

Usage of Grammatical Cohesive Devices in Paragraph Writing among Foundation-Year Medical Students at a University in Saudi Arabia

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Abstract

Before entering a medical college, Saudi pre-medical freshmen study a Foundation-Year English language course for their English language enhancement. Writing is one of the language skills taught in English language courses at the Foundation-Year level. This study investigates Foundation-Year medical students' difficulties using cohesive grammatical devices for paragraph writing. The study attaches considerable significance to exploring the pre-medical freshmen's problems using cohesive grammatical devices while writing paragraphs in English. The sample of sixty-seven student-written paragraphs was chosen randomly from the Foundation-Year medical students. The paragraphs were analyzed to determine students' difficulties using cohesive grammatical devices. A qualitative research approach was carried out, and Halliday and Hasan's (1976) framework was adopted for analyzing cohesive devices, i.e., reference, conjunction, ellipsis, and substitution. The findings showed that Saudi pre-medical students at the Foundation-Year level could not use cohesive grammatical devices effectively. The study recommended a need to introduce an appropriate writing skill module in the Foundation-Year English courses and improve the teaching strategies to overcome the students' deficiencies in writing paragraphs.

Keywords: Coherence, Cohesion, Cohesive devices, Conjunction, References, Ellipsis, Substitution, paragraph writing

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Introduction

According to Halliday and Hasan (1976), the notion of '*cohesion*' is associated with the meaning or interpretation conveyed in a text. A perception of cohesion is developed when the meaning of some elements in the verbal expression in speech or writing depends on that of another. Halliday and Hasan's interpretation of '*cohesion*' is referred to here with the term 'cohesive ties' in which linguistic elements are tied together to depend on each other to convey a whole meaning of discourse. The concept of tying elements together gives a sense of purpose, makes it possible to analyze any text in terms of its cohesive features, and allows a reader to understand its patterns and style. Halliday and Hasan (1976) and other experts classify cohesive ties into grammatical and lexical cohesion. Understanding these cohesive devices for students of English as a second or foreign language help 'decoding' the meaning of discourse.

Salkie (1995) stated that cohesion in a paragraph works as a glue to unite the parts of sentences. The correct placement of different parts of linguistic features, known as cohesive devices, can create cohesion in paragraph writing. The cohesive devices such as reference (exophora, endophora), substitution, ellipsis, connectives (additive, adversative, causal & temporal), and lexical cohesion (synonyms, antonyms, repetition & subordinates) can make a paragraph effectively meaningful and easily understandable, which is known as coherence. Several researchers, such as Gersbacher, Varner, and Faust (1990), described that correctly using cohesive devices causes increased cohesion in making a paragraph coherent or comprehensible.

Writing is a time-consuming and challenging activity, especially for L2 learners. There are many reasons for Saudi students' poor writing, such as transfer from L1 to L2, social constraints in which they do not find an appropriate environment to use written English outside of their classroom, and an education system in which learning the English language is not given much importance. Nunan (1999) explains that composing a coherent piece of writing is a great challenge, particularly in learning a second language.

The writing skill embeds many other writing-related skills like grammar, spelling, and punctuation. Students need to achieve appropriate competency to be proficient in writing. Moreover, considerable practice is required to gain skilfulness in writing. Van Schalkwyk and van der Walt (2009) reveal demotivation of the students' preparedness at various levels. They both argued that students faced great difficulty in writing, including the correct use of grammar, spelling, coherence, and cohesion in writing a paragraph.

Ahmed (2010) argues by referring to Zheng's (1999) study that EFL teachers and learners experience specific difficulties in teaching and learning the skill of writing because many teachers of English have realized that acquiring the writing skill seems to be more laborious and demanding than developing the other language skills.

Considering the importance of cohesive grammatical ties for paragraph writing and embedded difficulties faced by Saudi pre-medical students at the foundation level, this study aims to investigate students' problems in using cohesive grammatical devices for paragraph writing.

This study investigates the Saudi Foundation-Year medical students' actual level of using cohesive grammatical devices in their paragraph writing. The cohesion and coherence of writing a paragraph, in terms of using 'reference,' conjunction, ellipsis, and substitution, will be analyzed in this study. Consequently, the study will recommend adopting necessary measures for further improvement in the Foundation year medical students' paragraph writing.

Writing is complex, and writing with cohesion and coherence is increasingly difficult. It helps instructors understand students' level of language learning because writing requires a combination of many sub-skills, true skillfulness in the writing system of any language, needs to master grammar, vocabulary, punctuation, pre-writing, writing the first draft, editing, and writing the final draft. Despite these skills, effective writing requires the skillfulness of the elements of cohesion and coherence.

For academic purposes, students need to write paragraphs in their writing exams. Therefore, they need to demonstrate writing proficiency. Compelling writing demands various kinds of skills to develop coherent paragraphs. In professional & academic requirements, scripts with cohesiveness get immense significance in all kinds of examinations. Ahmed (2010) explains that despite the various approaches to the teaching of writing, EFL writing is still a crucial area for teachers and students.

Due to the significance of coherent writing skills, several studies in the Saudi context have been conducted to investigate students' English writing problems and errors. However, this study focuses on exploring the Saudi pre-medical students' use of cohesive grammatical devices in writing paragraphs in English at the foundation level. The study will help to make recommendations to adapt effective teaching methods and design appropriate curricula for further improvement in the writing of coherent paragraphs.

There are three main objectives of the study.

1. To determine the grammatical devices Saudi pre-medical students use in their written paragraphs.
2. To determine the frequency of grammatical devices used correctly or incorrectly in the students' written paragraphs.
3. To find the primary problems faced by the students in writing cohesive paragraphs.

