

The Impact of Google Classroom on Students' Writing Skills in Arabic and English Classrooms: A Comparison Study

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Abstract—This study investigated the effect of Google Classroom in improving writing skills among students in both Arabic and English departments at Umm Al-Qura University in Saudi Arabia. The researchers randomly selected 84 male students to participate and employed a quasi-experimental, integrating Google Classroom into all writing teaching activities for the experimental group over nine weeks. Data collection involved administering pretest and posttest English writing tests to 40 English language students and pretest and posttest Arabic writing tests to 44 Arab language students. The results indicate statistically significant differences ($p = 0.000$ ($p < 0.05$)) between the mean scores of students studying Arabic and English writing via the Google Classroom environment and those taught the same lessons through the traditional lecture methods in the post-test, favoring experimental groups. Moreover, this study indicates that Arabic and English writing learners commit similar errors in their writing samples but with differing frequencies and percentages. English writing learners commit writing errors such as in spelling (28.58%), punctuation (10.63%), sentence structure (7.41%), fluency (7.90%), use of inappropriate tenses (6.05%), paragraph coherence (6.93%), paragraph unity (4.59%), linking words (5.37%), accuracy (6.73%), inconsistent point of view (5.37%), unrelated meaning (4.39%), and finally articles (6.05%). Arabic writing learners similarly make writing errors in spelling (21.79%), punctuation (12.33%), sentence structure (7.86%), fluency (7.65%), use of inappropriate tenses (7.54%), paragraph coherence (7.00%), paragraph unity (7.01%), linking words (6.91%), accuracy (6.91%), inconsistent point of view (6.06%), unrelated meaning (5.42%), and finally articles (3.40%).

Index Terms—Google Classroom, writing skills, Arabic Classroom, English Classroom

I. INTRODUCTION

Since the 1960s, Language studies have incorporated computers. Today, students extensively rely on smartphones due to their ability to perform a wider range of tasks compared to laptops or PCs. Nowadays, youths are part of a digital generation deeply immersed in using smartphones, laptops, tablets, and e-readers, often because the internet and technology are pervasive in today's environment. The proliferation of electronics among children is contributing to their addiction to technology.

Google launched a technology-based learning platform in 2014, allowing the young, tech-obsessed generation to study using the devices on which they spend the majority of their waking and sleeping hours. As such, the issue of the young generation's technological dependence was resolved thanks to Google Classroom. Because it facilitates individualized, anytime, anywhere learning that resembles learning outside of the classroom, it has evolved into more than just an online learning platform. Google Classroom has grown to be one of the most frequently used teaching tools by lecturers and professors because it is also an app-based and web-friendly online learning platform.

Google Classroom has hosted over 30 million assignments contributed by professors and students, suggesting that this program is an engaging teaching-learning tool that may be implemented in our educational system (Iftakhar, 2016). Using Google Classroom for students to submit assignments and access information is also effective and appealing. This is because students can engage with the platform at any time and from any location, eliminating the need for in-person meetings with professors. Moreover, using Google Classroom has a positive effect on students' learning outcomes, motivation during lectures, and learning (Galura et al., 2023).

Ingenious uses for Google Classroom as a medium are possible. Islam and Ferdousi (2019) described possible projects and activities that might be included in Google Classroom to teach English's four skills. Instructors can request students to write something on any positive affects based on their personal experiences as practice for their English writing abilities, and they are required to post such writings in the Google Classroom assignment section so that only the instructor can view and read them. The instructor might provide the students with comments after they submit their essay. Giving them access to numerous fascinating English videos on Google Classroom, such as movie clips, reality programs, speeches, and documentaries, and asking them to write their own reviews of such materials is another method of encouraging them

to write using Google Classroom (Islam & Ferdousi, 2019). Therefore, the justification for the present study arises from the prospective benefits of exploring the impact of using Google Classroom in improving learners' writing skills in both Arabic and English. The findings of this study may be helpful to teachers, curriculum designers, and students. Teachers and curriculum designers may learn the systematic types and frequency of writing errors that learners make. As a result, individuals may concentrate on avoiding these mistakes when completing writing assignments for their chosen curricula and courses. Students would be aware of their mistakes when writing a work, which would help them avoid repeating the same mistakes. Using a useful tool like Google Classroom might assist students in developing their writing abilities in either the English or Arabic departments. It may offer an example of how to use Google Classroom to improve students' writing abilities.

