proportion of the students expressed disagreement with the assertion 'Vocabulary study via email is insufficient to enhance my written communication abilities'.

Qualitative Questionnaire

In this section, the qualitative findings regarding the students' attitudes are presented through using open-ended questions, including those regarding the participants' feelings towards email usage, the benefits and drawbacks of employing email for developing vocabulary, how email facilitates word learning for students, and the pros and cons of learning in-person without email.

The previous section, which provided an overview of the quantitative findings, leaves several unanswered inquiries, including the sentiments of the participants regarding email usage, the benefits and drawbacks of employing email for gaining vocabulary, and the justifications for whether or not email facilitation aids students' word learning.

The statistical analyses in the preceding section depicted the experiences and attitudes of learners about vocabulary acquisition, email usage, and subsequent vocabulary acquisition via email. Determining and assessing the participants' precise sentiments regarding the email intervention, as well as the benefits and drawbacks of utilizing email for vocabulary acquisition, was deemed crucial for elaborating on these findings and providing substantive insights.

An instance of this was when it was critical to comprehend the students' sentiments and perceptions regarding the intervention, including their experiences and attitudes towards utilizing email to acquire new knowledge, their sentiments regarding the email's impact on vocabulary acquisition, and the identification of any drawbacks or concerns.

A comprehensive understanding of the experiences and perspectives of all 54 students regarding using email for vocabulary learning was achieved through the distribution of an open-ended survey. This survey aimed to address the aforementioned inquiries and concerns.

To examine the open-ended survey, a thematic analysis was performed. Subsequently, codes, sub-codes, and patterns were ascribed to the current data by their respective motifs (Bryman, 2008). An increased understanding of the phenomenon under investigation was attained through using thematic analysis (Braun & Clarke, 2006). Later, an in-depth examination was conducted of the experiences of the learners and attitudes regarding using email as a tool for vocabulary acquisition. The codes about the impact of email usage on English vocabulary acquisition and its benefits (including enhanced learner motivation, self-directed learning, and online response storage) were derived from the analysis of the information collected through the open-ended survey. A lack of alternatives about handwriting and technical difficulties were among the obstacles that the participants had to overcome in order to become accustomed to using email. These results are elaborated upon next.

Overarching Perceptions and Practical Encounters with Email Users

Concerning analyzing qualitatively the information gathered from Section B of the survey, which comprised open-ended inquiries, it was found that 47 out of the 54 participants expressed satisfaction with utilizing email for vocabulary acquisition beyond class time and deemed its use indispensable. Furthermore, among the 54 participants who responded to the open-ended survey, 31 identified the ability to double-check their responses as a positive attribute. Moreover, the participants noted that email is a time-saving tool and facilitates writing from any location and at any time. Moreover, they held that they could continue to use email to learn lexical items by composing stories using the provided words, as they enjoyed the digital learning experience facilitated by the internet. As a result, they contended that instruction delivered through email

contributed favorably to their learning. According to these responses, the prevailing sentiment among the participants was favorably dispensed towards email usage for vocabulary acquisition.

In contrast, seven students who participated in the open-ended survey believed that utilizing email for vocabulary acquisition was challenging and unnecessary. Furthermore, they considered email a futile use of time due to the unreliable nature of the Internet, suggesting that these individuals' dissatisfaction may stem from the quality of their Internet connection rather than using email itself. If they had a reliable Internet connection, their views on using email for vocabulary acquisition might be more favorable.

Employing Email as a Pedagogical Tool for Vocabulary Learning

The vast majority of respondents to the survey deemed it essential to utilize email as a tool for practicing vocabulary. As an illustration, specific individuals were granted the opportunity to compose a narrative utilizing the words furnished in their electronic mail and were afforded an ample amount of time to contemplate their responses without experiencing any sense of time constraint.

A total of 16 students indicated that they would instead study vocabulary via email than by writing in class using pen and paper. However, they contended that their vocabulary expanded and improved once they began utilizing pushed output to acquire vocabulary, thereby demonstrating the inadequacy of traditional methods for vocabulary acquisition. As one participant stated:

> I think the reason my language is getting better is because every week I have to write a story utilizing six words to the instructors. It was clear that I had progressed because my language was perfect. Writing a story in an email is a better way to learn new words than doing the task with pen and paper. (Code: 3)

An additional respondent shared this viewpoint. Despite acknowledging her struggle with vocabulary retention and her inability to devise a strategy to improve this aspect, she proceeded:

> When I began to utilize email to write six vocabs in a story, I was astonished at how well it helped me improve my vocabulary. This is because I was mixing the structure of pushed output with utilizing email to practise words in a story. I can write words with stories whenever and wherever possible, and my teacher also sends me feedback by email. My writing and comments are in my email, so I can look at them whenever possible. What words I know now I think are more than I got before. (Code: 40) (English version of Arabic)