1. What types of cohesive grammatical devices are used by Saudi pre-medical students in their written discourse?
2. How frequently do the Saudi pre-medical students use cohesive grammatical devices correctly or incorrectly in their writing paragraphs?
3. What problems do the Saudi pre-medical students face in producing cohesive paragraphs?

Literature Review

Hogue (2008) defined a paragraph as a collection of relevant sentences about a single topic. There should be one topic or idea in each paragraph; however, the size of a paragraph varies from

one writer to another. The paragraphs divide a written text into appropriate parts or chunks to maintain the reader's interest in the content. Cook, Firestone, and Betts (2021) reported that the origin of the word 'paragraph' came from the Latin word '*paragraphos*,' which means a 'break in sense.' The term graph denotes 'writing' in the Latin language. Following are the parts and kinds of paragraphs with a brief description.

The first part of a paragraph is a topic sentence and serves as a preview of a forthcoming section. It indicates the theme of the paragraph. It attracts the readers' attention by persuading them to read the text. The second part of a paragraph provides descriptive detail to support the topic sentence. It is the essential part of a paragraph and contains precise information about the topic. The third part of a paragraph wraps up or ties back to the topic sentence. The concluding sentence serves as a reiteration of the topic or wraps up the paragraph with a more general theme.

Savege and Shafiei (2007) classified paragraphs into five categories: descriptive, example, process, opinion, and narrative. A descriptive paragraph conveys the message about an imaginary description. It prepares the reader to understand a textual detail related to the five human senses vision, smell, touch, feel and taste. The writer creates a picture of a person, place, or thing with words to captivate and engage the reader with the specific description given in a text.

An example or illustrative paragraph attracts readers for its engaging examples to explain a point. The paragraph begins with a topic sentence and is followed by an example to increase interest and vividness in the text. The transition words such as 'for example' or 'for instance' are commonly used in the paragraph. Mostly the illustrative style of writing gives narrative strength to a reader.

A process paragraph describes how to do something step by step to perform a process or task.

An opinion paragraph is a paragraph in which the writer gives their opinion to persuade the reader. The views expressed in the paragraph are supported with facts or reasons to make the reader agree with them. The expressions such as '*I believe*,' '*I think that*,' or '*according to me*' are usually used in the text to express the writer's opinion.

In a narrative paragraph, a story is narrated with its relevant introduction, giving necessary detail and a conclusion. The narrative paragraph is written according to the needs and interests of a particular audience. The transition words such as 'first,' 'later,' or 'then' give the reader a hint about how the event progressed.

Rehman (2013) stated that cohesion is an essential feature of a compelling piece of writing and connecting sentences together creates coherence in writing. The organization of the ideas into a unified whole enables readers to understand a text. Rehman (2013) referred to Cox, Shahnahan, and Sulzby's (1990) argument that cohesion helps a reader construct meaning from a textbook. Halliday and Hasan (1976) state that cohesion refers to the sense that is formed or achieved within a text. Cohesion is achieved when the interpretation of some elements in a text depends on each other. This dependency on the correct use of cohesive devices makes a text effectively interconnected and enhances the meaning of an overall discourse.

The pronouns and reference words are essential in a written and verbal discourse. They are used to describe something which has already been referred to. e.g., **they, them, he, which, this/these, that/those**. These words indicate connections or relations among the sentences and enhance the interpretation and clarity of discourse. The linking words and phrases are used to make lists, show the order in a process, give examples, generalize, show a result or consequence, summarise, and express an alternative. The essential linking words and phrases with their functions are given below.

Table 1. Linking words and phrases

Type	Function	Linking Words
Enumeration	To make a list	first of all, first, firstly, secondly, second, thirdly, third, finally, lastly, next, last but not least
Addition	To add	moreover furthermore, additionally, additionally, as well, what is more
Summation	To summarize	to sum up, to summarize, summarise, in summary, overall, inconclusion, to conclude, all in all
Opposition	To give an example	for instance, example
Result/ inference	To show consequence	thus, therefore, consequently, hence
Contrast	To show contrast	however, on the one hand on the other hand
Concession	To show concession	besides, though, nevertheless, nonetheless
Transition	To show transition	Meanwhile

Note 1. Apse, Vineta & Farneste, Monta. (2018). *Improving the Use of Linking Words in Tertiary Level Essays*, Published 2 May 2018, p 33-41

Almutairi (2017) described that when a word or a phrase is substituted for another in writing, it is called 'Substitution'. It can be nominal substitution such as 'same,' 'one,' and 'ones,' verbal substitution like 'do,' and a clausal substitution 'not,' 'so'. An example of nominal substitution is: *Which cupcake do you like? I'd like the chocolate one, please.* 'One' takes the place of the noun 'cupcake'. An example of verbal substitution is like *Jane plays tennis. All her family does.* The word 'does' replaces the verb 'plays'. The example of clausal substitution is: *Has everyone eaten already? I hope not.* The single item 'not' takes the place of the entire clause (everybody has eaten already). Another example of substitution is *the graph on the left shows average calorie intake by age, while the one on the right shows the daily exercise levels.* The word one can be used to avoid repetition of the word graph. If we have a plural noun, we need the word ones, e.g., the wealthiest countries compared to the poorest ones.

The ellipsis means omitting words, assuming that the meaning will be understood even after leaving them out.

e.g., *I've finished the essay, but not the report* is the same as *I've spent the essay, but I have not finished the report*.

The words 'I have and 'finished' have been left out as inferred from the first sentence.