II. RESEARCH QUESTIONS

To examine the effect of using Google Classroom in improving writing skills for learners in both Arabic and English departments, the current study's authors seek to answer the following questions:

- 1-What is the impact of Google Classroom on the students' writing skills in the English classroom in comparison to students' writing skills in the Arabic classroom?
- 2-What are the common types of errors in English writing classrooms?
- 3-What are the common types of errors in Arabic writing classrooms?

III. LITERATURE REVIEW

This section began with a comprehensive literature review of theoretical perspectives on using Google Classroom in language learning. The authors then investigate writing skills in Arabic and English.

A. *Theoretical Perspectives on Google Classroom*

Bower (2019) contended that incorporating technology-mediated tools in teaching and learning should be grounded in learning theories. Because this study centers on higher education, examining these theories will assist academic faculty in better understanding learners. Consequently, this will heighten academic staff's awareness of suitable learning processes for using Google Classroom and improve their proficiency in employing effective teaching methods for Arabic and English writing skills through Google Classroom.

The behaviorist theory aligns with the viewpoint that learning is an activity examined through observable indicators of over behaviors. It claims that predicting, controlling, and measuring an individual behavior is possible (Bower, 2019). Classical conditioning, a subset of behaviorism, revolves around the stimulus as an external condition and the overt behavior manifested in the response. Conversely, operant conditioning, another facet of behaviorism, directs attention to the outcomes of reactions and their capacity to induce alterations (Leahy et al., 2022). Teaching and learning strategies using Google Classroom can integrate elements derived from behaviorist theory, including assisting students in repeating tasks and engaging in sequenced practices until they master the learning tasks, keeping classrooms organized where Google Classroom helps streamline time management, facilitating assignment creation, enabling task distribution, and allowing for prompt feedback, as well as using various features (Google Docs, Google Slides, Google Forms, and YouTube) to reinforce students' responses (Iftakhar, 2016). Furthermore, learning through Google Classroom can incorporate aspects repurposed from behaviorist theory by engaging with instructional stimuli via discussion tools to foster increased student participation and asynchronous and synchronous class discussions among students, peers, and teachers, leading to operant conditioning outcomes (Umamah, 2019).

Whereas behaviorism concentrates solely on the learner's actions and behavior, the cognitivist learning theory emphasizes understanding how and why students learn, attributing the learning process to mental operations that individuals undergo while applying knowledge, skills, and abilities (Estes, 2022). Cognitivists argue that learning, extending beyond mere behavior modification proposed by behaviorists, involves acquiring knowledge and modifying or discarding constructs that no longer support one's evolving understanding of the world. They achieve this by emphasizing the learner-centered approach's importance in teaching and learning (Bower, 2019). Google Classroom exemplifies cognitivist theory, fostering a rich learning environment with guidance and instructions that facilitate student knowledge exploration (Sudarsana et al., 2019). Furthermore, cognitive implications, such as enhancing deep processing, facilitating knowledge transfer to long-term memory, and contextualizing learning, can be realized through the use of Google Classroom. This tool enables students to share multimedia representations, combining text, graphics, audio, and video, or engage in projects involving real-life information while learning or communicating with each other (Umamah, 2019).

The constructivist theory posits that learners construct their understanding through experience and socially negotiate the meaning of what they learn (Chuang, 2021). Google Classroom promotes a constructivist approach to learning by encouraging students to create their knowledge within experiential contexts actively; furthermore, teaching methods rooted in constructivism involve principles such as active learning, encouraging student collaboration and participation, as well as providing hands-on learning, all of which can be applied in the context of students using Google Classroom (Alotumi, 2022).

A learning environment can be constructed using Google Classroom, which is supported by constructivism (Feyzi Behnagh & Yasrebi, 2020; Ramadhani et al., 2019). In constructivist theory, the teacher's role is to facilitate activities that involve students in the linguistic and social practices associated with building discipline-specific knowledge and understanding. To practice constructivist learning pedagogy involving the use of Google Classroom, teachers should have the following principles: a) identify the issue under discussion and the group's process for handling it; b) provide students with tools that enable them to discuss and understand the topic deeply; and c) support students to work together until they reach a consensus or develop a solution to the problem (Ramadhani et al., 2019). Students come together to discover their problem in class and share responsibility for solving it. Virtual courses are essential in addition to practical communication and collaboration. Therefore, the role of a teacher is to introduce the learning environment through collaborative Google Classroom tools such as Google Meet, Google Drive, Google Docs, and Google Calendar (Srikan et al., 2021).

