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The Effectiveness of Providing Direct Versus Indirect Written Corrections on the Grammar of Lebanese Sixth-Grade Students Learning English as a Foreign Language

Buna Khaled Baasiri

Department of English Language and Literature, Beirut Arab University, LEBANON

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ملخص الدراسة:

استخدمت هذه الدراسة نهجًا متعدد الأساليب، يجمع بين شبه التجربة وبروتوكولات التفكير بصوت عالٍ، لدراسة كيفية تأثير التغذية الراجعة التصحيحية الكتابية المباشرة وغير المباشرة على الدقة النحوية في اللغة الإنجليزية كلغة أجنبية (EFL) بين طلاب الصف السادس في لبنان. أشارت النتائج الكمية إلى أن كلا النوعين من التغذية الراجعة حسّن الدقة أثناء المراجعة، حيث أظهرت التغذية الراجعة المباشرة تأثيرًا فوريًا أقوى. والجدير بالذكر أن التغذية الراجعة غير المباشرة أدت إلى تعلم فوري أفضل للهياكل المقارنة. أشارت البيانات النوعية إلى مستويات فهم متشابهة أثناء تصحيح الأخطاء بين المجموعات، مما يسلط الضوء على الحاجة إلى مراعاة خصائص المتعلم الفردية وأنواع الأخطاء عند تقديم التغذية الراجعة الكتابية. في النهاية، يقدم البحث رؤى رئيسية حول فعالية أساليب التغذية الراجعة المختلفة والعوامل المؤثرة على نجاحها في تعلم اللغة، مع التركيز على ممارسات التغذية الراجعة الشخصية والمستنيرة معرفيًا.

الكلمات المفتاحية: ااضطراب الشّراهة عند تناول الطعام، النّهم العصبي، الكماليّة، تقدير الذات، راشدات.

Abstract

This study employed a mixed-methods approach, combining a quasi-experiment and Think-Aloud Protocols, to examine how direct and indirect written corrective feedback affected the grammatical accuracy of English as a Foreign Language (EFL) among sixth-grade students in Lebanon. The quantitative findings indicated that both feedback types improved accuracy during revision, with direct feedback showing a stronger immediate impact. Notably, indirect feedback led to better immediate learning of comparative structures. Qualitative data suggested similar levels of understanding during error correction across groups, highlighting the need to consider individual learner characteristics and error types when providing written feedback. Ultimately, the research offers key insights

into the effectiveness of different feedback methods and the factors influencing their success in language learning, emphasizing personalized and cognitively informed feedback practices.

Keywords: effectiveness, written corrective feedback, grammatical accuracy, learners, quasi-experiment, Think-Aloud Protocols, initial language proficiency, target linguistic structures, short-term learning, long-term retention, quantitative results

Introduction

Teachers generally believe that correcting grammar in student writing improves future accuracy, a notion supported by research showing that students receiving error feedback do improve grammatically over time (Al Bakri, S., 2015). Studies also suggest students value and believe in the helpfulness of error feedback for their writing skills (Al Ajmi, A. A. S. 2018). In EFL writing instruction, the primary question is often how, rather than whether, to correct errors (Amrhein, H. & Nassaji, H. (2017), leading to the use of direct correction (providing answers; Lee, 2013) or indirect correction (using codes for self-correction; Hyland, 1990). Direct feedback involves students transcribing teacher corrections (Lyster, R & Ranta, L., 2007), while indirect feedback requires self-identification and correction. This study is important because grammatical accuracy is a marker of good writing and because there is a lack of specific research on the impact of direct and indirect correction on learners' grammar, a gap this study intends to fill.

Literature Review

According to Bitchener and Storch (2023), written feedback can be successfully utilized for developing L2. Williams (2022) explains that writing plays an important role in facilitating and developing L2 because as students write, they develop the cognitive process through which the brain interacts with the information around it, stores it and analyses it in order to make the relevant decisions (Williams, 2022). Compared to speaking, it is easier for the students to focus on a written form than on an oral one. Williams (2022) states, "A written input is pertinent and relevant which a learner can refer to at any time" (p. 322).

Williams (2022) says, "through writing, learners have better opportunities to test the extent of their acquisition than through speaking" (p. 328). Bitchener and Storch, (2023) talk about the written and oral feedback. They explain that students have anxiety when they receive oral feedback which is not the case when they are provided with a feedback in the written mode.