Savage and Shafeil (2006) stated that defining a paragraph combines many sentences about a topic. Coherence in writing is required when the cohesive devices are presented in a clear, logical, and understandable order. Many researchers have discussed coherence and cohesion in their studies to trace the difficulties the ESL/EFL students experience while writing their paragraphs or essays.

Effective use of cohesive devices creates coherence in a paragraph. Enkvist (1990) states that coherence is achieved when syntax, semantics, and pragmatics follow an order. Many researchers like Witte and Faigley (1981); Connor (1984); Ferris (1994); Jin (2000); Reynolds (2001); Normant (2002); Ahmed (2010) explained precisely that paragraph coherence could depend on successfully placed cohesive devices, correlating with cohesion, and writing proficiency. Rehman (2013) explains that the incorrect and overuse of cohesive devices is the cause of incomprehensible and redundancy.

Many studies have investigated Saudi students' use of cohesive devices in writing. AL-Jarf (2001) surveyed to determine the characteristics of cohesive devices by the EFL students from King Saud University, Saudi Arabia. The findings explore that substitution was the most challenging form of cohesion, followed by reference and ellipsis by Saudi EFL students. The results have indicated that deficiency in the use of cohesion is, in fact, due to the students' substandard linguistic competence and lack of knowledge about cohesion rules.

Barzanji (2016) referred to the study of Rehman (2011), which confirmed that English is taught as a compulsory subject in Saudi Arabia. However, in some universities and schools, English has become the primary language of instruction, especially for science and technology. Also, achieving remarkable proficiency has become an essential requirement and qualification to get jobs in Saudi Arabia. However, despite all the needs, Rehman (2011) claimed that Saudi undergraduate students fail to acquire English proficiency. Consequently, developing writing skills in English poses significant challenges for many Saudi students. According to Al-Jarf (2001), teaching writing skill is one of the most challenging tasks for language teachers and learners in Saudi Arabia.

Aldera (2016) argued that when Arab EFL learners compose a paragraph, they write their sentences disorderly and confuse meaning. The outcome showed the learners' inefficiency in using correct language and the basic mechanics of writing. Moreover, the learners are unaware of a model of standard written English. Khalil (1989) investigated the usage of cohesive devices in the essay writing of Arab college students. The findings showed that students' writing was incoherent due to insufficient information related to the topic. The students overused lexical devices (reiteration) of the cohesive devices and underused other lexical and cohesive grammatical devices.

Masadeh (2019) claimed that Saudi undergraduate students' written paragraphs were not developed in cohesion and coherence. The problematic central area experienced by the students

was the low ability to use synonymous words or phrases. They use inaccurate conjunctions and transition words to connect sentences and paragraphs to convey a coherent relationship of wholeness. The study also discovered that the students' unawareness to split their sections in content relevance hindered them from producing coherent paragraphs.

From the brief literature review, it can be concluded that many researchers have concentrated on the presence or absence of cohesion devices in written discourse. However, none has investigated the foundation year pre-medical students' skills in cohesive grammatical devices used in writing paragraphs. Halliday and Hassan's (1976) framework of cohesive devices is divided into different types such as reference, substitution, ellipsis, conjunction, and lexical cohesion. This study has used this framework (excluding cohesive lexical devices) to describe the coherent devices used by the Saudi pre-medical students to know their skills about grammatical devices used to make their paragraphs cohesive and understandable to the readers.

Methodology

The study carries qualitative features of methodology as Denzin & Lincoln (2000) claim that in qualitative research, things are seen in their natural setting, and it is attempted to make sense of phenomena in terms of the interpretation or to mean people bring to them. It investigates writing deficiencies related to cohesion and coherence of pre-medical students studying at the foundation level. The cohesion and coherence of written paragraphs will be analyzed with an emphasis on conjunction/connectives, reference, ellipsis, and substitution for the natural coherence of written paragraphs.

Participants

The participants of this study are the foundation year medical students at King Khalid University, Saudi Arabia, who studied English in an intensive program at the foundation year level. A sample of sixty-seven students' written paragraphs was taken randomly from the students enrolled in the 2nd semester of the academic year 2022. It was assumed that the participant students put their maximum effort into achieving good marks and that their written paragraphs could represent their fundamental writing skills and knowledge. All students had similar educational backgrounds, qualifications, and socio-economic statuses.

Research Instruments

The instrument used by the researcher to collect the data was students' written paragraphs. The paragraph topics remained unannounced before conducting the exam. However, the students were taught how to write paragraphs during class lectures. The student's written paragraphs were collected after an exam because it was pre-assumed that the students mostly put their maximum level of effort to achieve good marks in their exams. It is considered that if the students were asked to write paragraphs only for the sake of research, they might not have taken it seriously. So, it can be believed that the students' sample of written paragraphs is an accurate representation of their writing skills. Sixty-seven students' written paragraphs were chosen to collect data on cohesive grammatical devices, e.g., conjunction/connectives, reference, ellipsis, and substitution. Halliday and Hassan's (1976) framework helped to investigate the elements of cohesive devices in the students' written paragraphs.

Data Analysis

Corder's (1974) steps for content analysis were brought into use for analyzing cohesive grammatical devices in students' written paragraphs. Accordingly, first, every word in a sentence of a written paragraph was examined precisely to determine the correct or incorrect use of cohesive grammatical devices. The number of cohesive grammatical devices used in the written paragraphs was counted and classified into different categories. After the categorization of students' used grammatical cohesive devices, a comparison was made to find the frequency of cohesive devices used correctly or incorrectly by the students. The findings have been given in the table below, and for further elaboration, the data has been interpreted via charts.

Findings

The following outcome is worth considering for the discussion and conclusion after analyzing the written paragraphs of the participants.

