



Research paper

The Impact of Peer Feedback on Moroccan EFL University Students' Writing Errors

The Case of Subject-Verb Agreement, Fragment and Run-On Sentences

Mourad Lahoual*¹

¹ Higher Institute of Management, Administration and Computer Engineering, ISMAGI/ Department of Languages, Angle Avenue Al Abtal et rue Ouad Fès, Agdal, 10100, Rabat, Morocco

KEYWORDS

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ABSTRACT

This study investigates the impact of peer feedback on Moroccan EFL University students' writing proficiency. The study focuses mainly on examining students' errors at the level of their written complex sentences, seeking to examine the effectiveness of structured peer feedback in reducing writing errors. To do so, 80 semester two students at Ibn Tofail University have been divided into two groups: the experimental and control groups. The difference between the experimental and control groups' errors has been corroborated by quantitative measurements using statistical tests, namely the independent t-test and the paired t-test to analyse students' written errors before and after receiving the treatment (peer feedback). The results demonstrate that peer feedback has helped to reduce students' written complex sentence errors, namely subject verb-agreement, fragment and run-on leading to improving their knowledge of English complex sentence structure rules. The findings of this study provide practical implications for researchers, syllabus designers, and language teachers to integrate peer feedback into language instruction to reduce such errors and develop Moroccan EFL university students' writing proficiency.

1. Introduction

EFL learners, especially in Moroccan educational settings, frequently encounter challenges while constructing complex sentences. Moroccan EFL students often struggle to form correct complex sentences, which hinders their ability to compose grammatically correct and clear communication. This obstacle hinders their ability to articulate and communicate academically. Their writing is terrible mainly because they make errors like inadequate sentence structure, uncoordinated clauses, and wrong use of conjunctions. Thus, it needs to be resolved to improve students' language skills, boost their confidence, and help students become more skilled at communicating business in English. This section identifies and analyses common errors made by Moroccan EFL students in constructing complex sentences, as clarity and grammatical accuracy in academic and professional writing depend on it. Understanding the roots of these errors and exploring avenues for improvement are essential steps toward collaboration between educators and students for more effective and precise written communication.



*Corresponding author: Mourad Lahoual

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2. Literature review

The fundamental rule of all English grammar is subject-verb agreement; the subject and verb in a sentence must match in number. One of the problematic grammatical rules that EFL learners face is complex sentence problems. Take a subject-verb agreement example: When the student makes a sentence, "The cat, who is black, 82 is playing in the garden." According to Ghaicha and Ait Taleb (2016), errors in subject-verb number agreement frequently occur in Moroccan EFL learning because their native language does not contain equivalent grammatical constructions to English. According to Abu-Rabia (1997), Moroccan EFL students commonly produce fragmenting errors, particularly when constructing complex sentences, due to several factors. Students commit such written errors because they are unfamiliar with writing skills, particularly those involving complex sentences. An additional factor lies in the first-language interference and challenges in learning English syntactic rules whose structure differs from their mother tongue (Arabic).

Complex sentence errors become obvious when learners aim to develop multi-clause sentences in which subjects and verbs must match properly (Celce-Murcia & Larsen-Freeman, 1999). Another standard error students make when using complex sentences is sentence fragments, which occur when students fail to include an entire independent clause in their sentence structures. This is a problem common with complex sentences where the student erroneously regards the dependent clause as an independent sentence. As a result, this is a fragment missing a subject, verb, or intelligible thought that dilutes the clarity of the student's writing. Ferris (2003) points out that fragment errors indicate a lack of understanding of sentence boundaries and a failure to recognise that every sentence stands alone as an independent unit. The problem is much worse when the sentences are complex, with multiple clauses expected to work together to generate an intelligible sentence.

Missing clarity can have a huge influence on the reader's understanding and writing quality. However, EFL learners keep making punctuation mistakes in their writing, especially in compound or complex sentences. Thus, complexity in sentences has often been associated with incorrect punctuation in the writing of EFL students. Common errors include the omission of commas, missing and misused colons and semicolons, and comma splices. A comma splice is generally described as a grammatical error involving joining two independent clauses without proper punctuation or a coordinating conjunction. Students who have not thoroughly learned complex sentence structure commonly make this writing error. Incorrect uses of commas result in run-on sentences, where more straightforward sentences are obtained instead of proper clause separation. Ghaicha and Ait Taleb (2016) mentioned comma splice errors among the most frequently occurring ones among English as a Foreign Language students in Morocco, who commonly produced comma splice errors, showing an insufficient grasp of punctuation and complex sentence structure. (Swales & Feak, 2004).