The Role of Written CF in Developing New L2 Knowledge

Three sequential macro-processes shape the development of L2 knowledge (Housen & Pierrard, 2005). The three processes are: Knowledge internalization, knowledge restructuring and knowledge consolidation. Knowledge internalization is the first stage in cognitive processing which is known as the process of transforming explicit knowledge into implied knowledge (Housen & Pierrard, 2005). When explicit knowledge is shared among learners, they think of it deeply and consider it thoroughly, then extend and relabel their implied knowledge (Tsai & Lee, 2006; Nonaka & Takeuchi, 1995). Knowledge modification is the second stage in which learners keep restructuring knowledge by improving in accuracy the form- meaning connections through receiving additional positive and negative evidence/input (Housen & Pierrard, 2005). According to Long (2006), the positive evidence provides learners with syntactic correctness, whereas negative evidence in a form of corrective feedback provides learners with information about what cannot be used in L2. Negative input is efficient and important since it helps learners have the opportunity to hypothesis testing and restructuring their explicit knowledge (Williams, 2022). Housen and Pierrard (2005) state, "Knowledge consolidation is the third and final stage where L2 knowledge is consolidated through repetition and practice until it becomes more accurate and rapid" (p. 6). Learners need this stage to strengthen their L2 knowledge. The three stages of L2 cognitive processing might be separate, but they overlap (Williams, 2022) as during stage one and two the learner's explicit knowledge is developed and during stage two and three the L2 knowledge is consolidated and strengthened through frequent practice, consciousness and repetition (Guo, 2015).

Richards (1971) explains that learners make errors when they try to establish form-meaning connections and hypothesis testing about L2 knowledge. Ferris and Roberts (2011) point out that "learners sometimes generalize rules, put into practice incomplete rules or fail to apply accurate rules due to insufficient input processing" (p. 6). For example, learners know that (/-er/ than) is used for the comparative form as in shorter than, smaller than, younger than, etc. Later, learners are introduced to comparatives that are made up of 2 syllables or more such as more beautiful than. Thus, learners may be likely to over-generalize the rule of (/-er/ than) as in 'A queen is beautifuler than a witch'. According to Ferris (2001), the overgeneralization may happen due to some factors like stressing on earlier priming, so learners apply the same rule on all types of

comparatives which is adding (/-er/ than) to adjectives of one, two or more syllables. Another factor can be limited and inadequate input processing of the target linguistic structure. In this case, written corrective feedback (CF) may support these learners to modify their old hypothesis, produce new hypothesis and restructure their L2 knowledge. By time, errors become less frequent in the consolidation stage because of recurring practice (Dekeyser, 2007). However, it may be noticed that some errors also occur in the consolidation stage when learners retrieve meaning-form connections with inadequate attention (Bitchener & Storch, 2023). Learners keep making such errors despite the fact that they know the rules. However, task time limit, complexity of the task, confusion and difficulty to retrieve information are factors that drive learners to mix up rules, so they add (/-er/_than) to adjectives of two or more syllables and use (more_than) to one syllable adjectives. In such a case, written corrective feedback (CF) may facilitate the development of explicit knowledge by reactivating its controlled processing and contributing to knowledge consolidation (Housen & Pierrard's, 2005).

The Effectiveness of the Different Written (CF) Strategies

There are factors other than the ones mentioned above that impact the effectiveness of written corrective feedback (CF). Ellis (2009) classifies the strategies of written (CF) into six major categories: direct corrective feedback, indirect corrective feedback, metalinguistic corrective feedback, the focus of the feedback, electronic feedback and reformulation.

In the direct written corrective feedback (CF), the teacher provides the learner with the correct answer for the error, yet in the indirect written (CF), the teacher underlines only the errors and provides the learners with error codes (sp for spelling, ww for wrong word, s/v for subject verb agreement…). Meanwhile, in the metalinguistic (CF), the teacher highlights the errors and adds brief grammatical descriptions. For learners, the direct written corrective feedback is the most explicit of all. Yet, when it comes to the two types: indirect (CF) and metalinguistic (CF), learners prefer the latter. The variation in the written corrective feedback (CF) is due to the scope of the focus; if the teacher targets certain errors in linguistic structure such as comparative and prepositions of space, this is known as focused (CF). On the other hand, if there is no specific target and the teacher is providing written corrective feedback for every single error, this is called unfocused (CF) (Ellis, 2009). Since not all learners are at the same level of attention and existing knowledge, it is expected that providing learners with different types of written

corrective feedback (CF) will help them develop explicit L2 knowledge differently and varyingly (Bitchener & Storch, 2023).

