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Boomerang Your Way to Better Writing: The Impact of Student-Centered Corrective Feedback on Young ESL Learners' Writing Skills, Motivation, and Perceptions

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DOCTORAL DISSERTATION

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DECLARATION

I hereby declare that this dissertation, submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, is the result of my own original work and independent research, except where otherwise acknowledged through proper citation. This work has not been submitted, in whole or in part, for any other academic degree or qualification at *Universitat Autònoma de Barcelona* or any other institution degree at or any other universities.

Signature:

Shoghig Kaloustian

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LIST OF ABBREVIATIONS

CA	Contrastive Analysis
CAF	Complexity, Accuracy, and Fluency
CF	Corrective Feedback
CLIL	Content and Language Integrated Learning
Del	Delayed
S_Drop	Verb Drop
V_Drop	Subject Drop
DTA	Deductive Thematic Analysis
EA	Error Analysis
ED	Educator
Efft	Effort
EFL	English as a Foreign Language
ESL	English as a Second Language
FL	Foreign Language
FLA	Foreign Language Acquisition
ID	Individual Difference
Imp	Importance
ISLA	Instructed Second Language Acquisition
LLS	Language Learning Strategies
L1	First Language

L2	Second Language
Mot	Motivation
NF	No Feedback
PE	Peer
% Num_Words	Percentage Number of Words
% Total Num_Err	Percentage Number of Errors
Total_Err	Total Number of Errors
RTA	Reflexive Thematic Analysis
SDT	Self-Determination Theory
SE	Self
SLL	Second Language Learners
SOS	Student Opinion Scale
T	Time
3rd p_sing	Third Person Singular
WCF	Written Corrective Feedback

ABSTRACT

English as a Second Language (ESL) young learners' writing improvement hinges mostly on educators' indirect, unfocused written corrective feedback (WCF) (Bitchener & Knoch, 2010, Ferris et al., 2013). While considerable research has focused on the impact of educators' WCF on second language (L2) writing accuracy, limited attention has been paid to young ESL learners' engagement with WCF and their attitudes and perceptions, especially when learners themselves take an active role in the correction process. Research highlights that learners who are engaged in self and peer correction may experience higher interest, more effort, and stronger motivation (Ferris, 2006; Hyland, 2000; Ryan & Deci, 2000; Sheen, 2007). This dissertation investigates the effects of a novel written corrective feedback approach, the *Boomerang Feedback Strategy*, on the L2 writing accuracy, interest, effort, overall motivation, and perceptions of young ESL learners. The *Boomerang Feedback Strategy* shifts away from traditional teacher-centered correction by integrating student-centered practices: self-correction and peer-correction, alongside teacher input. The central goal is to determine whether learner involvement in WCF leads to improved grammatical accuracy, greater motivation, and more favorable attitudes towards WCF. Ninety-six fifth-grade ESL learners from three private schools in Lebanon participated in this pre-treatment/post-treatment/delayed post-treatment quasi-experimental study. They were randomly assigned to one of four groups: a no-feedback control group, a teacher-only feedback group, a teacher+self+teacher (SE) feedback group, and a teacher+peer+teacher (PE) feedback group. Each group received a different type of WCF over a series of three writing tasks. Data were collected through pre-test, post-test, and delayed post-test writing assessments to measure grammatical

accuracy, while motivation and attitudes were evaluated using pre and post motivation questionnaires, post-intervention perception surveys, and focus group interviews.

Quantitative findings revealed that both self and peer-correction groups outperformed the teacher-only and control groups in terms of grammatical accuracy over time. The SE group recorded the highest reduction in error rates between pre-test and delayed post-test, demonstrating more sustained improvement in L2 writing accuracy. In terms of motivation, results showed that learners in the SE group exhibited significantly higher levels of interest and effort post-intervention compared to the educator and no feedback groups, indicating that learner autonomy in the feedback process contributes positively to emotional and cognitive engagement. Learner perceptions, as captured through surveys and qualitative interviews, further emphasized a preference for active participation in feedback. The majority of students in the SE and PE groups expressed enthusiasm for engaging directly in correcting their own or peers' writing. Many reported feeling more responsible, confident, and independent when involved in the feedback loop. Particularly in the SE group, learners appreciated the opportunity to reflect on their mistakes and internalize grammatical rules through guided self-revision. In the PE group, students highlighted the benefits of collaboration and learning from others' writing challenges, although a few expressed concerns about peer accuracy. Overall, learners in the experimental groups reported positive attitudes towards WCF and the *Boomerang Feedback Strategy* showing a distinct preference for interactive, student-centered approaches. These findings provide empirical support for the pedagogical shift towards involving young ESL learners more directly in the feedback process. The *Boomerang Feedback Strategy* holds promising potential in enhancing L2 writing accuracy, promoting learner motivation, and shaping positive attitudes towards feedback. This thesis contributes to the growing literature advocating for learner agency and active engagement in language learning and

underscores the importance of tailoring corrective feedback practices to the developmental and cognitive needs and preferences of young learners.