One of the most common errors students make in their writing is run-on sentences, which occur when there is an incorrect combination of two or more independent clauses without using proper punctuation or conjunctions that could join them. This occurs when students attempt to use complex sentences but fail to connect the clauses properly; as a result, the sentence becomes ungrammatical and difficult to understand. According to Ferris (2003), one common problem is the use of run-on sentences, especially among EFL learners who struggle to recognise where a clause ends. Such errors prevent a student from constructing grammatically correct complex sentences, as using the appropriate coordinating conjunctions and punctuation is vital in keeping the sentence clear and coherent.

3. Materials and Methods

The study employs a quasi-experimental research design to investigate the effect of the independent variable (peer feedback) on the dependent variable (the students' errors in subject-verb agreement, sentence fragments, and run-on sentences). An experimental and a control group were chosen; the experimental group received the intervention (peer feedback), while the control group did not. Using a comparison of two groups, the research seeks to understand the effectiveness of peer feedback and corrective feedback in decreasing writing errors and improving the writing performance of Moroccan EFL university students.

After implementing the pretest and the posttest, the empirical data obtained were corroborated using a paired t-test analysis to assess the significance of the findings. The quantitative data have all been subject to statistical analysis and numerical interpretation to find valid, reliable answers to the hypotheses and research questions of the study. To deal with these two distinct yet related aspects simultaneously, inferential statistical analyses have been used alongside descriptive statistics to examine the frequency distribution of the errors made by students to see different relationships among the variables considered in the study.

3.1 Research Question

How does peer feedback influence the reduction of writing errors, specifically subject-verb agreement, sentence fragments, and run-on sentences, among Moroccan EFL university students?

3.2 Research Hypothesis:

Peer feedback significantly reduces writing errors related to subject-verb agreement, sentence fragments, and run-on sentences in the writing of Moroccan EFL university students.

4. Results

4.1 Subject-verb agreement

Figure 1 below presents the percentage of errors made by the two groups in subject-verb errors. The control group made a significantly higher rate of errors than the experimental group. However, the experimental group's error rate decreased significantly to 20%. The experimental group figure is much lower. This significant disparity underscores the efficacy of the approach adopted in the experimental group, which significantly decreased errors related to subject-verb agreement. This is due to the positive impact of the intervention (peer feedback) on reducing this type of error among EFL Moroccan university students. Hence, this graph shows that the experimental group achieved more accurate subject-verb agreement, making fewer errors than the control group, as shown by the graph.

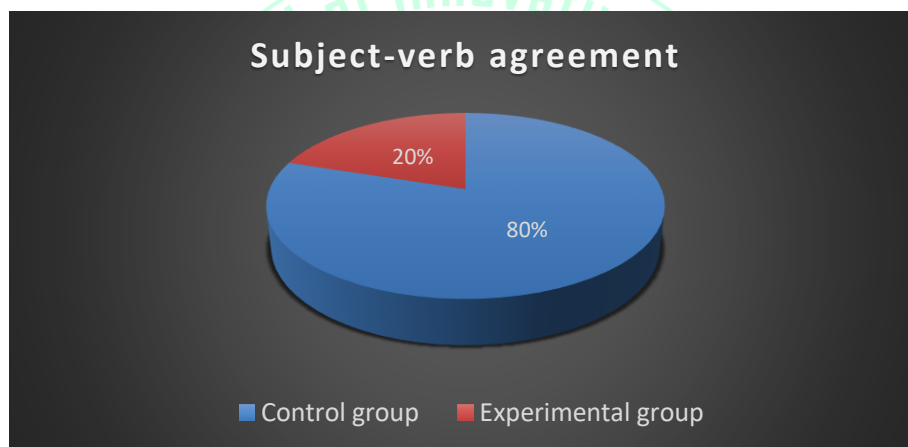


Fig. 1 The percentage of subject-verb agreement errors in the control and experimental groups

The control and experimental groups' post-test results reveal a great difference in subject-verb agreement. In other words, the test has shown that subject-verb agreement errors have been reduced due to the effectiveness of the treatment. This is apparent in the contrast in the mean: the control group's mean value is 0.8000, while that of the experimental group is 0.17000. Such a difference indicates that the experimental group has performed better in the post-test by committing fewer errors and therefore getting higher grades.