Table 1. *Foundation year medical students' use of conjunctions; additives in the written paragraphs*

<i>Conjunctions(Additives)</i>				
A		<i>Frequency of correctly used</i>	<i>Frequency of incorrectly used</i>	<i>Total</i>
1	<i>And</i>	226	24	250
2	<i>Also</i>	9	2	11
3	<i>Moreover</i>	-	-	-
4	<i>Furthermore</i>	-	-	-
5	<i>For instance</i>	-	-	-
6	<i>Likewise</i>	-	-	-
7	<i>In addition</i>	-	-	-
8	<i>Beside</i>	-	-	-
9	<i>Alternatively</i>	-	-	-
10	<i>That is</i>	4	-	4
11	<i>I mean</i>	-	-	-
12	<i>Similarly</i>	-	-	-
13	<i>In the same way</i>	-	-	-
14	<i>On the other hand</i>	-	-	-
15	<i>By contrast</i>	-	1	1
16	<i>Or</i>	-	2	2
17	<i>Such as</i>	-	-	-
18	<i>In other words</i>	-	-	-
19	<i>Then</i>	11	1	12
	TOTAL	250 = 89.28%	30 = 10.71%	280

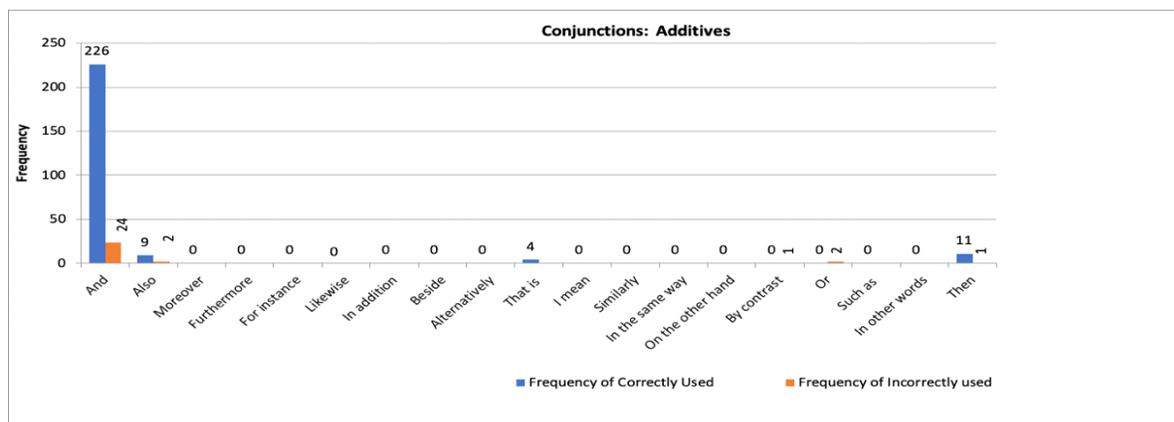


Figure 1. Conjunctions; additives

The foundation year medical students’ skill of using adversative conjunctions in paragraph writing is given in table 2.

Table 2. Foundation year medical students’ use of conjunctions; adversatives in the written paragraphs

Conjunctions (Adversative)				
B		Frequency of correctly used	Frequency of incorrectly used	Total
1	Yet	1	-	1
2	In fact	1	-	1
3	However	1	-	1
4	But	11	-	11
5	Though	-	-	-
6	Instead	-	-	-
	TOTAL	14 =100%	00.00%	14

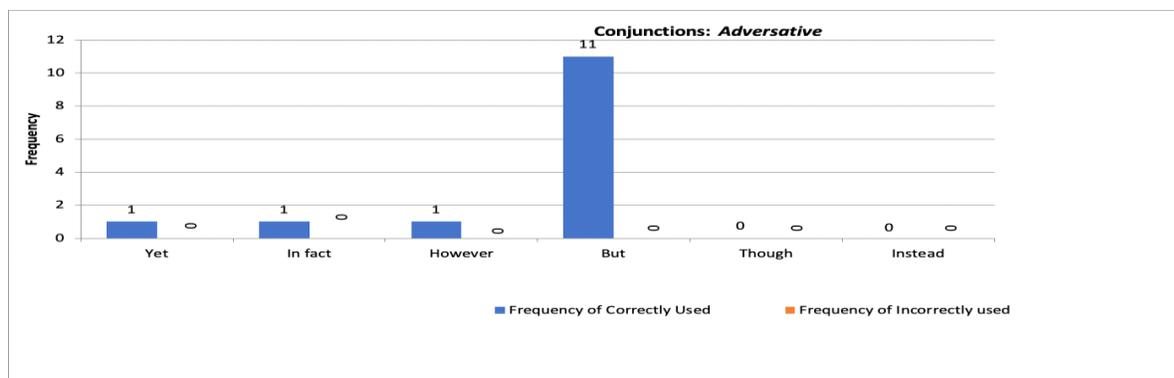


Figure2. Conjunctions; adversative

The foundation year medical students’ skill of using casual conjunctions in paragraph writing is given in table

Table 3. *Foundation year medical students’ use of conjunctions; casual in the written paragraphs*

Conjunctions (Causal)				
C				
1	<i>So</i>	2	-	2
2	<i>Therefore</i>	-	-	-
3	<i>As a result</i>	-	-	-
4	<i>Because</i>	14	-	14
5	<i>Then</i>	19	-	19
6	<i>Hence</i>	-	-	-
	TOTAL	35 =100%	00.00%	35