Furthermore, research on using Google Classroom to support constructivist teaching suggests that Google Classroom is integrated with various Google services to help teachers create, upload, annotate, and share resources across devices. Teachers can assign tasks using Google Drive, and class members receive notifications on Google Classroom. Google Classroom integrates with all Google products that involve documents, slides, and spreadsheets (Sulisworo et al., 2020). In Google Classroom, constructionist pedagogy could be further enhanced because it could help teachers and students share knowledge and artifacts. Handheld devices, for example, will make it easier to take notes and collect multimedia data, including images, audio, and video (Sulisworo et al., 2020). This capability of capturing multimedia data can be applied in several meaningful ways and allows learners to reflect.

As a learning theory, connectivism is tailored to the digital era. It emphasizes that today's students are digital natives, having grown up immersed in technology (Utecht & Keller, 2019). Goldie (2016) advocated for the value of connectivism compared to other theories, stating that humans can generally recognize patterns and create connections between different phenomena. He argued that behavioral, cognitive, and constructivist theories are concerned with the learning process rather than the values of what is being learned. He also defined learning as creating links among subjects, fields, and concepts and as actionable knowledge outside ourselves within an organization or a database. Connectivism is often associated with the Google Classroom platform. Research suggests that Google Classroom tools, including Google Docs, and other Google products such as Google Drive and Google Meet, allow students to write comments, share knowledge, and create works (Utecht & Keller, 2019). Connectivism learning theory could be adopted when learning takes place inside and outside the classroom through Google Classroom, which offers communication between learners and teachers and between learners themselves (Constantinou, 2018).

B. Writing Skills in Arabic and English Classrooms

Of all the linguistic abilities, writing is the most important. Writing is a test of a writer's cognitive skills because it requires thinking ability, linguistic competence, and trained memory (Kellogg, 2001). Writing better paragraphs requires understanding writing ideas including subject sentences, supporting sentences, information, closing phrases, cohesiveness, linking words, organization, punctuation, and grammatical characteristics. Writing is a difficult task because, in addition to all of these other factors, a writer must repeatedly revise and examine what they have written. Writing paragraphs to meet course requirements is a challenging undertaking for Saudi Arabian EFL students. In addition to employing traditional techniques, students' lack of enthusiasm, a lack of practice time in class, and ignorance of the significance of English as an international language, rather than using technology in teaching, are the main causes of this challenge (Chatta, 2020).

Numerous researchers have documented pupils' difficulty writing in a second or foreign language (Abdulkareem, 2013; Ahmed, 2010; Shukri, 2014). Writing a thesis statement, forming subject sentences, developing ideas, establishing cohesiveness and coherence, using appropriate terminology, and following basic grammar rules are all challenging tasks. These challenges cannot be easily solved in a constrained amount of time in writing classes. The time allotted for writing lessons at the university level is limited, thus it is imperative to make the most use of ICT to assist students in developing their writing skills. Numerous researchers have examined the writing mistakes made by pupils, particularly Arab EFL students. The current study's authors chose nine research articles as the foundation of this review because they were among those whose writers concentrated on Saudi students' writing faults, which is essentially the topic of this research study. According to Alkodimi et al. (2021), the primary causes of poor writing abilities are typically a lack of English resources and ineffective teaching strategies. Additionally, the teachers believe that the learners' poor vocabulary, irregular sentences, and orthographic variances from their native tongues are obstacles to their ability to write successfully in English.

Shousha et al. (2020) found disparities in writing mistakes between science and arts students and linked writing challenges to students' educational backgrounds, parental support, language proficiency, and teaching methods. In another study, Hafiz et al. (2018) looked at the most typical syntactic mistakes produced by students in the preparatory year at Jazan University in Saudi Arabia. They showed the most frequently troublesome areas to include copula (the lack of the verb), subject-verb agreement, tense, infinitive, articles, prepositions, and conjunctions. The lack of practice and interference from the native language, according to the researchers, caused these mistakes.

In the context of ESL, Alasfour (2018) looked at L1 transfer on Arabic students. She identified the mistakes and their causes using both CA and EA approaches. She conducted five student interviews and examined 50 papers, discovering that mistakes were made most frequently while forming relative sentences, using the passive voice, and using definite

articles. She also found that, despite L1 transfer mistakes being extremely prevalent, there was no difference in the incidence of transfer and non-transfer errors. Alkubaidi's (2019) research revealed that although students liked free writing, they lacked the fundamental skills needed to put simple sentences together.