Table 1 Descriptive statistics for subject-verb agreement errors in the control and experimental groups

	Subject-Verb Agreement	N	Mean	Std. Deviation	Std. Error Mean
Subject-Verb Agreement	Control Group	40	,8000	,75786	,11983
	Experimental Group	40	1,7000	,56387	,08916

However, it is worth investigating whether this level of difference is statistically significant or not. Therefore, the Independent Samples T-test was run. The results are presented in Table 2.

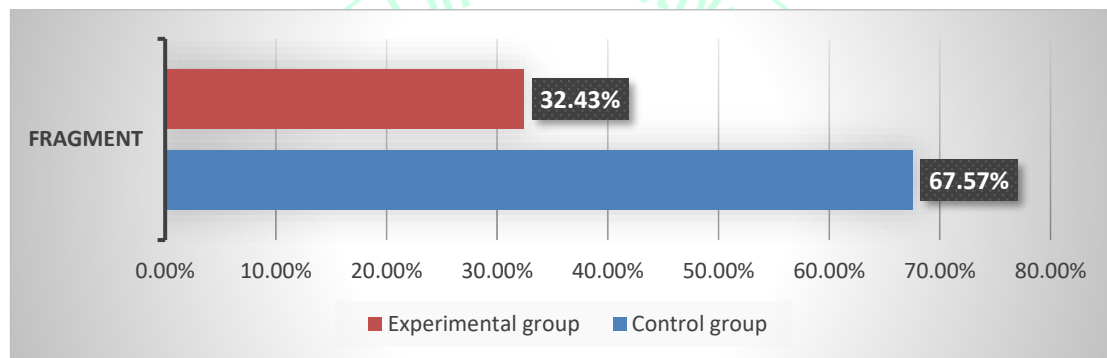
The results of the independent t-test display a numerical difference between the two groups' errors of subject-verb agreement ($F=5.459$; $p < .05$). In other words, the experimental group made fewer subject-verb agreement errors than the control group. Thus, this result backs up the findings of the frequency distribution obtained in the table and is regarded as support for the effectiveness of the adopted treatment (peer feedback).

Table 2 The Paired Samples Test results of subject-verb agreement errors in the experimental and control groups

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Subject-Verb Agreement	Equal variances assumed	5,459	,022	-6,026	78	,000	-,90000	,14936	-1,19735	-,60265	
	Equal variances not assumed			-6,026	72,051	,000	-,90000	,14936	-1,19774	-,60226	

4.2 Fragment

In Figure 2, the number of fragment errors in both control and experimental groups is clearly shown. It can be observed from the graph that the control group's error rate featured a higher value, 67%, compared to the experimental group, 32%. The experimental group's reduction in fragment error suggests that the treatment was effective, as it helps them be able to construct correct complex sentences. This outcome reinforces the importance of peer feedback in helping learners identify and correct sentence fragments, ultimately leading to more cohesive and grammatically accurate writing.

**Fig. 2** The percentage of fragment errors in the experimental and control groups**Table 3** Descriptive statistics for fragment errors in complex sentence construction

	Group	N	Mean	Std. Deviation	Std. Error Mean
Fragment	Control Group	40	1,3750	,66747	,10554
	Experimental Group	40	1,7000	,56387	,08916

Fragment error analysis clearly distinguishes the two groups. The mean of the experimental group that receives peer feedback is 1,7000, whereas the control group's mean is 1,3750. This suggests that there is a significant improvement in the scores of the students who belong to the experimental group. The control group has a standard deviation of 0.66747 and the experimental group 0.56387, which means there is some variability within each group in the frequency of errors. This indicates some variability between datasets within each group of error sources.

The above results have been submitted to another independent samples t-test to determine whether the differences between the two groups' errors shown in Table 3 are significant and whether there is a relationship between implementing the peer feedback method and reducing the experimental group's errors.

Table 4 Independent Samples T-test results for fragment errors

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Fragment	Equal variances assumed	4,256	,042	-2,352	78	,021	-,32500	,13815	-6,0004	-,04996	
	Equal variances not assumed			-2,352	75,882	,021	-,32500	,13815	-6,0016	-,04984	

The independent t-test results with a p-value of 0.021 ($p < 0.05$) in the above table also show a statistically significant difference between the two groups, indicating a significant impact of the treatment on fragment error reduction. A mean difference of -32500 further demonstrates that, on average, participants in the experimental group made significantly fewer fragment errors than participants in the control group when constructing complex sentences. These results contribute to the body of research demonstrating that sentence structure accuracy is enhanced with peer feedback.