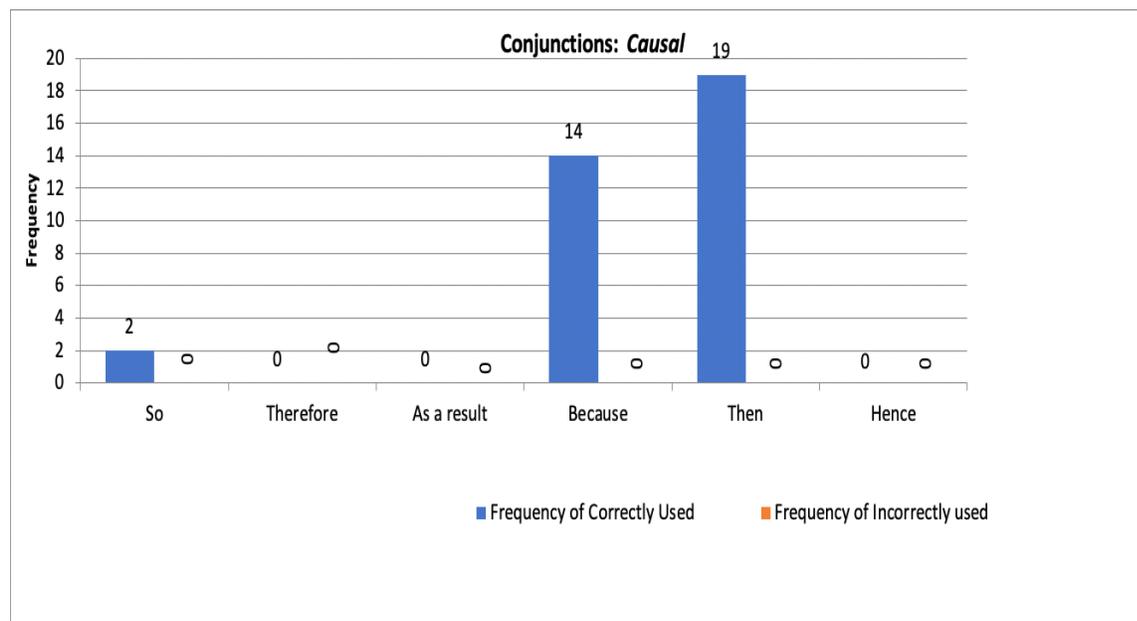


Figure 3. *Conjunctions; casual*

The foundation year medical students’ skill of using temporal conjunctions in paragraph writing is given in table 4.

Table 4. *Foundation year medical students' use of conjunctions; temporal in the written paragraphs*

<i>Conjunctions (temporal)</i>				
D				
1	<i>First</i>	2	-	2
2	<i>Second</i>	-	-	-
3	<i>Third</i>	-	-	-
4	<i>Then</i>	14	-	14
5	<i>Finally</i>	3	-	3
6	<i>In conclusion</i>	-	-	-
7	<i>Next</i>	10	-	10
8	<i>After that</i>	15	-	15
	TOTAL	44 =100%	00.00%	44

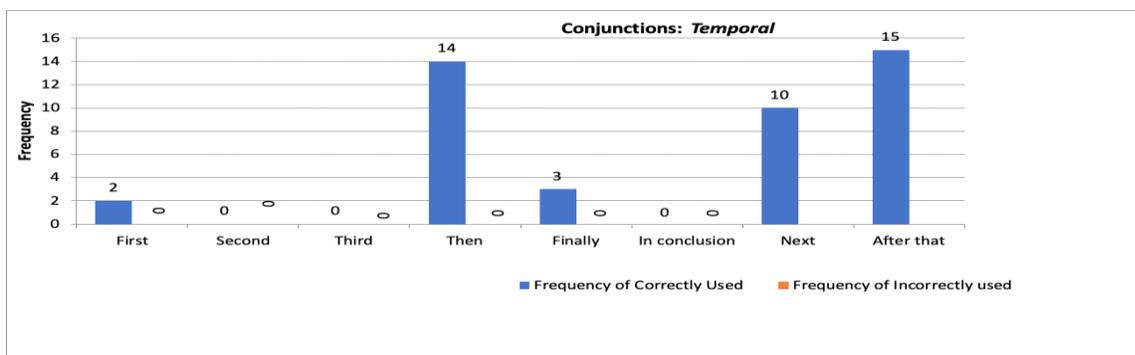


Figure4. *Conjunctions; temporal*

The foundation year medical students' skill of using personal reference in paragraph writing is given in table 5.

Table 5. *Foundation year medical students' use of reference; personal in the written paragraphs*

<i>Reference (Personal)</i>				
A		<i>Frequency of correctly used</i>	<i>Frequency of incorrectly used</i>	<i>Total</i>
1	<i>I</i>	821	1	
2	<i>Me/my</i>	451	-	
3	<i>He</i>	19	10	
4	<i>His / him</i>	1	-	
5	<i>She</i>	2	-	
6	<i>Her</i>	3	-	
7	<i>They</i>	5	-	

8	<i>Them</i>	7	-	
9	<i>Their</i>	-	-	
10	<i>You / your</i>	5	-	
11	<i>We</i>	-	1	
12	<i>Us</i>	1	1	
13	<i>Our</i>	1	-	
14	<i>It / its</i>	28	-	
	TOTAL	1343 =99.04%	13 =0.95%	1356