IV. METHODOLOGY

A. Design

This study's authors investigated the effects of using Google Classroom in improving writing skills among learners at the Umm Al-Qura University. The researchers adopted the quantitative research method. They employed the quasi-experimental research design because it involved ongoing measurement, and the group experienced treatment within a period of time (Mills & Gay, 2016).

B. Participants and Sampling

Participants were students from four classes that comprised 84 students, 40 students from the English department and the other 44 students from the Arabic department at the Umm Al-Qura University. There were two classes from the English department randomly assigning different classes to one of two conditions, in which the researchers identified one class randomly and assigned it to the experimental group. Again, the researchers chose another class and assigned it to the control group.

In addition, they selected two classes from the Arabic department at random and assigned different classes to one of two conditions, in which they identified one class randomly and assigned it to the experimental group. They again chose another class and assigned it to the control group.

C. Instruments

The research instruments used in this study were the pretest and posttest writing skills achievement tests. The researchers conducted these tests to measure the students' writing skills either in the English department or the Arabic department based on the writing course that had been arranged by the university. The students were familiar with these tests because they had previously gone through the test forms. Moreover, the tests were based on the topics the students had to study in the course.

D. Data Collection Procedures

The researchers conducted this study in the second semester of 2022 over 9 weeks. They used the first week to train the English and Arabic teachers in how to implement Google Classroom. Then the teachers trained their students in the experimental classes only, whereas the students and the teachers in the control condition had not trained in this and continued using the traditional learning method. In the second week, the researchers gave all students in English and Arabic classes the writing skills pretest. They used the next 6 weeks to execute the Google Classroom lessons. The last week was for administering the posttest.

In the writing test, the researchers asked all students (English students and Arabic students) to write an essay about "sports in Saudi Arabia." Afterward, they received their posttest on the same topic to evaluate their progress. The researchers asked four volunteer English teachers to correct the English students' exam and revise each paper three times to give them the correct score. Furthermore, they asked four volunteer Arabic teachers to correct the Arabic students' exam and revise each paper three times to give them the correct score.

E. Data Analysis

The present study's authors aimed to investigate the effects of using Google Classroom in improving writing skills among learners in both the Arabic and English departments at Umm Al-Qura University. They also aimed to explore the types of writing errors among the learners in both languages. Therefore, they first collected the pre-test and post-test scores for both Arabic and English learners and analyzed them using SPSS. This analysis involved employing descriptive statistics such as frequencies and percentages, means and standard deviations, and inferential statistics, including t-tests, to examine the differences between the control and experimental groups.

At the same time, the researchers conducted an analysis based on classification as proposed by Alamargot and Chanquoy (2001) on paragraphs obtained from English and Arabic samples. The classification comprises:

1. Spelling errors: This classification focuses on orthography errors, which are often characterized by written paragraphs and related to the paragraph level.
2. Paragraph unity errors: This is concerned with errors that often occur due to failure to provide substantive explanation of a controlling topic. They could also result from a topic statement in argumentative writing and failure to provide the correct information or the affiliated information necessary for explaining the topic.
3. Paragraph coherence errors: This classification aims to deal with errors due to a lack of effective structure of thoughts in a paragraph and an essential connection between missing ideas.
4. Inconsistency in point of view errors: This type highlights errors resulting from improper shifts in person, number, or tense in sentences found in a paragraph.
5. Punctuation errors: This identifies errors related to capitalization as well as punctuation.

6. Grammatical errors: This comprises errors with verbs and adjectives, subject–verb agreement, agreement of nouns, articles, gender, and number, as well as the agreement of nouns.

V. RESULTS

In this part of the study, the authors present the results according to the raised questions. The first research question was: What is the impact of Google Classroom on students' writing skills in the English classroom in comparison to students' writing skills in the Arabic classroom?

The researchers verified the equality of the experimental and control groups on the test before implementing the program (Google Classroom). They used the t-test two independent samples and display the result in the following Table 1.

TABLE 1
MEANS, STANDARD DEVIATIONS, AND T-VALUE TO TEST THE DIFFERENCES BETWEEN THE CONTROL AND EXPERIMENTAL GROUPS ON THE PRETEST

Test	Group	N	Mean	Std. Deviation	T	df	Sig. (2-Tailed)
English Classroom	Control	21	13.087	4.3684	-.113-	44	.911
	Experimental	19	13.217	3.4106			
Arabic Classroom	Control	23	15.39	6.604	-.658-	44	.514
	Experimental	21	16.48	4.378			

According to Table 1, there is no difference that is significant statistically $p = .911$ ($p > 0.05$) in relation to the mean scores of EFL learners who learned English through a Google Classroom learning environment (experimental group) compared to students who learned English in a normal classroom setup (control group) in the pretest.