Direct and indirect written (CF) vary in terms of their degree of explicitness. For learners, direct written corrective feedback (CF) is more explicit than indirect written corrective feedback (CF). Underlining errors without providing the correct answer is confusing for learners especially those whose knowledge of error codes and grammatical rules is limited.

A study conducted by Lalande (1982) finds that indirect written corrective feedback (CF) is more effective than direct corrective feedback (CF). He suggests that indirect written corrective feedback (CF) requires learners to engage in 'guided learning and problem solving', and requires a reflection from the teacher that fosters long-term acquisition (Lalande, 1982, p.140). As learners receive indirect written corrective feedback, they are boosted to come up with another hypothesis that they have to test in another content (Lalande, 1982; Ferris, 2002). This process leads to deeper internal processing through which learners have to come up with the correct linguistic structure or form. In studies conducted by Ferris (2006) and Lalande (1982), learners receiving the indirect written corrective feedback (CF) prove to perform better than those receiving the direct written corrective feedback (CF) in terms of improved accuracy over time. On the contrary, some researchers believe that direct written corrective feedback (CF) is more effective for learners than indirect (CF). In their study, Bitchener and Knoch (2010 b, p. 209) point out that direct written corrective feedback (CF) reduces confusion, helps learners to resolve complex errors, and provides explicit feedback. Chandler (2013) argues that direct written corrective feedback (CF) enables learners to internalize the correct form which is not the case for learners who receive indirect written corrective feedback simply because they are not accurate whether their new hypothesis is right (Chandler, 2013).

Studies that Found an Advantage Regarding the Use of Indirect (CF)

Lalande (1982) is among the researchers who conducts a study to examine the relative effectiveness of direct corrections and error codes in improving the grammatical accuracy of 60 German FL learners of intermediate level at USA University. Lalande's (1982) participants are divided into two groups, one group receives direct error correction and the second group receives an indirect coding and error logs. Lalande (1982) reports that the latter performs better than the

former. Lalande (1982) explains that the learners' awareness of error and problem-solving techniques has a significant effect on the development of writing. Indirect written corrective feedback (CF) is preferable because through this strategy of correction, learners are guided and more into problem-solving (Lalande, 1982). Corder (1967) states that "simple provision of the correct form may not always be the only, or indeed the most effective, form of correction: making a learner try to discover the right form could be more often instructive to both learner and teacher" (p. 168).

Truscott (1996) points out that Lalande's (1982) study lacks the presence of a control group which can be considered as a flaw. Lalande's (1982, as cited in Van Beuningen et al. 2012) study "the indirect group was engaged in more form- focused activities than the group receiving direct (CF)" (p. 7). Van Beuningen et al. (2012) explains that to get accurate and effective results, learners must receive the same type and amount of writing, and they should be instructed the same way. Otherwise, the results will be doubted.

Eslami (2014) also concludes that using indirect corrective feedback (CF) is more effective than the direct corrective feedback (CF). In her study that she conducts on low-intermediate EFL students in Iran to examine the relative effectiveness of direct and indirect (CF) in improving their grammatical accuracy, she finds that the indirect (CF) group outperformed the direct (CF) in the immediate post-test and the delayed post-test. One of the advantages of her study is that she targets a limited number of errors in the use of the simple past tense. She concludes that indirect corrective feedback (CF) has a longer-term effect than direct correction. However, similar to Lalande (1982), Eslami's study is criticized for not including a control group. Therefore, both Lalande (1982) and Eslami's (2014) studies do not provide strong evidence for the effectiveness of indirect written corrective feedback (CF).

Studies that Found an Advantage Regarding the Use of Direct (CF)