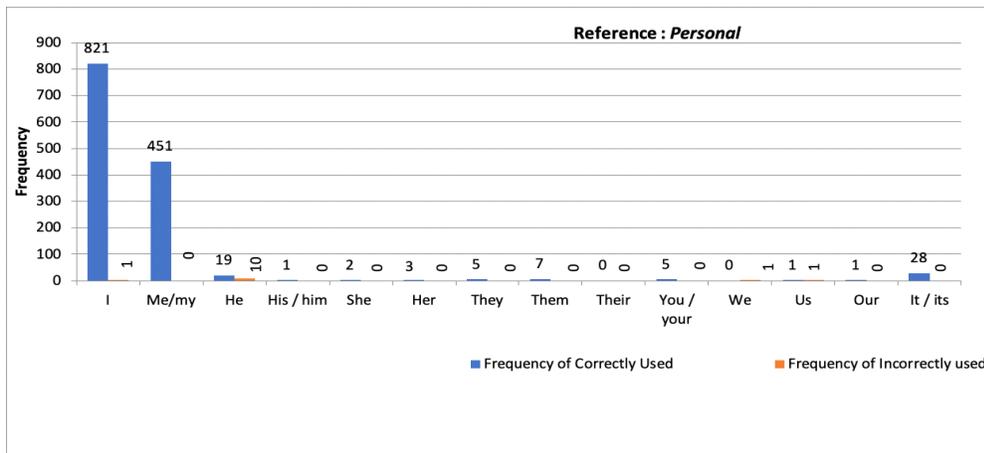


Figure 5. Reference; personal

The foundation year medical students’ skill of using demonstrative reference adversative conjunctions in paragraph writing is given in table 6.

Table 6. Foundation year medical students’ use of reference; demonstrative in the written paragraphs

2. Reference (Demonstrative)				
B		Frequency of correctly used	Frequency of incorrectly used	Total
1	<i>The</i>	81	4	
2	<i>This</i>	15	-	
3	<i>That</i>	5	1	
4	<i>These</i>	1	-	
5	<i>Those</i>	2	-	
6	<i>Which</i>	-	-	
7	<i>There</i>	42	1	
	TOTAL	146 =96.05%	6 = 3.94%	152

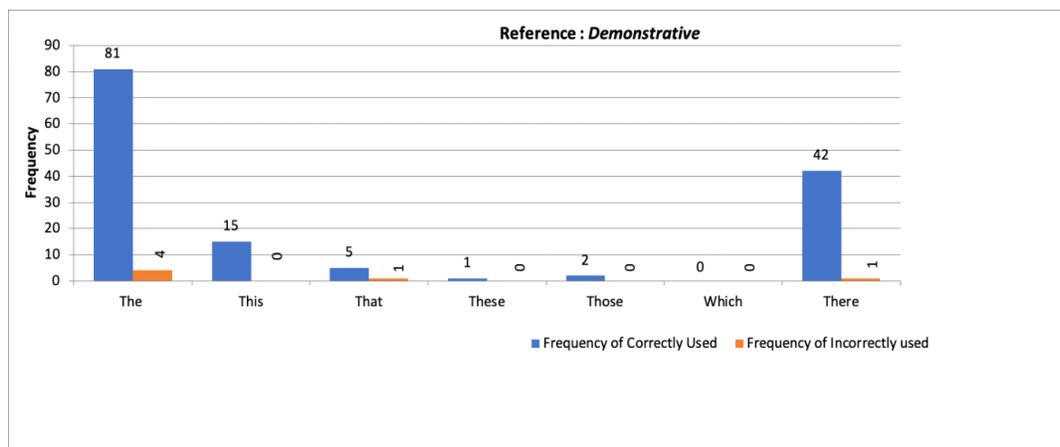


Figure 6. Reference; demonstrative

The foundation year medical students’ skill of using comparative reference in paragraph writing is given in table 7.

Table 7. Foundation year medical students’ use of reference; comparative in the written paragraphs

Reference (Comparative)			
C			
1	<i>As</i>	-	-
2	<i>So</i>	5	-
3	<i>Much</i>	6	-
4	<i>More</i>	1	-
5	<i>Less</i>	-	-
6	<i>Better</i>	-	-
7	<i>Like</i>	45	1
	TOTAL	57 =98.27%	1=1.72%
			58

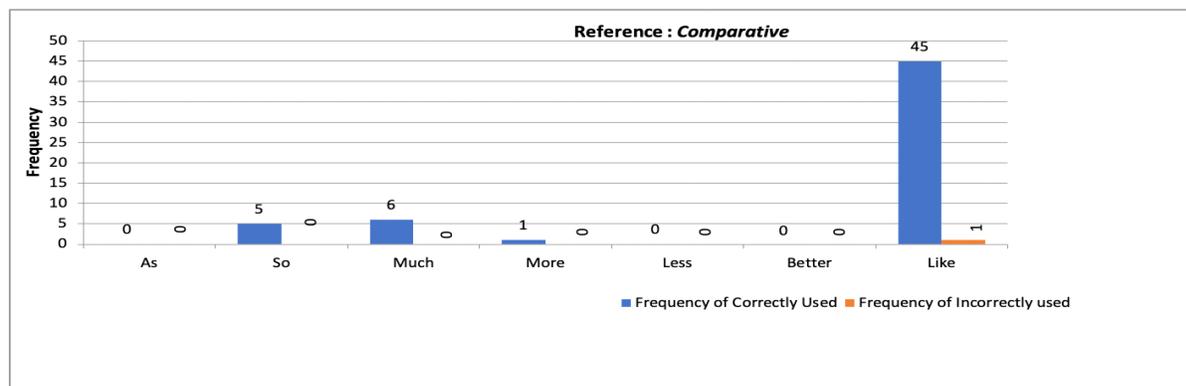


Figure 7. Reference; comparative

The foundation year medical students’ skill of using substitution in paragraph writing is given in table 8.