Further, the data from Table 1 also suggest that statistically, there is no significant difference $p = .514$ ($p > 0.05$) in the mean scores of the Arabic language students who studied the language via Google Classroom (experimental group) compared to the mean scores of students who studied Arabic in a normal classroom environment (control group) in the pretest.

TABLE 2
MEANS, STANDARD DEVIATIONS, AND T-VALUE TO TEST THE DIFFERENCES BETWEEN THE CONTROL AND EXPERIMENTAL GROUPS ON THE POSTTEST

Test	Group	N	Mean	Std. Deviation	t	df	Sig. (2-Tailed)
English Classroom	Control	21	13.826	4.4380	-13.173-	44	.000***
	Experimental	19	28.870	3.2094			
Arabic Classroom	Control	23	16.17	6.235	-4.272-	44	.000***
	Experimental	21	23.61	5.549			

Table 2 identifies the existence of some difference $p = 0.000$ ($p < 0.05$) between the mean scores of the EFL students who studied English through Google Classroom (experimental group) in comparison to those who studied the language within a normal classroom environment (control group). Therefore, this suggests the experimental group is favored by the posttest.

Additionally, Table 2 indicates some differences $p = 0.000$ ($p < 0.05$) that exist between the mean scores attained by EFL learners who studied Arabic through Google Classroom (experimental group) compared to those who studied the language in a normal classroom environment (control group). Therefore, this suggests the experimental group is favored by the posttest. In the following, Figure 1 shows English and Arabic classrooms' tests.