In his study, Chandler (2013) involves 31 EFL learners of intermediate level from Hong Kong to investigate the effectiveness of several types of written corrective feedback (CF): direct error correction, underlining with error codes, error codes only, and underlining only. Chandler (2013, p. 285) points that direct correction and underlining are more effective than error codes. She reports that few errors are made by the learners in their new output when they receive direct

corrections. Learners find direct correction that it is the easiest and fastest way to learn. Studies by Bitchener and Knoch (2010 b) and Van Beuningen et al. (2008, 2012) also find that using direct written corrective feedback (CF) is an advantage. In Bitchener and Knoch's study (2010 b), the participants are advanced L2 writers at the university in USA. They receive four different types of correction feedback (CF): written metalinguistic explanation, indirect circling of errors, written metalinguistic feedback, and oral form-focused instruction. They do three tests: a pre-test, immediate post-test and delayed post-test. It is required of them to describe a picture of a different social setting. It is noticed that the experimental groups that receive the indirect (CF) and the direct (CF) outperform the control group in the immediate post-test. Throughout the 10 weeks, more writing tasks are assigned. As a result of this practice, the participants who receive direct (CF) show progress in their grammatical accuracy. Bitchenr and Knoch (2010 b) infer that the metalinguistic explanation is more efficient since the type of error is identified and more explanation is provided with detailed corrections. This makes it easier for learners and helps them notice the teacher's input and produce a better output. However, Bitchener and Knoch (2010 b) state that as learners receive the indirect written corrective feedback (CF), they get confused especially that in such type of correction only the location of the errors is specified.

In their pilot study, Van Beuningen et al. (2008) produces similar findings. Van Beuningen et al. (2008) conducts the pilot study on 62 Dutch secondary school students. The target is to examine the relative effectiveness of direct and indirect written corrective feedback (CF) on improving grammatical accuracy. The 62 participants are divided into two experimental groups: a group that receives direct corrections, and a group that receives the underlining of errors and providing codes and two control groups: a group that receives writing practice only without written corrective feedback (CF), and a group that revises their pre-tests but without receiving written corrective feedback (CF). The pilot study reports that the experimental groups internalize the correct form at once, but the control groups fail to do so because they are not accurate if their own hypothesized correction is correct (Van Beuningen et al., 2008).

In another study by Van Beuningen et al. (2008), 134 participants benefit from both direct and indirect comprehensive corrective feedback (CF) and show improvement in their grammatical accuracy. Van Beuningen et al. (2008) maintains that what is related to grammatical errors such as articles, inflectional errors and word order errors, the learners who receive direct corrective feedback (CF) benefit more, yet what is related to non-grammatical accuracy such as lexical

errors and orthographical errors, the learners who receive indirect corrective feedback (CF) show improvement in their new output.

To sum up, the studies that are conducted by different researchers had different findings. Some studies find no significant difference between the two types of corrections, other studies prefer direct (CF) over indirect (CF) Bitchener (2012) and Ferris (2010) points out that the wide variety in the findings is due to many factors including: the targeted error types, the language teaching and learning context, the amount of practice and the learners' proficiency level. These variations may explain the confusing results that are obtained between the direct and indirect written corrective feedback (CF) research (Bitchener, 2012).

This study aims to answer the following research questions:

1. How significantly does written CF contribute to EFL students' grammatical improvement concerning new linguistic elements, both in the process of revision and in their later writing endeavors?
2. How does the success of written error correction in improving grammar vary when applied to different linguistic targets, namely comparative structures and prepositions of space?
3. How does the success of using indirect written feedback to improve grammar vary based on the students' English language ability (higher or lower) and the type of school they attend (private or public)?
4. In what ways do students respond to direct and indirect written error correction when they are revising their writing, and what actions do they take to fix their mistakes?

Research Method

Research Design

To investigate the effectiveness of direct and indirect written corrective feedback in this study, the researcher adopts the true experiment design to be able to get answers for the research questions. The study adopts a quantitative and qualitative method research design (Bryman, 2008; Creswell, 2014; Dornyei, 2007). The purpose behind using the mixed method is for the breadth and depth of understanding and corroboration (Creswell, 2014 p. 123).

Employing mixed methods is efficient as the strengths of one method counterbalance weaknesses of the other (Bryman, 2008; Creswell, 2014; Dornyei, 2007; O'Leary, 2004). Moreover, "a mixed method approach has a unique potential to produce evidence for the validity of research outcomes through convergence and corroboration of the findings" (Dornyei, 2007, p. 45).

The collected data will be used to compare students' grammatical accuracy differences. The quasi-experiment (quantitative) provides answers to the questions regarding whether written corrective feedback (CF) was effective or not, and whether the effectiveness of written (CF) vary according to some variables (type of errors, type of written CF strategy and proficiency level of students), while the (qualitative) provides answers to the questions about how the participants processed different types of feedback and why some errors were repeated in spite of the written (CF) that the students have received.