Learners favored using email for educational purposes over using pen and paper, according to their prior perspectives. This may be because they observed that composing a story using six specific words and sending it to the instructor by email allowed them to practise utilizing the words at their tempo and location, without feeling rushed, and receive weekly feedback. Furthermore, because they were permitted to select their workspace, they were free to compose whenever and wherever they pleased, and they would receive weekly feedback from the instructor. This enabled them to acquire new vocabulary and prevent the improper selection of words within sentences and misspellings; this was accomplished through using six words in a narrative, which prompted them to engage in weekly writing practice and dedicated effort towards vocabulary development. Thus, conventional teaching methods may be less effective for vocabulary acquisition because, according to the participants, they lack the flexibility to practise exercises such as writing and storytelling at any given time or location. Critically, they consequently lack adequate opportunity to practise vocabulary usage in the classroom when conventional teaching methods are utilized.

In contrast, two respondents to the open-ended survey suggested that it might be advantageous to use both pen and paper and email to compose the six words in the narrative. This indicates that the learners required a combination of strategies to exploit the benefits of each approach to enhance their vocabulary. However, neither of these respondents believed that composing an email narrative using six words had enhanced their vocabulary. According to the qualitative questionnaire, seven of the respondents indicated a preference for writing by hand using pen and paper as opposed to email. They claimed that practicing calligraphy with paper and pen improves handwriting and that writing by pen is more convenient because it does not require a laptop or mobile device; all that is needed is a pen and some paper.

Furthermore, it was found that thirty percent of the participants believed that transmitting Word documents via email enhanced their understanding of vocabulary and writing organisation. Nevertheless, one criticism pertained to the hindrance that online devices posed to develop orthography.

Out of the total of 54 participants, nine reported having challenges with word spelling when using a pen and paper. These individuals noted that using email had facilitated the improvement of their spelling skills and reduced the number of errors they made. As an illustration, one participant expressed that she found it advantageous that spelling errors she made while "composing on a Word document via email were automatically corrected." Nevertheless, she opted to duplicate the challenging spelling and vocabulary into a separate file. She subsequently started to e mploy the terms frequently.

The students' perspectives suggest that using email facilitated the improvement of their spelling skills through the implementation of the spellcheck feature, which verified the ultimate accuracy of the written material. Conversely, three respondents asserted that email did not assist them in surmounting their challenge about misspellings. They suggested that the automated correction of words into their correct spellings could potentially exacerbate the learning process. It seems that these respondents believed that having automated corrections for the misspellings in their responses was not beneficial. Instead, they preferred to compose their responses manually, which would have allowed them to rectify the errors.

Advantages of Employing Email

An examination of the data unveiled that 47 respondents enumerated several benefits of utilizing email as a tool for acquiring vocabulary. These advantages included assistance in acclimating to the email learning process, enhancement of student motivation and self-directed learning, and the ability to save responses online. The following section elaborates on these benefits.

Facilitating the Adjustment of the Participants to the Email Process

Thirty-eight participants regarded the experience of composing a word narrative via email as beneficial. They could strategize, write, modify, and verify the story before its delivery. The participants expressed that their proficiency in utilizing the target items was enhanced using email. However, they claimed that they did not devote enough time in class to studying the phases of writing the six words in a story format; in contrast, the completed narrative rather than the writing process was emphasized in class. Furthermore, one individual commented, "When I was required to write in class, I immediately began writing without any premeditation, drafting, or revision." She attributed this to a "lack of time." It is evident from these perspectives that the participants

recognized certain benefits of composing a story via email utilizing the six provided materials. They further believed that the process could be improved by incorporating the following phases: planning, drafting, editing, and delivering or generating.

Enhancing the Motivation of Learners

A total of 32 respondents indicated that using email to learn words through the composition of a narrative motivated them to acquire more information, according to an evaluation of the open-ended survey data. As an illustration, one participant articulated that their involvement in the email exercise "facilitated an enhancement in my motivation to efficiently compose vocabulary." Furthermore, these individuals expressed their enthusiasm for the electronic correspondence portion of the task. "Receiving email feedback from the instructor motivated me to review and revise the material at my leisure," said one participant. An alternative viewpoint held that using email to complete the task served as a motivating element. One individual commented:

> I used it to write a few words in paragraphs and send them to my teacher via email. I liked getting feedback in the format of Word because it was easier to understand than comments written by hand, which I don't like. I appreciate comments in Word format with clear writing. I think it's essential to get more motivated to write on a Word page by email. (Code: 34) (English version of Arabic)

It is evident from these perspectives that the majority of those who took part had a greater desire to finish their writing assignments via email as opposed to pen and paper, and that students were more inspired to learn vocabulary through using email.