Keywords: written corrective feedback, L2 writing language accuracy, young ESL learners, learner motivation, learner perceptions, self-correction, peer-correction

CHAPTER 1

INTRODUCTION

Teaching writing in a second language (L2) is a complex process that requires linguistic proficiency as well as explicit instruction in grammar, vocabulary, organization, and rhetorical conventions. At the same time, educators must adopt effective pedagogical approaches that balance accuracy with fluency, foster learner autonomy, and provide meaningful feedback. The concept of "learning to write" remains a key challenge for L2 instructors, who must navigate the complexities of guiding students through the demanding process of written composition in a non-native language. For young L2 learners, mastering writing involves overcoming multiple challenges simultaneously such as limited lexical resources and transfer errors from their first language (L1). This study explores L2 writing instruction through a process-based approach, corrective feedback types, and the role of learner autonomy with the aim of enhancing students' writing competence.

Particularly in fostering grammatical accuracy, writing immerges as a crucial component of second language development (Roca de Larios, Manchón, & Murphy, 2006). Even within an L1 language setting, writing is often perceived as a complex skill requiring sustained attention to various elements, including content, structure, coherence, and linguistic accuracy (Kellog, 1994; Schoonen et al., 2003). The writing process demands that learners actively plan, organize, read, and revise their work to meet the necessary standards of written communication (Flower & Hayes, 1980), and mastering writing skills in English as an L2 presents additional challenges, particularly for younger learners (Ellis, 2003). Despite these difficulties, writing is widely recognized as a fundamental aspect of language acquisition, playing an essential role in L2 development.

Encouraging young learners to write and engage in correction is central to this study, which focuses on "writing and correcting to learn." The impact of written corrective feedback (WCF) on the grammatical accuracy of second language learners' writing has been extensively researched (e.g., Bitchener, 2008; Bitchener & Knoch, 2008, 2010; Chandler, 2003; Ellis et al., 2008; Ferris, 1999, 2006; Kepner, 1991; Lalande, 1982; Robb et al., 1986; Semke, 1984; Sheen et al., 2009; Sheppard, 1992; Truscott, 1996, 2007). Although findings remain inconclusive, educators continue to view the provision of WCF on student writing as a fundamental aspect of language instruction, dedicating significant time to marking, identifying errors, and providing feedback on both content and organization. As a result, corrective feedback remains a central topic of interest among researchers and educators in L2 language learning contexts.

Although Truscott, in his controversial review article (1996), strongly criticized written feedback and dismissed error feedback as not only useless, but also as harmful to learners' writing accuracy, Ferris (1999), on the other hand, argued that error correction can benefit learners if handled with care. Since grammar rules differ in their characteristics—some being strictly rule-based while others are more flexible—the effectiveness of correction largely depends on the type of L2 feature being addressed (Bitchener & Knoch, 2009). Truscott also overlooked the potential benefits of peer and self-feedback and learner agency, applying his conclusions broadly without considering the potential positive effects on learners.

Additionally, recent research challenges the notion of feedback as a one-way transmission from teacher to student; instead, learners should engage with feedback actively to improve their writing and learning strategies (Boud & Molloy, 2013; Carless, 2015; Hattie & Timperley, 2007). This shift recognizes students as active participants in the learning process rather than passive recipients of corrections (Hoo & Hughes, 2017). Learner autonomy involves a range of self-

regulatory behaviors that, through consistent practice, become an integral part of the knowledge and skills being acquired. Within language classrooms, fostering autonomy implies that learners use the target language not only as a medium for communication but also as a means of learning and self-reflection (Little, 2003). Despite extensive discussions, publications, and educational policies, the successful integration of learner autonomy in language classrooms remains rare.