Participants

A hundred seventy-four students at Al-Makassed School and Al Irshad Public School for Girls are included in this study. There are four experimental classes (two from each school) and two control classes (one from each school). The two experimental classes at Al-Makassed School contain 54 students (27 each) and the control class contains 29 students. On the other hand, at Al Irshad Public School there are 31 students in the control class and 60 students in the two experimental classes (30 each).

Instruments

To obtain the required data for the research, a triangulation of instruments was implemented. This included a proficiency test to measure the initial level of the 174 participants, a pre-test to assess their baseline knowledge, and immediate and delayed post-tests to measure their learning and retention. Furthermore, writing tasks were administered to evaluate their ability to correctly apply comparatives and prepositions of space in meaningful writing.

Procedures

Data Collection Procedure

Data for this mixed-methods study will be gathered from experimental and control groups using a pre-test, analysis of revisions, an immediate post-test, and a delayed post-test. The experiment will involve six sixth-grade classes, with three classes each from a private and a public school. Within each school type, the classes will be assigned to one of three conditions: direct written corrective feedback, indirect written corrective feedback, or a control group receiving no feedback.

Data Analysis Procedure

To answer the study's research questions, data will be collected through a triangulation of instruments: writing tasks, a teachers' survey, a students' questionnaire and a classroom observation.

The SPSS Statistics 20 will be used to conduct data analysis. Cohen's kappa coefficient (κ), a statistic that is used to measure inter-rater reliability for qualitative items, will be used to examine the reliability. Kappa will be calculated as 0.9 (<0.05) for the number of quantifiers, 0.88 (<0 .05) for the erroneous sentences, and 0.85 (< 0.05) for the frequency of corrections.

Validity of the Instruments

Validity is defined as "the extent to which a concept is accurately measured in a quantitative study" (Heale & Twycross, 2015, p. 66). Validity is demonstrated when there is a clear relationship between the tests conducted and what is meant to be measured (Drost, 2011, p.114). Internal validity and external validity determine whether a study is meaningful and trustworthy and help in assessing research findings (Middleton, 2023).

Reliability of the Instruments

Reliability is defined as "a concept describing how reproducible or replicable a study is" Heale (2015). Inter-rater reliability is defined as "a measure of the consistency and agreement between two or more observers in their assessments, judgments, or ratings of a particular phenomenon or behavior" Heale (2015).

In this study, the researcher collaborated with two trained teachers from each school Al-Makaseed School and Al-Irshad Public School to perform an interrater reliability check. These teachers were provided with the correction criteria.

The researcher shared the choice of statistical tests with a statistician at a private company. Another expert statistician had a look at the quasi- experimental analysis for further checking and feedback. Both assured that the researcher had used appropriate tests to analyze the data. Also, to achieve instrument reliability, the researcher contacted several teachers to determine whether the tests (pictures and sentences) were appropriate for seven graders. The proficiency level test was designed by the researcher to suit the level of the students and be culturally appropriate. The proficiency test was further checked by the class teacher for appropriateness.

Research Findings

Analysis and Findings Regarding the Comparative

The participants' understanding of the comparative in the three different classes (direct, indirect and control) was evaluated through four tests (pretest, revision, immediate post-test and delayed post-test) using ANOVA repeatedly. As shown in figures 1 and 2, there was no significant difference between the accuracy scores across the four tests at the private school and the public school respectively.