Self-directed Study

Examining the data unveiled that 18 pupils opined that utilizing email to accomplish the task was a commendable approach to foster self-directed learning among the participants. They diligently prepared a narrative utilizing the six words they learned outside the classroom, and subsequently transmitted it to the instructor.

Three of those who took part reported that they were still encountering difficulties with Word documents and email transmission one week into the intervention. However, they initiated the process of learning Word and sending emails independently. A cohort of 27 respondents concurred with this final stance, with one individual stating:

> I figured out how to email my instructor one day with no requesting or getting any help from the instructor. I think that gaining knowledge on my own can help me learn more and get comments from the instructor on my work. (Code: 16) (English version of Arabic)

Concerning this matter, twenty-eight percent of the respondents indicated that substituting email for traditional writing instruments could bolster their confidence. They claimed that using email, as opposed to pen and paper, gave them a greater sense of liberty. In addition, they could devote more time to their writing, with five of the participants mentioning that they appreciated the ability to access email at any time without being rushed. In contrast to the traditional method of pen and paper, they believed that the absence of a time constraint on completing assignments via email reduced their writing anxiety.

A significant proportion of the respondents, based on the information they provided, concurred that email served as a beneficial tool to enhance their learning. This consensus was evident as their written vocabulary expanded and their self-assurance was bolstered.

Online Answer Storage

The data revealed that 18 respondents regarded the ability to save answers online as a benefit of utilizing email. One participant elaborated that she utilized the six sentences given each week to compose a narrative, which she then archived in her email. By utilizing the instructor's feedback, which she additionally saved in her emails, she could access her responses at any time and from any location, eliminating the need to rummage through potentially misplaced printed materials.

One participant remarked that it was easy to learn vocabulary by incorporating the six items into a story:

> [This is to] maintain every response and comment in a single location… [If] these questions are in the final examination, I can prepare by studying. This also gave me a chance to get feedback on all five tasks over five weeks.

Problems Using Email

The examination of the responses gathered from the open-ended survey revealed that the students encountered specific challenges when utilizing email, including technical issues and limited chances to develop their handwriting skills. The following part elaborates on these issues.

Technical Challenges

Four of the participants reported encountering challenges in establishing Internet connections for the initial two weeks of the treatment due to inadequate connectivity in their residential areas. They observed that a critical aspect of email usage was the necessity for a stable internet connection. An additional concern raised by one participant was the fact that she submitted the response to the instructor one day without considering or revising it due to a malfunctioning device. Another participant who lacked internet connectivity at her house and was compelled to visit her sister's residence to finish her assignment and submit it to the instructor via email corroborated this viewpoint.

Multiple individuals thus expressed that the absence of internet connectivity posed a challenge for an email-related endeavour. Some participants regarded the requirement for a stable internet connection to use email as one of the disadvantages of the intervention.

Insufficient Opportunities for Handwriting Practice

Based on the responses to the open-ended survey, two respondents held the opinion that daily keyboard usage could have a negative effect on their handwriting when using email. They stated, for instance, that using technology (email) was necessary and advantageous when studying English, but that it might harm their handwriting when writing.

Similarly, three respondents elaborated that their English typing speed was sluggish. When they used social media platforms like Twitter, Facebook, and Instagram, they exclusively did so in their native language (Arabic). Nevertheless, they perceived that writing numerous emails did enhance their typing ability, which proved to be advantageous. As an illustration, one participant lamented that her penmanship was subpar and the reason she was committing errors; she believed that composing her assignments via email facilitated her success and allowed her to evade the critiques of her instructor regarding her handwriting.

Based on the preceding, it seems that one of the participants harbored embarrassment regarding her illegible handwriting when completing written English assignments using pen and paper. However, she held a favorable perception of composing in a Word document that was

subsequently transmitted via email as it allowed her to circumvent the critiques of her instructor while simultaneously honing her English typing ability.

Discussion

Opinions and Views Regarding Email-Based English Vocabulary Learning

The findings from the open-ended surveys are summarised and triangulated in this section to address the research question. This inquiry pertains to use both quantitative and qualitative data to assess the extent to which the perspectives of the participants corresponded with the results of the examinations.

To recap, the research question the study sought answers to was:

RQ: What are the experiences and attitudes of students regarding using email as a technology-enhanced method of instruction to study vocabulary?

To investigate students' attitudes and opinions regarding using email as a technologically enhanced approach to vocabulary study, this question seeks to elicit responses from those who responded via the questionnaire designed to collect such data.

Two segments make up this section. In the first section, the Likert scale results are examined, encompassing the learners' views and experiences regarding the amalgamation of vocabulary learning and email usage. The sentiments of the respondents regarding using email, the benefits and drawbacks of employing email as a tool for improving one's vocabulary, and the rationales behind the positive and negative effects of email usage on word learning are examined in Part 2, which delves into the open-ended inquiries of the survey.