4.3 Run-on

Figure 4 below clearly contrasts the errors of the two groups. It obviously reveals that the highest frequency of errors related to run-on sentences is for the control group. While the control group contained, on average, 71% of errors, the experimental group's mean was significantly lower at 29%. Without a doubt, this decrease in run-on errors is evidence of the effectiveness of peer feedback received by the experimental group in enhancing their sentence structure, leading to better scores among students of this group. This means that a lower frequency of run-on errors within the experimental group demonstrates better competence in writing, mainly in constructing complex sentences.

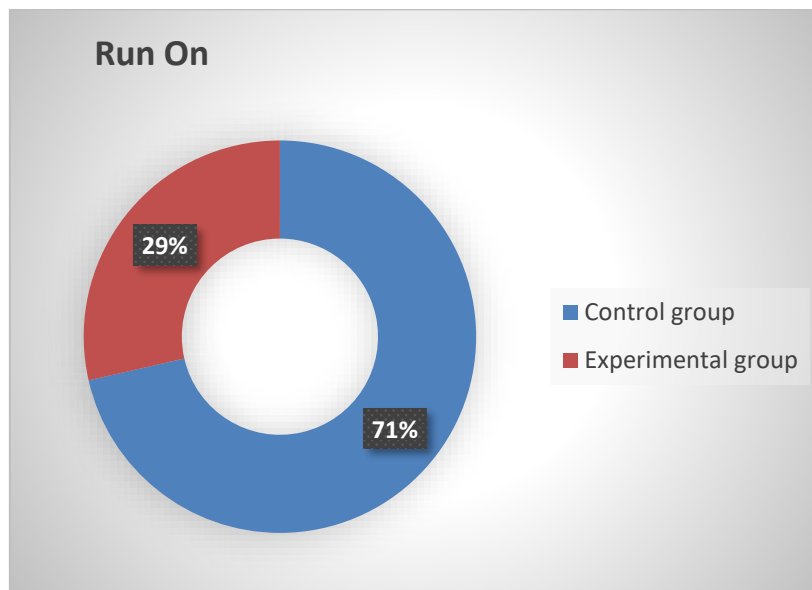


Fig. 3 The percentage of run-on sentence errors in the experimental and control groups

The table below displays the group statistics related to the occurrence of run-on sentences among the control and experimental groups. The mean value for the control group is 1,0000, with a standard deviation of 0,71611, indicating a significant variation in the data. Conversely, the experimental group exhibits a higher mean of 1,6000, with a lower standard deviation of 0,54538, suggesting more consistent performance within this group because their grades are much higher than those of the control group, for they have made fewer errors related to run-on sentences. This error reduction is undoubtedly due to the assessment they have already received from their peer during collaborative writing sessions.

Table 5 The descriptive statistics for Run-On sentence errors

	Group	N	Mean	Std. Deviation	Std. Error Mean
Run-On	Control Group	40	1,0000	,71611	,11323
	Experimental Group	40	1,6000	,54538	,08623

To determine the significance of the differences between the two groups, an independent samples t-test was conducted. The results reveal a statistically significant difference in the occurrence of run-on sentences between the control and experimental groups, with a p-value of 0.000 ($t = 4.216$, $df = 78$). The mean difference of 0.6000, coupled with the 95% confidence interval ranging from 0.8833 to 0.3166, underscores the effectiveness of the peer feedback treatment received by the experimental group. This significant reduction in run-on sentences in the experimental group highlights the impact of the intervention on students' ability to construct complex sentences accurately.

Table 6 Independent samples t-test results for Run-On sentence errors

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Run-On	Equal variances assumed	,000	1,000	-4,216	78	,000	-,60000	,14233	-,88335	-,31665
	Equal variances not assumed			-4,216	72,852	,000	-,60000	,14233	-,88366	-,31634

5. Discussion

The comparative analysis of the pretest and posttest results of the experimental group demonstrates a significant improvement in the ability of the subjects to construct correct complex sentences after the treatment of peer review. The mean of pretest scores (10.1750; SD 3.41105) revealed a high dispersion of students' performance. However, after the intervention, the average score surged to 14.0000, with a reduced standard deviation of 1.90815, signifying a unanimous improvement in the students' writing skills. The independent samples t-test further validates this improvement in the mean difference of 3.82500 and the t-value of 6.285, which is significant at the $p < .001$ level ($p < .05$). These findings unequivocally indicate that peer feedback sessions play a pivotal role in improving students' skills on complex sentence structures, reinforcing the idea of collaborative learning as a viable strategy in language learning.