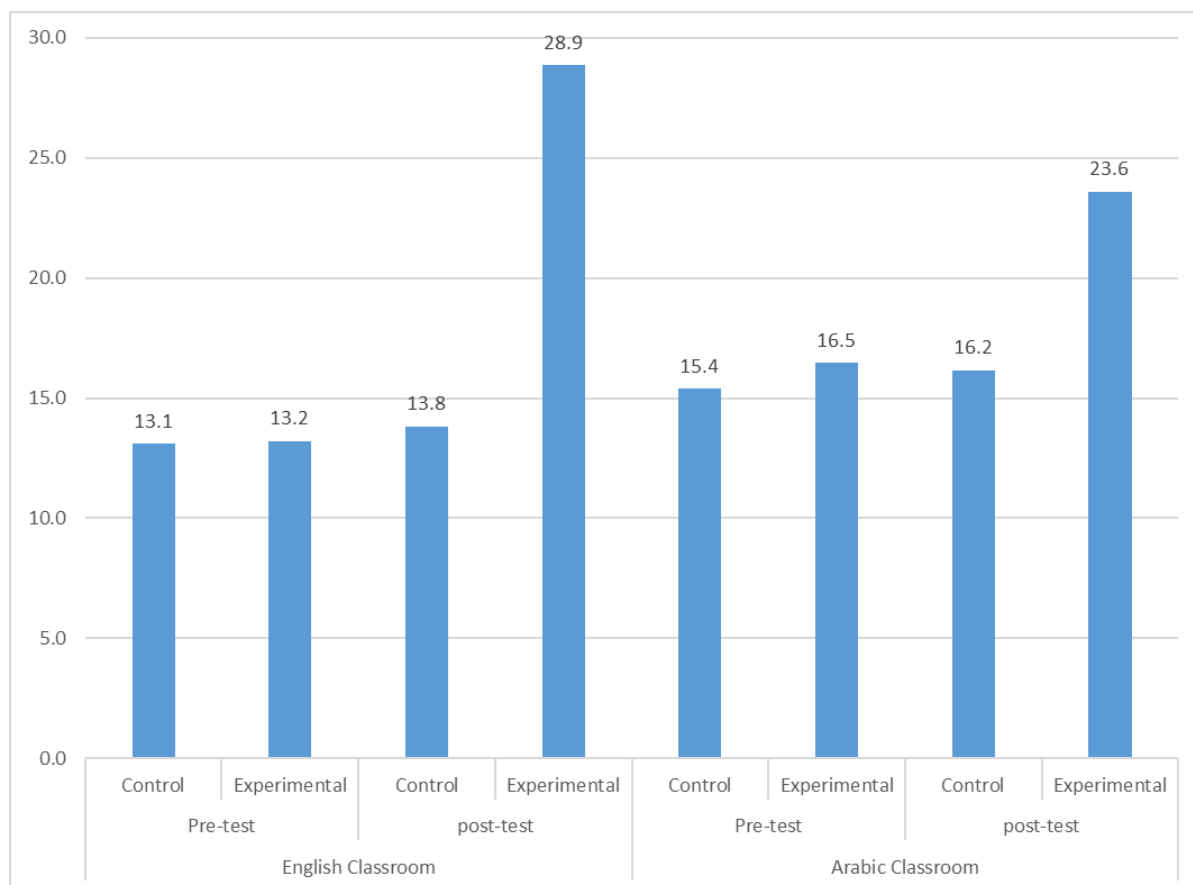


Figure 1. English and Arabic Classrooms' Tests

To answer the second research question, “What are the common types of errors in English writing classrooms?”, the researchers calculated frequencies and percentages and present the results in the following table.

TABLE 3
TYPES OF ERRORS IN ENGLISH WRITING CLASSROOM

Number	Type of Errors	Frequencies	Percentages
1	Paragraph coherence	71	6.93%
2	Use of appropriate tenses	62	6.05%
3	Sentence structure	76	7.41%
4	Linking words	55	5.37%
5	Unrelated meaning	45	4.39%
6	Accuracy	69	6.73%
7	Fluency	81	7.90%
8	Articles	62	6.05%
9	Spelling	293	28.58%
10	Inconsistent point of view	55	5.37%
11	Paragraph unity	47	4.59%
12	Punctuation	109	10.63%
	Total	1025	100%

As shown in Table 3, the errors made by English writing learners are in the following: spelling (28.58%), punctuation (10.63%), sentence structure (7.41%), fluency (7.90%), use of appropriate tenses (6.05%), paragraph coherence (6.93%), paragraph unity (4.59%), linking words (5.37%), accuracy (6.73%), inconsistent point of view (5.37%), unrelated meaning (4.39%), and finally articles (6.05%). Furthermore, it is clear from the table that English writing learners committed 1,025 errors in their paragraphs.

Generally, English writing learners committed many errors, especially at the sentence level. These errors include all grammatical, spelling, article, and punctuation errors.

To answer the third question, “What are the common types of errors in Arabic writing classrooms?” the researchers calculated frequencies and percentages as presented in the results in Table 4.

TABLE 4
TYPES OF ERRORS IN ARABIC WRITING CLASSROOM

Number	Type of Errors	Frequencies	Percentages
1	Paragraph coherence	67	7.12%
2	Use of appropriate tenses	71	7.54%
3	Sentence structure	74	7.86%
4	Linking words	65	6.91%
5	Unrelated meaning	51	5.42%
6	Accuracy	65	7.00%
7	Fluency	72	7.65%
8	Articles	32	3.40%
9	Spelling	205	21.79%
10	Inconsistent point of view	57	6.06%
11	Paragraph unity	66	7.01%
12	Punctuation	116	12.33%
	Total	941	100%

As shown in Table 4, the errors made by Arabic writing learners are in the following: spelling (21.79%), punctuation (12.33%), sentence structure (7.86%), fluency (7.65%), use of appropriate tenses (7.54%), paragraph coherence (7.00%), paragraph unity (7.01%), linking words (6.91%), accuracy (6.91%), inconsistent point of view (6.06%), unrelated meaning (5.42%), and finally articles (3.40%). Furthermore, it is clear from the table that Arabic writing learners committed 941 errors in their paragraphs.

Generally, Arabic writing learners committed many errors, especially at the sentence level. It is clear from Table 4 that most errors were at the sentence level. These errors include all grammatical, spelling, article, and punctuation errors. To provide a clear explanation, Figure 2 shows the percentages of each type of errors committed when writing both Arabic and English paragraphs.