Analysis of Email Usage from a Quantitative Standpoint

Positive attitudes and observations were reported by learners in all three sections of the survey: vocabulary learning, email usage, and vocabulary learning via email. These results validate the conclusions drawn in previous research, including Derakhshan and Hasanabbasi (2015), which demonstrated that learners view email as a beneficial tool for learning English through collaborative communication, and Andrew et al. (2018), whose results are further supported by the present study's assertion that students hold a favorable view regarding using technology in education.

Despite this, numerous queries remain unaddressed. How did the participants feel, for instance, regarding using email? What are the benefits and drawbacks of utilizing email as a tool for vocabulary acquisition? Why did using email facilitate the students' word acquisition? To respond to these inquiries, the subsequent section provides a more comprehensive depiction of the students' perspectives and encounters with utilizing email as a tool for vocabulary acquisition through a quantitative analysis of the open-ended questionnaire items.

Positive and Negative Aspects of Email Usage as Viewed Qualitatively

Multiple studies have substantiated the manifold advantages of utilizing technology for English language learning (Lauricella & Kay, 2013; Yao, 2011). Motivation is one of the advantages of using email for writing. Multiple studies (e.g., Lauricella & Kay, 2013; Yao, 2011) have found that learners' motivation for studying English is enhanced beyond the confines of the classroom when they utilize email. This finding is consistent with the findings of the current study, in which individuals reported that email-based activities improved their desire to learn and use written vocabulary. Additionally, everyone involved expressed their enthusiasm regarding compleing tasks through electronic correspondence. One of the students completed lexical

paragraphs via email and communicated with the instructor via email; she preferred to receive feedback via email rather than in handwritten form because she often could not comprehend the former.

Nevertheless, before maximizing the benefits of the technology (email), students must first acquire the necessary skills to operate it. Once mastered, the technology can aid students in writing more readily and pressure-free, and its adaptability, accessibility, and provision of feedback may reduce their apprehension regarding writing in English. As a result, using email as a medium for the study of English may enhance students' incentive to advance their English vocabulary and compose narratives that incorporate new words more often and with more tremendous enthusiasm.

This result is consistent with the conclusions drawn in prior research (Lauricella & Kay, 2013; Yao, 2011; Nomass, 2013) demonstrating that student motivation is a significant advantage of technology implementation. It appears, in this regard, that technology increases the overall motivation of students to learn. Nomass (2013), for example, stated that incorporating email and text answers as supplementary learning materials beyond the classroom increases student motivation as learners perceive such activities to be less psychologically taxing than traditional classroom tasks.

A benefit of incorporating educational technology into English classes, according to the qualitative findings of the present study, is that it emphasizes independent study. According to the sociocultural perspective, education and learning are fundamentally social endeavors. Before pupils formally attempt to comprehend and retain information, learning begins at a social stage (Vygotsky, 1978). About the sociocultural belief system, English feedback instructors and their students actively engage in the teaching and learning process through using educational technologies such as email in a virtual classroom. Conversely, the technological resources presently accessible may facilitate approaches to education centerd on the student. This is supported by the findings of the present study, where 18 of the 54 learners who completed the open-ended questionnaires thought that completing activities via email was an excellent method to promote self-learning. Outside of class, those taking part engaged in autonomous study by composing a narrative incorporating six items from the vocabulary. These stories were subsequently submitted to the instructor.

Technology integration in the classroom is indeed gaining widespread acceptance as a practical resource for both instructors and learners (Shadi-ev et al., 2017; Pirasteh, 2014). One element that enhances the practicality of technology is its facilitation of self-directed learning, which has been observed to yield benefits in information retention and development while learning a second language. Even though three participants initially expressed challenges with composing Word documents and emailing them following the first week of the intervention, they ultimately came to appreciate the advantages of engaging in these activities independently. In addition, 27 participants agreed that writing an email to their instructor one day with no requesting assistance assisted them in expanding their knowledge and revising their writing, even though they received minimal feedback from teachers.

Furthermore, 28 participants indicated that transitioning from pen and paper to email enhanced their self-assurance. Additionally, they expressed a feeling of ‘liberation’ while utilizing email. As an illustration, five respondents appreciated the flexibility to access email at any moment without feeling obligated to complete assignments; furthermore, it allowed them to allocate more time to their writing. They believed that the absence of a time limit for completing writing assignments via email reduced their writing anxiety compared to the traditional method of writing

with a pen and paper in class. This discovery aligns with the results of several other studies (Maftoon et al., 2015; Alemi et al., 2015; Han & Keskin, 2016) that have demonstrated that employing a digital platform offers enhanced advantages in vocabulary acquisition and anxiety reduction due to the less demanding learning atmosphere.

A quantitative analysis of the findings presented in Section A confirms the students' favorable attitudes towards employing email to study vocabulary.