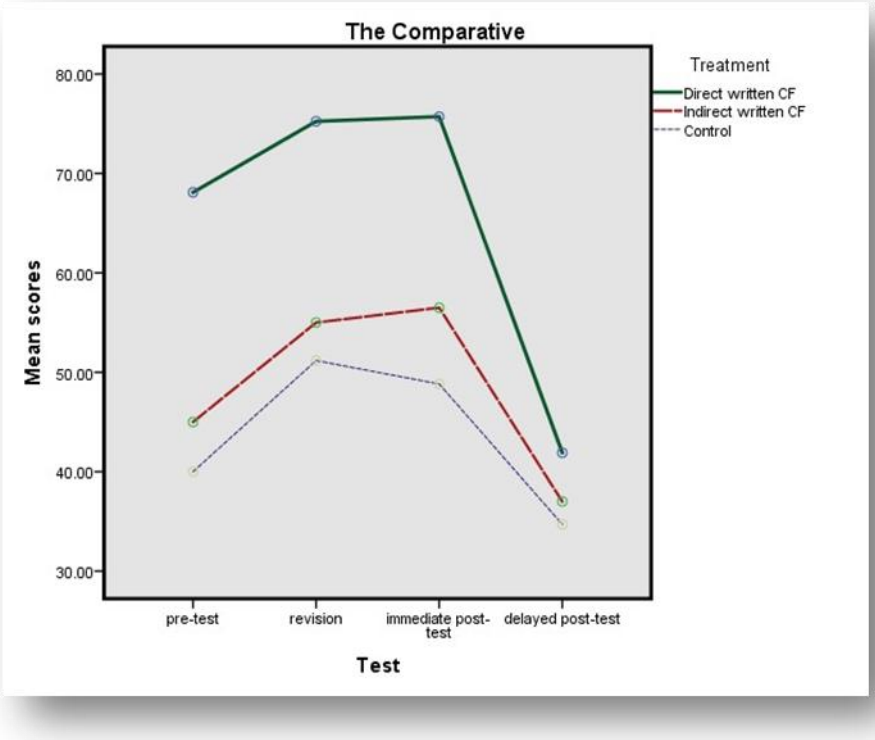

Figure 1: Performance by the Three Classes over Time Regarding Comparative at the Private School

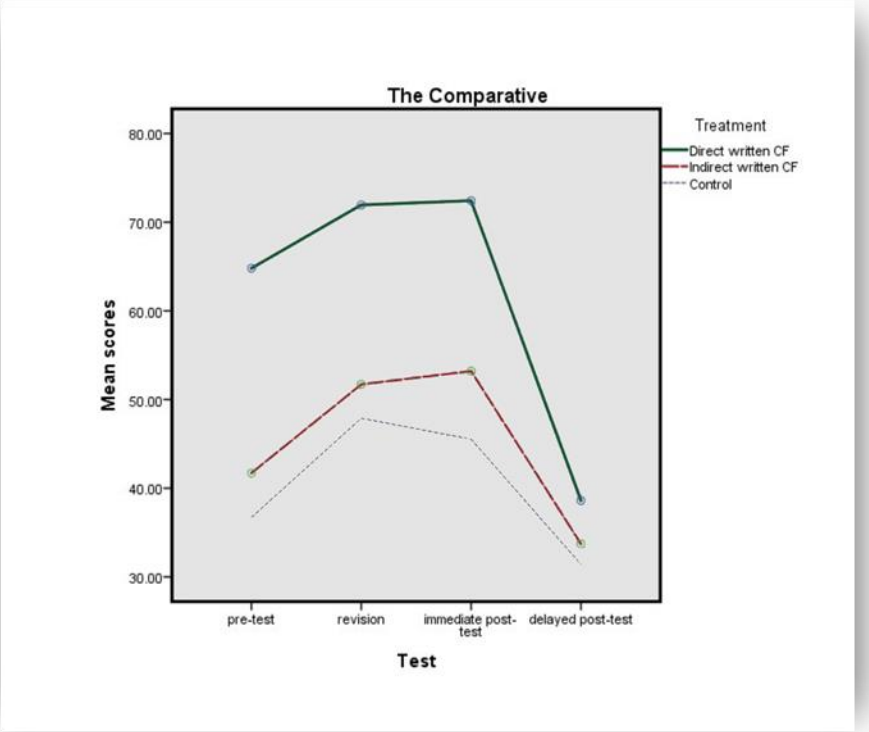

Figure 2: Performance by the Three Classes over Time Regarding Comparative at the Public School

In Figures 1 and 2, the results showed varying progress in the students' performance during revision in all classes. The highest improvement was in the direct class. However, there was a decline in the students' performance in the immediate post-test in the control class, yet a slight incline in the direct and indirect classes. Finally, a sharp decline was recorded in the delayed post-test in the three classes. The period between revision and the delayed post-test might be a possible explanation for such result. The students might need refreshment for the comparative rules.

Conclusion

Most prior research on written corrective feedback (CF) has centered on grammatical structures students already knew. These studies often used existing classes, capitalizing on the participants' familiarity with the targeted language, potentially leading to higher initial accuracy and influencing the observed long-term effects. In contrast, this study found only a short-term benefit of both direct and indirect written CF on the comparative, with neither treatment leading to lasting improvement in newly-learned comparatives and prepositions of space in either school. These findings necessitate further research to explore the effectiveness of direct and indirect

written CF on different categories of new linguistic structures before firm conclusions can be drawn about its ability to improve learners' accuracy with newly acquired grammar.

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