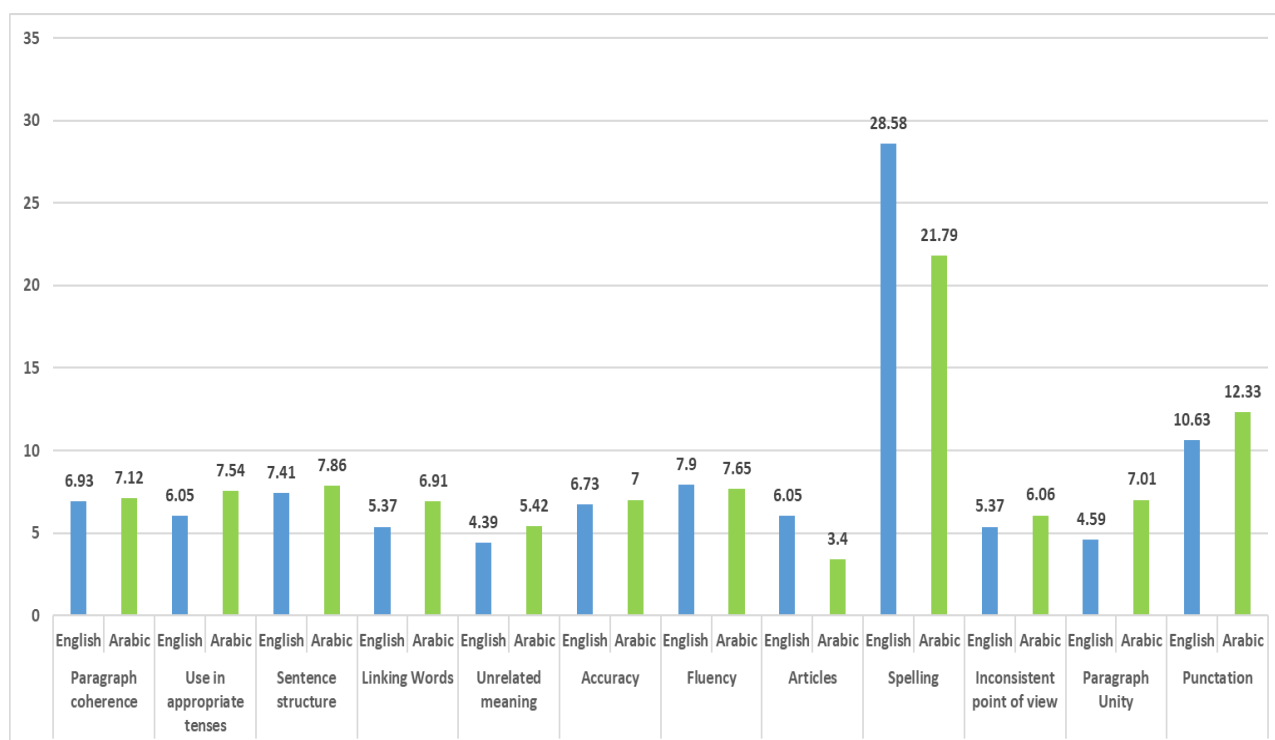


Figure 2. The Pre- and Posttest Comparison Between Arabic and English Errors

VI. DISCUSSION

From a statistical point of view, the findings from the study indicate significant differences $p = 0.000$ ($p < 0.05$) between the mean scores attained by EFL students who studied both English and Arabic languages in a Google Classroom environment (experimental group) compared to those who studied the two languages within a normal classroom environment (control group) in the case of posttest. The experimental groups are favored by the difference. On the contrary, the findings also indicate no significant difference statistically between students within the experimental group compared to those in the control group in relation to their test scores during the pretest for Arabic and English languages. Further, the learners who studied English and Arabic writing demonstrated almost the same errors, especially at the sentence level. Some of the errors are punctuation errors, grammatical errors, articles, and spelling.

Alkodimi et al. (2021) argued that the main causes of ineffective writing abilities are generally unavailability of English resources as well as poor teaching approaches. At the same time, teachers hold a perception that low vocabulary among the learners, orthographic differences compared to their first languages, as well as irregular sentences are some of the factors that adversely affect their ability to write effectively in English. The findings from the study concur with those of Hammad (2012), who indicated that failure to be exposed to English input is part of the factors that contribute to writing errors. In Saudi Arabia, English is learned as a foreign language by students at the school and university levels. Most of the students in the country lack access to an environment that promotes use of English, resulting in English rules being forgotten. This is similar to arguments by Al-Yaseen (2018), who suggested that lack of sufficient knowledge about the structure of the foreign language is the main factor that contributes to writing errors. Certain errors highlighted in the study including article errors, fragments, and preposition errors are a reflection of the impact of mother tongue rules among the students. According to Al-Khasawneh (2014), language interference and adverse mother language transfer are responsible for paragraph errors in EFL writing.

Further, part of the paragraph writing errors, particularly those at the paragraph level including paragraph development, are often a result of poor frameworks and approaches to teaching how to write paragraphs. Hafiz et al. (2018) conducted a study focused on the most common syntactic mistakes committed by learners in the preparatory year at Jazan University, Saudi Arabia. The areas that have the most serious issues are conjunctions, subject–verb agreement, prepositions, a copula (missing verb), articles, tense, and infinitives. The researchers indicated that identified mistakes were a result of failure to practice and mother tongue interference.