Table 8. *Foundation year medical students’ use of substitution in the written paragraphs*

3. Substitution				
		Frequency of correctly used	Frequency of incorrectly used	Total
A	Nominal	-	-	
B	Verbal	-	-	
C	Clausal	-	-	
	TOTAL	00.00%	00.00%	00.00

The foundation year medical students’ skill of using an ellipsis in paragraph writing is given in table 9.

Table 9. *Foundation year medical students’ use of ellipsis in the written paragraphs*

4. Ellipsis				
		Frequency of correctly used	Frequency of incorrectly used	Total
A	Nominal	6	-	
B	Verbal	1	-	
C	Clausal	-	-	
	TOTAL	7 =100%	00.00%	00.00

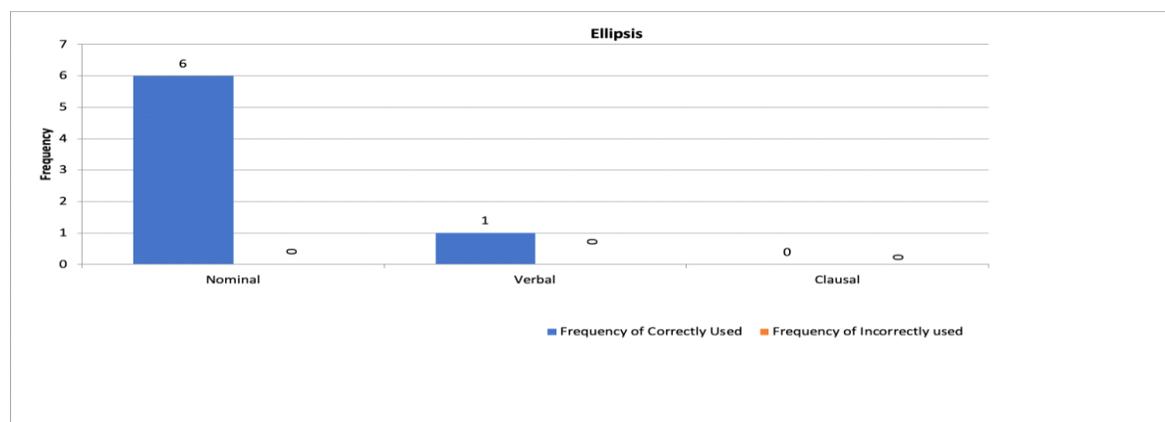


Figure 8. *Ellipsis*

After analyzing the foundation year medical students' written paragraphs, the study's findings have highlighted many aspects worth considering. Regarding the use of additive conjunctions, the students have shown their familiarity with additives such as 'And' 'Also,' 'That is,' and 'Then .' However, the students did not use other additives like 'Moreover,' 'Furthermore,' 'For instance,' 'Likewise,' 'In addition,' 'Besides,' 'Alternatively,' 'I mean,' 'Similarly,' 'In the same way,' 'On the other hand,' 'By contrast,' 'Or,' 'Such as,' and 'In other words, .' The students demonstrated familiarity with the adversative conjunctions such as "in fact", 'However,' 'But,' and 'Yet,' but did not bring 'Though' and 'Instead' in their use for writing paragraphs.

Similarly, the foundation year medical students used casual conjunctions such as 'so,' 'because,' and 'then,' showing their learning to use them. As for the casual conjunctions, i.e., 'therefore,' 'as a result,' and 'hence,' the students did not use them at all, indicating their unfamiliarity. Likewise, the students used 'temporal conjunctions such as 'first,' 'then,' 'finally,' 'next,' and 'after that' but did not use 'Second,' 'Third,' 'In the conclusion,' demonstrating the students' superficial level of learning. For the use of personal references, the foundation year medical students showed their familiarity with 'I,' 'Me/any,' 'He,' 'Has/Have,' 'She,' 'Her,' 'They,' 'Them,' 'You/Your', 'Us,' 'Our,' 'It is.' However, they did not use 'Their' and 'We.' The foundation year medical students did not use demonstrative reference, 'which,' but showed their familiarity with 'The,' 'This,' 'These,' 'Those,' and 'There.'

For the comparative references, the foundation year medical students revealed their learning to use 'So,' 'Much,' 'More,' and 'Like,' but did not use 'As,' 'Less,' and 'Better.' The foundation year medical students did not use substitution in their written paragraphs which ultimately indicates that they do not know using substitution in writing paragraphs. For the 'ellipsis,' the foundation year medical students used only the 'nominal' and 'verbal' ellipsis but did not use the 'clausal' ellipsis.

The study focused on finding the findings of the following questions.

Research Question 1(RQ.1)

In response to the first question of the study, 'What types of cohesive grammatical devices are used by the Saudi foundation year medical students in their written discourse?' the acquired empirical data revealed that the foundation year medical students used 'and,' 'also,' 'that is' and 'then' as additive conjunctions. The students used 'yet,' 'in fact,' 'however,' and 'but' as adversative conjunctions. During the foundation year, medical students used 'so,' 'because,' and 'then' as casual conjunctions. For temporal conjunctions the students used 'first', 'then', 'finally', 'next', and 'after that'.

The empirical data showed the foundation year medical students' familiarity to use personal references such as 'I', 'Me/any', 'he', 'his/him', 'she', 'her', 'they', 'them', 'you/your', 'us', 'our', 'it/its'. For demonstrative references, the empirical data revealed the students' awareness of the use of 'the,' 'this,' 'that,' 'these,' 'those,' and 'there.'

For comparative references, 'so,' 'much,' and 'more' was used by the foundation year medical students showing their familiarity/ knowledge only.