Due to the fact many of the questions in Section A remained unanswered, Section B of the survey contained open-ended inquiries. For example, it inquired about what the respondents thought of email-based English vocabulary learning, the advantages and disadvantages of email-based vocabulary learning, and the reasons and methods by which email assisted the learners in word acquisition. Hence, in Section B, open-ended queries were employed. The majority of the participants acknowledged and comprehended the benefits of utilizing email as a tool for acquiring English vocabulary through the composition of narratives. Additionally, they affirmed the significance of utilizing email as a tool for vocabulary acquisition due to prior challenges they had encountered in developing their vocabulary. They clarified that technology had served as a supplement to their instruction and maintained that they were dissatisfied with the conventional approaches to English teaching.

Based on the perspectives and experiences of most of the participants in the research, email serves as a beneficial tool for enhancing writing vocabulary acquisition and fostering self-assurance.

An additional benefit of email-based learning is the ability to archive work for future reference as an online repository of knowledge. According to the responses to the open-ended queries, 18 participants regarded the ability to save responses online as a favorable aspect of email usage. One participant elaborated that she utilized the six words provided each week to compose a narrative, which she then archived in her email. Through reading her instructor's feedback, which she further archived in her email, she successfully reviewed her responses from any location and at any time, thereby preventing the necessity to sift through printed materials that might have been misplaced. Another participant expressed the utility of consolidating answers and feedback into a single location for pre-test review, further stating that it enabled her to review the instructor's comments. In line with the results obtained in this study, Howard and Scott (2017) found that students experienced a sense of contentment when accessing and reviewing their written work from any location and at any time via online documents.

Expanding the educational environment to the digital realm facilitates the advancement of classroom-based education by allowing for study at any time and in any location. By utilizing email beyond the confines of the classroom, students can expand their educational experience by connecting to the internet, which is accessible at all times (Harris, 2009).

The present study examined the potential benefits of utilizing email as an online tool for vocabulary acquisition in EFL beyond the confines of the classroom. It has illustrated how the application of email as a form of online learning empowers students to confront challenging academic circumstances to acquire fresh insights and engage in reflective analysis (Sun & Chang, 2012). This assertion is consistent with the findings of Howard and Scott (2017), who argued that one advantage of using email to study vocabulary is that it allows students to monitor their progress from any location and at any time.

An additional benefit of utilizing email as a tool for acquiring English vocabulary is that it facilitates participants' adjustment to the email format. Thirty-eight participants regarded the

experience of composing a word narrative via email as beneficial. Before delivering their story, they successfully executed the following stages: strategy, composition, editing, and proofreading. The participants expressed the view that their proficiency in effectively applying the target items was enhanced through using email. However, they acknowledged that they had not adequately prepared in class for the six story-formatted items. "Lack of time," according to one participant, prompted her to write hastily without planning, composing, or even revising when required to do so in class. It is evident from these responses that the participants perceived specific benefits associated with composing a narrative via email, namely the ability to more meticulously contemplate the various phases of the writing process.

The discovery that email assisted the participants' adjustment to the procedure has significant implications for writing among university students in Saudi Arabia who are pursuing English as their major. These results are consistent with those of other scholars (Allagui 2014; Bouhnik and Deshen, 2014), who have provided evidence that a critical benefit of utilizing technology is that it aids participants in adapting to the writing process. From this perspective, it is evident that the integration of technology does indeed enhance the writing abilities of students.

In conclusion, while technology undeniably offers several advantages, there are certain disadvantages. The results of the open-ended survey indicate that four respondents encountered difficulties connecting to the internet in their residential areas for the initial two weeks of the treatment, attributable to inadequate connectivity. Hence one of the challenges identified in utilizing email is the necessity for a stable internet connection. A student who lacked access to the internet at home was compelled to seek an alternative location to finish her assignment and submit it via email to her instructor. Another participant clarified that she could not alter her response due to malfunctioning hardware. Undoubtedly, email usage necessitates a stable internet connection. Secondly, two respondents thought that email usage could negatively affect their handwriting. They recognized that while utilizing technology (email) was crucial and advantageous for English learning, the inability to write legibly could be detrimental in certain respects. These findings align with the conclusions drawn in other research (e.g., Wu, 2006; Campbell, 2003; Fageeh, 2011; Alsamadani, 2018; Aljumah, 2012) which has found that technology use is associated with specific disadvantages, such as unreliable internet connectivity, time wasted due to malfunctioning devices, concern regarding handwriting proficiency loss, and other technological complexities.

Through the analysis of the experiences and perspectives of the participants, this study highlights the value of email as a technologically enhanced approach to acquiring vocabulary in English. These results highlight how crucial it is to incorporate email into teaching strategies to encourage student enthusiasm, self-directed learning, and enhanced writing abilities.