Grammatical rules within the traditional methods based on repetition and using grammar in sentence separation rather than communicative approaches that encourage learners to utilize grammar in an interactive manner have been a focus among the teachers who have striven to explain them. Although teaching learners grammar rules allows them to come up with simple sentences, it is ineffective in enabling them to write compound and complex sentences. The teachers tend to have less focus on other rules related to being able to write a well-structured paragraph. Teaching paragraph writing as an approach should sufficiently focus on triggering the learners to not only attain independent thinking but also brainstorm ideas on the topic. Next, students should be trained to organize their thoughts effectively and logically. Teachers must also be heedful when teaching learners how to express one controlling idea within a paragraph clearly, provide the corrected and similar ideas needed to explain the topic, change from one person to another correctly, and align tense and number found in the sentences within a paragraph.

In relation to ESL, Alasfour (2018) examined L1 transfer among Arabic learners. The author pointed out mistakes and factors that contributed to them utilizing CA and EA methodologies. They interviewed five students and examined 50 papers in the study. The findings revealed that mistakes often occur during relative sentence formation, when passive voice is used, and when definite articles are utilized. Further, the researcher found that although mistakes associated with L1 transfer tend to be common, no significant differences existed in relation to prevalence of transfer and non-transfer. Alkubaidi (2019) suggested that although learners preferred free writing, they did not have the necessary skills required for joining simple sentences together. As a matter of fact, most students were able to come up with correct topic sentences but could not back them up with different ideas, examples, and explanations. Writing teachers should, therefore, choose a paragraph teaching approach that includes confirmation of grammar, capitalization, spelling, punctuation, and vocabulary to ensure they are correct.

In terms of effectiveness, Google Classroom is recognized for its efficiency in facilitating students' access to information (Rahmawati, 2020). The results of the current study have delved deeply into the efficacy of Google Classroom on student learning by examining the impact of its utilization on enhancing writing skills among both Arabic and English learners.

Granting them access to various interesting English videos through Google Classrooms including documentaries, movie clips, speeches, and reality programs among others as well as requesting them to provide a review of the resources is another approach to motivating them to utilize Google Classroom in writing. The students often find the materials enjoyable and happily take part in the writing assignment (Islam & Ferdousi, 2019).

VII. LIMITATIONS

This study includes some limitations, which should be considered when interpreting its findings. The first limitation of this study is related to the focus, which was on improving writing skills using Google Classroom. This may impair generalizability to other language skills, including speaking, listening, and reading.

The second limitation is related to the setting and sample of the study in the Arabic and English departments at Umm Al-Qura University. However, as stated, the authors of this experimental study aimed to investigate the effect of using Google Classroom to improve writing skills for English and Arabic learners; the sample size is considered appropriate for a quasi-experimental research design.

Finally, the researchers used the pretest and posttest scores for both Arabic and English learners. However, using pretest and posttest in this study helps avoid any bias that might impact the data analysis and interpretation.

VIII. CONCLUSION AND FUTURE RESEARCH

The researchers conducted the current study at the university level, where Arabic and English departments helped conduct this comparative and experimental study. Therefore, the researchers investigated the impact of Google Classroom on the student's writing skills in Arabic and English classrooms. The study indicated a positive impact of Google Classroom on students' writing skills. The authors found statistically significant differences the learners who were taught English and Arabic lessons via the Google Classroom environment and those who were taught the same lessons through traditional learning methods in the posttest in favor of the experimental groups. This study also indicated that Arabic and English writing learners committed similar errors in their writing samples.

The following recommendations might be considered for further researchers interested in conducting studies regarding using Google Classroom in language learning.

Firstly, this study was limited to writing skills. Future comparative research can be conducted to examine the impact of Google Classroom on the students' reading skills or other language skills in Arabic and English classrooms. Second, the study's findings indicated common writing errors for both Arabic and English language learners at the university level. Therefore, further research might be needed to explore common writing errors at primary and elementary or secondary school. Third, the researchers investigated the impact of Google Classroom on the student's writing skills in Arabic and English classrooms. Future research is needed to explore both requirements and factors affecting the use of Google Classroom in language learning.

Finally, an extensive investigation of Arabic and English writing learners could provide further insights into factors contributing to these writing errors.

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