The empirical data indicated that the foundation year medical students did not use nominal, verbal, and clausal substitutions, highlighting that the students did not know how to use substitutions. However, the students used nominal & verbal ellipsis in their written paragraphs but did not use a clausal ellipsis.

Research Question 2(RQ.2)

In response to the second question of the study, 'How frequently do the Saudi Pre-Clinical medical students use cohesive grammatical devices correctly or incorrectly in their writing paragraphs?', the obtained empirical data showed that the foundation year medical students used 89.28 % additive conjunctions correctly and 10.71% incorrectly. However, the students used four additive conjunctions in their written paragraphs only. It showed that the students do not know/are familiar with using the maximum number of additive conjunctions.

In the foundation year, medical students' usage of adversative conjunctions reached 100 %, while incorrect usage remained at 0.0 %. Similarly, the ratio of correctly used causal & temporal is 100%, and incorrect usage of both the conjunctions remained 0.0 %.

Likewise, the correct usage of personal references is 99.05 %, and incorrect usage is 0.95%. The participants' correctly used demonstrative reference is 96.05%, and the incorrect usage is 3.94%. Similarly, the correctly used comparative reference by the participants is 98.27 %, and the incorrectly used is 1.72%.

During the foundation year, medical students did not use substitution at all. Therefore, the ratio of percentage for both correctly & incorrectly used substitution is 0.0%. However, the correct usage of ellipsis is 100 %, but the students did not use a clausal ellipsis at all, and the percentage of both correctly and incorrectly usage of ellipsis remained 0.0%.

Research Question 3(RQ.3)

In response to the third question of the study, 'What problems do the Saudi pre-medical students face in producing cohesive paragraphs?' The acquired empirical data indicated that the foundation year medical students faced problems using all the cohesive devices. For instance, in additive conjunctions, the foundation year medical students did not use 'Likewise,' 'In addition,' 'Besides,' 'Alternatively,' 'I mean,' 'Similarly,' 'In the same way,' 'On the other hand,' 'Such as,' 'In other words' in the written paragraphs which consequently showed that the participants have no knowledge or familiarity with the usage of additive conjunctions.

Similarly, the foundation year medical students have not used adversatives such as 'though' and 'instead' at all, indicating the foundation year medical students' deficiency in using all types of adversative conjunctions. For causal conjunctions, the foundation year medical students did not use 'therefore,' 'as a result,' and 'hence' in the written paragraphs revealing that the participants are unfamiliar with using all kinds of causal conjunctions. Likewise, the foundation year medical students did not use 'second,' 'third,' and 'in conclusion' as temporal conjunctions, which ultimately hints that the students have no familiarity or knowledge about them.

For personal reference, the foundation year medical students are comparatively better in using the personal reference, except the students did not use 'their' only. Likewise, for demonstrative reference, the foundation year medical students did not use 'which' at all, indicating the students' lack of knowledge. Also, during the foundation year, medical students did not use 'as,' 'less,' and 'better' as the comparative reference, which helps infer that the students were unaware of their usage. The data showed that the foundation year medical students did not use 'substitutes' at all. However, for ellipsis, the students did not use a clausal ellipsis at all. In

summary, the cohesive devices the foundation year medical students did not use help infer that the students face problems in their usage.

Discussion

The findings of this study indicated that the Saudi pre-medical students at the foundation year level were experiencing difficulties in producing cohesive and coherent paragraphs. The findings of this study are in line with the studies conducted by Rehman(2011), ALdera (2016), Al Mutairi (2017),Othman(2019),Masadeh(2019), and Al Zubairy (2020) that Saudi EFL students could not show their skilfulness in using grammatical cohesive devices. However, they showed little familiarity with '*references*' and '*conjunctions*' just using a limited number such as '*And*' '*Also*' '*That is*' and '*Then*' as (*Additive conjunctions*), '*yet*' '*in fact*' '*however*' and '*but*' as (*Adversative conjunction*), '*so*' '*because*' and '*then*' as (*Causal conjunctions*), & '*first*' '*then*' '*finally*' '*next*' and '*after that*' as (*Temporal conjunction*). The students could not use other types of conjunctions at all.

Regarding the use of references, students have a reasonable awareness about using personal, demonstrative, and comparative references. Only very few references, such as '*their*,' '*we*' (Personal reference), '*which*' (Demonstrative reference), and '*as*' '*less*' & '*better*' (Comparative references), could not be used at all.

The findings showed that students are the least familiar with using ellipsis and substitution to make their paragraphs cohesive and coherent. The results also showed that the correct use of cohesive grammatical devices dominates the percentage of incorrectly used grammatical cohesive devices.

The study's outcome revealed that the students face difficulties using all grammatical cohesive devices. The students can merely use specific grammatical devices, which ultimately does not make their written paragraphs coherent and compelling.

Limitations of the Study

The study focused on male pre-medical students' writing paragraphs at a Saudi university's foundation year-level course. Considering social constraints in Saudi Arabia, the female students' written paragraphs were excluded from the scope of the study. The research sample carried 67 pre-medical students' written paragraphs only. However, a study with a large selection from other disciplines is also recommended in the future.

Conclusion

This study investigates foundation year medical students' difficulties using grammatical cohesive devices for paragraph writing. It is concluded that Saudi foundation year medical students struggle to produce coherent paragraphs. It has been evident through the empirical findings that the foundation year medical students' skills for using grammatical cohesive devices need to improve further. The conclusion aligns with Khalil's (1989) and Ahmed (2010) studies, in which investigations have been made to analyze EFL students' proficiencies in using cohesive devices.

The present study made it clear that the educational approaches have not helped the foundation year medical students improve their paragraph writing skills, so further studies must be conducted to enhance the students' learning of cohesive devices.

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