The results from the analyses of the experimental group that received peer feedback as an intervention show a statistically significant reduction in various types of written errors related to complex sentence construction compared to those of the control group. Importantly, the findings of this study match the current literature review report, conclusively reaffirming the benefits of peer feedback to language learning in general and EFL writing. In the following section, some more complex sentence errors that decreased risk from trial to trial for the experimental subjects through action peer feedback are revisited, confirming the hypothesis of discovering evidence supporting whether the findings would be valid.

Compared to the control group, experimental group students showed strong results in preventing subject-verb agreement errors, with 20% in the control group and 80% in the experimental group. This significant decrease highlights the potential of peer feedback in improving students' understanding of this essential knowledge and grammar rule indicator. Previous research confirms this observation, indicating that peer feedback facilitates grammatical accuracy since students receive targeted, context-specific feedback from peers (Farrah, 2012; Topping, 1998). The significant results of the t-test highlight the efficiency of peer review in eliminating specific grammatical errors, as supported by Cho and MacArthur (2010), who noted that, in certain circumstances, peer feedback might be as effective as, or even superior to, teacher feedback.

The reduction in fragment errors of the experimental group to 32%, down from 67% for the control group, emphasises that peer review feedback is significant in students' constructing coherent sentences that convey complete thoughts. This finding is consistent with the collaborative learning theory, which emphasises the role of interaction among peers in developing a deeper understanding of sentence structure through active engagement and feedback (Hyland, 2019). Moroccan EFL students often commit fragment errors, particularly when constructing complex sentences, due to several factors. The reasons for such a phenomenon include the lack of practice in using complex sentence structures in daily linguistic practice, interference from their mother tongue (Arabic), and difficulty with the syntactic rules of English that differ considerably from those found in Arabic (Abu-Rabia, 1997). Storch (2005) confirms the notable downfall of fragment errors accordingly; she proposed that peer response contributes significantly to the coherence and completeness of sentences of the written text.

The significant decrease of 29% in run-on sentence error for the experimental group as opposed to 71% for the control group mirrors the utility of peer feedback in improving sentence structure for Moroccan EFL university students. This result aligns with Vygotsky's (1978) sociocultural theory of learning, which argues that learning is socially constructed. The collaborative nature of peer feedback supports a supportive atmosphere wherein students actively engage in meaningful discussions about their written work. This active engagement inspires and motivates students to understand grammatical rules more and develop a better understanding of constructing grammatically and syntactically correct complex sentences.

Moroccan EFL students also encounter difficulties with run-on sentences, stimulated by linguistic and pedagogic issues. A primary issue stems from the composition of their native language, where they use lengthy, flowing sentence structures that lack the strict punctuation demanded by English (Saigh & Schmitt,

2012). Consequently, Moroccan students may combine independent clauses with no conjunctions or appropriate punctuation, producing run-on sentences in their English writing. Moreover, limited exposure to the conventions of English writing in formal educational schools increases their difficulties in mastering those grammatical structures.

The experimental group's notable decrease in run-on sentence errors indicates the proactive role that peer feedback played in encouraging critical analysis and self-awareness in writing. It is clear that after the intervention, students have become more likely to identify structural problems in their writing by assessing the work of their peers on errors related to subject-verb agreement, fragment and run-on sentences, which reinforces the proper use of sentence construction. This result is consistent with the larger body of research on the advantages of peer review for enhancing writing abilities, specifically for spotting and fixing run-on sentences (Hyland, 2000).

To cut it short, the remarkable improvements in the experimental group, as indicated by statistically significant reductions in errors related to subject-verb agreement, fragments and run-ons, are consistent with the research alternative hypothesis (H1). Peer feedback has emerged as an impactful teaching strategy that promotes syntactic accuracy and creates textual consistency, making it a likely game-changer in the EFL sphere (Li et al., 2019). In contrast, the unchanged results in the control group highlight the limitations of conventional approaches, thus supporting the null hypothesis (H0) for this group.

6. Conclusions

These findings also emphasise the wider influence of peer feedback in the Moroccan EFL context, as observed by El Qadiri (2020) and Elkoubaiti and Eloudgani (2021). It promotes student engagement in collaborative evaluation, encourages autonomy, and improves critical thinking and awareness of various linguistic structures. These paper findings reaffirm the centrality of peer feedback in dealing with the challenges in EFL writing, particularly in complex sentence construction among Moroccan EFL students. The results not only contribute to answering the research questions but also align with the theoretical underpinnings of collaborative and constructivist learning. This paper lays the foundation for pedagogical advancements that prioritise collaboration, critical reflection, and syntactic mastery in EFL education by bridging the gap between theoretical insights and empirical outcomes.

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