Conclusion

This study has examined the perspectives and attitudes of students regarding using email as a tool for acquiring English vocabulary. The results overwhelmingly unveiled favorable attitudes and highlighted several advantages, including increased motivation, the ability to learn independently, and the convenience of storing and retrieving materials. Concerns about technical difficulties and a lack of handwriting practice were also acknowledged. In the context of the COVID-19 pandemic, this study fills a research void concerning English majors in Saudi universities by emphasizing the significance of comprehending the effects of technology on language acquisition. By filling this knowledge void and informing future research and pedagogical approaches, the results of the study provide a valuable contribution to the field of ELT, particularly in the areas of curriculum design and instructional practices.

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References

Absalom, M., & Pais Marden, M. (2004). Email communication and language learning at university: An Australian case study. *Computer Assisted Language Learning*, *17*(3-4), 403-440.

Al-Ahdal, A. A. M. H., & Alharbi, M. A. (2021). MALL in collaborative learning as a vocabulary-enhancing tool for EFL learners: A study across two Universities in Saudi Arabia. *SAGE* Open, *11*(1). 1-9. https://doi.org/10.1177/2158244021999062

Al-Zahrani, N. O. A., & Rajab, H. (2017). Attitudes and Perceptions of Saudi EFL Teachers in Implementing Kingdom of Saudi Arabia's Vision 2030. *International Journal of English Language Education*, 5(1), 83-99. https://doi.org/10.5296/ijele.v5i1.10733

Alahmadi, A., Albaqami, S. E., & Foltz, A. (2023). Using technology-based vocabulary instruction inside and outside of the classroom. *Frontiers in Communication, 8,* 97. 1-11. https://doi.org/10.3389/fcomm.2023.1162219

Albaqami, S. E., & Alzahrani, D. (2022). Transition to Online EFL Teaching in Saudi Arabian Universities during the COVID-19 Outbreak. *Arab World English Journal (AWEJ) 2nd Special Issue on Covid 19 Challenges* (2) 216-232. DOI: https://dx.doi.org/10.24093/awej/covid2.14

Alemi, M., Meghdari, A. and Ghazisaedy, M. (2015). The impact of social robotics on L2 learners' anxiety and attitude in English vocabulary acquisition, *International Journal of Social Robotics*, *7* (4), 523-535. https://doi.org/10.1007/s12369-015-0286-y

Alhowail, A. M., & Albaqami, S. E. (2024). Evaluation of the Critical Thinking Skills of Secondary School Students in Saudi Arabia. *Problems of Education in the 21st Century, 82*(1), 7-28. http://dx.doi.org/10.33225/pec/24.82.07

Aljumah, F. H. (2012). Saudi learner perceptions and attitudes towards the use of blogs in teaching English writing course for EFL majors at Qassim University. *English Language Teaching*, *5*(1), 100-116. http://dx.doi.org/10.5539/elt.v5n1p100

Allagui, B. (2014) Writing through WhatsApp: an evaluation of students writing performance, *International Journal of Mobile Learning and Organisation, 8* (3-4), 216-231. https://doi.org/10.1504/IJMLO.2014.067022

Alrabai, F. (2016). Factors underlying low achievement of Saudi EFL learners. *International Journal of English Linguistics*, *6*(3), 21. https://doi.org/10.5539/ijel.v6n3p21

Alsamadani, H. A. (2018). The effectiveness of using online blogging for students' individual and group writing. *International Education Studies*, *11*(1), 44-51. https://doi.org/10.26803/ijlter.22.3.11

Andrew, M., Taylorson, J., Langille, D. J., Grange, A., & Williams, N. (2018). Student attitudes towards technology and their preferences for learning tools/devices at two universities in the UAE, *Journal of Information Technology Education: Research*, (17), 309-344. https://doi.org/10.28945/4111

Arnot, M., Schneider, C., Evans, M., Liu, Y., Welply, O., & Davies-Tutt, D. (2014). School approaches to the education of EAL students. *Language development, social integration and achievement.* Cambridge: The Bell Educational Trust Ltd.

Avci, H., & Adiguzel, T. (2017). A case study on mobile-blended collaborative learning in an English as a foreign language (EFL) context. *International Review of Research in Open and Distributed Learning*, *18*(7). 45-58 https://doi.org/10.19173/irrodl.v18i7.3261

Barhoumi, C., (2015). The Effectiveness of WhatsApp Mobile Learning Activities Guided by Activity Theory on Students' Knowledge Management, *Contemporary Educational Technology*, *6*(3), 221-238. https://doi.org/10.30935/cedtech/6151

Basterrechea, M., Mayo, M.D.P.G., & Leeser, M.J. (2014). Pushed output and noticing in a dictogloss: task implementation in the CLIL classroom. *Porta Linguarum: International Magazine for Teaching Forgien Langages*, (22), 7-22.

Bensalem, E. (2018). The Impact of WhatsApp on EFL students' Vocabulary Learning, *Arab World English Journal (AWEJ)*, 9(1), 23-38 https://dx.doi.org/10.2139/ssrn.3150707

Blake, R. J. (2000). Computer-mediated communication: A window on L2 Spanish interlanguage. *Language Learning & Technology*, *4*(1), 120-136.

Bouhnik, D., and Deshen, M. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students, *Journal of Information Technology Education: Research*, *13*(1), 217-231.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. https://psycnet.apa.org/doi/10.1191/1478088706qp063oa

Bryman, A. (2008). *Social research methods*. 3rd Edition, Oxford University Press., New York.

Campbell, A. P. (2003). Weblogs for use with ESL classes. *The Internet TESL Journal*, *9*(2), 33-35.

Chalak, A., Rasekh, Z.E. & Rasekh, A.E. (2010). Communication Strategies and Topics in E-mail Interactions between Iranian EFL Students and Their Instructors, *International Journal of Language Studies*, *4*(4), 373-391

Chun, D. M., Smith, B. R., Kern, R. (2016). Technology In Language Use, Language Teaching, and Language Learning. *The Modern Language Journal*, 1(100), 64-80. https://doi.org/10.1111/modl.12302

Cronbach, L.J. (1942). An analysis of techniques for diagnostic vocabulary testing. *The journal of educational research*, *36*(3), 206-217.

Daniels, H., Edwards, A., Engeström, Y., Gallagher, T., & Ludvigsen, S.R. (eds.). (2013). *Activity theory in practice: Promoting learning across boundaries and agencies*. Routledge.

De la Fuente, M. J. (2003). Is SLA interactionist theory relevant to CALL? A study on the effects of computer-mediated interaction in L2 vocabulary acquisition, Computer *Assisted Language Learning*, 16 (1), 47-81. https://doi.org/10.1076/call.16.1.47.15526

Derakhshan, A., & Hasanabbasi, S. (2015). Social networks for language learning. *Theory and Practice in Language Studies*, *5*(5), 1090-1095.

Fageeh, A. I. (2011). EFL learners' use of blogging for developing writing skills and enhancing attitudes towards English learning: An exploratory study. *Journal of Language and Literature*, *2*(1), 31-48.

Fattah, S. F. E. S. A. (2015). The Effectiveness of Using WhatsApp Messenger as One of Mobile Learning Techniques to Develop Students' Writing Skills, *Journal of Education and Practice*, 6 (32), 115-127.

Feichas, H. (2010). Bridging the gap: Informal learning practices as a pedagogy of integration. *British Journal of Music Education*, *27*(1), 47-58.

Gonglewski, M., Meloni, C. and Brant, J. (2001). Using e-mail in foreign language teaching: Rationale and suggestions, *The Internet TESL Journal*, *7* (3), 1-12.

Harris, A. L., & Rea, A. (2009). Web 2.0 and virtual world technologies: A growing impact on IS education. *Journal of information systems education*, *20*(2), 137-144.

Howard, J., & Scott, A. (2017). Any time, any place, flexible pace: Technology-enhanced language learning in a teacher education programme. *Australian Journal of Teacher Education*, 42(6), 51-68.

Jou, Y. A., Chao, Y.C.J. and Wu, W.C.V. (2017). EFL Teachers' Voice for Incorporating Email Keypal Exchange in Taiwan Primary Classroom. In *Advanced Applied Informatics (IIAI-AAI), 2017 6th IIAI International Congress on*, 591-595.

Khan, T. J. (2016). Motivation for reading English as a second language (ESL) through the use of WhatsApp among graduate students of government college Township, Lahore (Pakistan). *International Journal of Pure and Applied Researches*, *1*(2), 220-231.

Kyndt, E., Dochy, F., & Nijs, H. (2009). Learning conditions for non-formal and informal workplace learning. *Journal of Workplace Learning*, *21*(5), 369-383. DOI:10.1108/13665620910966785

Lauricella, S., & Kay, R. (2013). Exploring the use of text and instant messaging in higher education classrooms. *Research in Learning Technology*, *21*(1). 1-17. https://doi.org/10.3402/rlt.v21i0.19061

Laurillard, D. (2010). Effective use of technology in teaching and learning in HE. In P. Peterson, E. Baker, & B.

Lopez P. K. (2020). The Impact of Oral Pushed Output on Intermediate Students' L2 Oral Production. *GIST Education and Learning Research Journal*, *20*, 85-108.

Maftoon, P., Hamidi, H., & Sarem, S. N. (2015). The effects of CALL on vocabulary learning: A case of Iranian intermediate EFL learners. BRAIN, *Broad Research in Artificial Intelligence and Neuroscience*, *3*(4), 19-30.

Marsick, V. J., & Watkins, K. E. (2001). Informal and incidental learning. *New directions for adult and continuing education*, *2001*(89), 25-34. https://doi.org/10.4324/9781315715926

Miyazoe, T., & Anderson, T. (2010). The interaction equivalency theorem. *Journal of Interactive Online Learning*, *9*(2), 94-104.

Mohammed, A. (2015). EFL effective factors: Anxiety and motivation and their effect on Saudi College student's achievement. *Arab World English Journal*, *6*(2), 201-218. https://doi.org/10.2139/ssrn.2834391

Nashruddin, N., Alam, F. A., & Tanasy, N. (2020). Perceptions of teacher and students on the Use of e-mail as a medium in distance learning. *Berumpun: Journal of Social, Politics, and Humanities*, *3*(2), 182-194

Nation, I. S. P. (2001). *Learning Vocabulary in another Language.* Cambridge: Cambridge University Press.

Nazari, B., & Niknejad, S., (2015). Providing Background Information in the Core of Computer Assisted Instruction. *Turkish Online Journal of Distance Education*, *16*(1), ~~pp.~~193-211.

Nomass, B. B. (2013). The impact of using technology in teaching English as a second language, *English Language and Literature Studies, 3* (1), 111-116.
Pennington, M.C. (2013). Electronic media in second language writing: An overview of tools and research findings. In *New perspectives on CALL for second language classrooms,* 81-104.
Pilar, R.A. Jorge, A., & Cristina, C. (2013). The use of current mobile learning applications in EFL, *Procedia-Social and Behavioural Sciences*, *103*, 1189-1196.
Pirasteh, P. (2014). The effectiveness of computer-assisted language learning (CALL) on learning grammar by Iranian EFL learners, *Procedia-Social and Behavioural Sciences*, *98*, 1422-1427.
Rajab, H., & Al-Sadi, A. (2015). An empirical study of reading habits and interests of Saudi university EFL learners. *International Journal of Linguistics*, *7*(2), 1-17
Rambe, P., & Bere, A., (2013). Using mobile instant messaging to leverage learner participation and transform pedagogy at a South African University of Technology, *British Journal of Educational Technology*, 44 (4), 544-561.
Sacco, K., Falk, J. H., & Bell, J. (2014). Informal science education: Lifelong, life-wide, life-deep. *PLoS Biology*, *12*(11), 1-3
Şahin Kızıl, A. (2017). EFL learners in the digital age: An investigation into personal and educational digital engagement, *RELC Journal*, *48* (3), 373-388.
Schmitt, N. (2008). Instructed second language vocabulary learning. *Language Teaching Research*, *12*(3), 329–63.
Shadiev, R., Hwang, W.Y., Huang, Y.M., & Liu, T.Y. (2017). Cognitive diffusion model: Facilitating EFL learning in an authentic environment, *IEEE Transactions on Learning Technologies*, *10*(2), 168-181.
Stahl, S., Davis, R., Kim, D., Lowe, N., Carlson, R., Fountain, K., & Grady, M. (2010). 'Play it again: The master psychopharmacology program as an example of interval learning in bite-sized portions', *CNS Spectrums*, *15*(8), 491–504
Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development, *Input in second language acquisition*, *15*, 165-179.
Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough, *Canadian modern language review*, *50*(1), 158-64.
Traxler, J. (2009). Learning in a mobile age, *International Journal of Mobile and Blended Learning (IJMBL)*, 1(1), 1-12.
Ur Rahman, M. M., & Alhaisoni, E. (2013). Teaching English in Saudi Arabia: Prospects and challenges
Vygotsky, L. (1978). Interaction between learning and development, *Readings on the development of children*, *23*(3), 34-41.
Wagner, E. D. & Wilson, P. (2005). Disconnected: Mobile learning responds to people who need access to information when out in the field or on the job, *T AND D, 59* (12), 40-43.
Ware, P. D., & Warschauer, M. (2006). Electronic feedback and second language writing. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues* (pp.105-122). Cambridge: Cambridge University Press.
Webb, S., & Chang, A. C. (2012). Vocabulary learning through assisted and unassisted repeated reading. *Canadian Modern Language Review*, *68*(3), 267-290.

Wu, C. (2006). Blogs in TEFL: A new promising vehicle. *Online Submission, 3*(5), 69-73.

Yao, X. (2011). Enhancing classroom education with instant messaging tools. *International Conference on Internet Computing and Information Services,* (pp. 1-6). IEEE. doi: 10.1109/ICICIS.2011.27,

Zimmerman, B.J. (2013) *Theories of Self-Regulated Learning and Academic Achievement: An Overview and Analysis.* Available at: https://www.taylorfrancis.com/chapters/edit/10.4324/9781410601032-1/theories-self-regulated-learning-academic-achievement-overview-analysis-barry-zimmerman