1.1 Teaching writing in Lebanon

The present study was carried out in Lebanese-Armenian schools. When teaching writing skills to young, primary education learners aged between 10 to 12, educators in Lebanese-Armenian schools apply the Product Approach (Baroud, 2022). This approach generally emphasizes linguistic competence, including the appropriate use of vocabulary, grammar rules, and cohesive elements in the target language (Tribble, 2003). The Product Approach is primarily concerned with the final written product rather than the steps involved in creating it. As a traditional, text-based method, it remains a common practice in Lebanese ESL/EFL classrooms (Grabe & Kaplan, 1996). In Lebanon, this approach focuses heavily on form and accuracy, assessing young learners' grasp of grammatical structures through their written output (Richards, 1990). Given its reliance on language input, the approach encourages students to imitate provided models, reinforcing the view that writing is fundamentally about mastering grammar structures and vocabulary selection. Consequently, students are often guided to replicate teacher- or textbook-provided texts, with the accuracy of the final product regarded as a key indicator of language proficiency (McDonough & Shaw, 2003).

The instructional materials used in the Product Approach emphasize the precision of students' final written work, incorporating elements such as descriptive writing and topic sentence

development (Richards & Lockhart, 1995). Lebanese-Armenian educators teaching young learners regard grammatical accuracy as essential, leading them to rely heavily on materials that systematically introduce and reinforce grammatical structures. These materials typically focus on tenses, adjectives, and sentence patterns, which are introduced progressively in the syllabus. The approach follows a structured sequence consisting of four stages: familiarization, controlled writing, guided writing, and free writing. During familiarization, students are introduced to specific grammatical structures and vocabulary. The controlled writing stage then requires them to apply this knowledge in structured sentence-writing exercises. During the guided writing phase, learners are provided with a model text and given a related writing assignment to complete. Finally, the free writing stage allows learners to apply their knowledge in contextualized writing task such as composing descriptive pieces, letters, or narrative writing.

This structured approach is commonly applied to teaching descriptive writing. For example, when tasked with describing a person, students first familiarize themselves with relevant vocabulary, such as adjectives. In the controlled and guided writing stages, they write simple sentences or complete guided exercises based on visual prompts. In the final free writing phase, they independently compose a descriptive passage about an inspiring individual, drawing upon the models introduced earlier (Badger & White, 2000).

In this approach, teachers play a central role in reinforcing linguistic accuracy through pattern drills, memorization, and structural repetition (Cook, 1992) and student engagement in interactive or critical thinking activities is often minimal (Grabe & Kaplan, 1996). The prevalence of the Product Approach in Lebanese classrooms is largely due to their teacher-centered nature, where instructors primarily dictate content, and students passively record notes for future reference. Textbooks serve as the primary learning resource, and writing tasks rarely extend

beyond sentence-level exercises. As a result, classroom instruction prioritizes explicit grammar teaching—sometimes involving direct translation into students' native language—over fostering fluency and communicative competence in writing. This approach values students' theoretical knowledge of grammar more than their ability to produce cohesive, extended texts.

Despite its structured nature, the Product Approach has notable limitations. Firstly, students are primarily passive learners, focusing on producing correct responses rather than engaging in analytical thinking. Secondly, the approach downplays the importance of the cognitive processes involved in writing and language acquisition. Finally, it restricts opportunities for meaningful interaction and critical engagement, preventing students from developing writing fluency beyond the sentence level.

This study aimed to address the limitations inherent in the Product Approach to writing and enhance the writing proficiency of young ESL learners by implementing various types of written corrective feedback in a sequential manner. The teaching intervention was designed to foster learner engagement and agency, thereby promoting the acquisition and transfer of grammatical rules to writing.

1.2 Statement of the problem: Challenges for Lebanese-Armenian learners

Encouraging young learners to engage in L2 writing as well as taking active part in the correction process would certainly improve the Product Approach used in the Lebanese context. Many young learners, and Lebanese-Armenian learners specifically, commonly perceive their writing skills as poor and often seek guidance from their teachers on how to improve them. The learners in this study encounter four languages at an early age, Armenian being their mother tongue

and Arabic the first language of the country. In addition to the mentioned L1 and L2, these young learners encounter English as an additional L2 and French as a FL.

Moving to feedback, in traditional classroom settings, student improvement in writing is hinged mostly on the educators' unfocused WCF (Bitchener, 2012; Ferris, 2010) although research indicates that focused feedback may better contribute to improvement in grammatical accuracy in ESL writing (Ellis et al., 2008; Sheen, 2007). Research also shows that learners who are involved in the process of correction through self or peer-correction seem to show significant improvement in ESL writing (Schunk & Zimmerman, 1994; Zimmerman, 1989).

As mentioned, it is also important to bear in mind that the notion of feedback as information transmitted from educator to learner as passive recipient has been recently critiqued, as corrective feedback on its own may no longer be enough for ESL learners to improve their language skills (Hattie & Timperley 2007). It is of ultimate necessity that learners be able to make sense of feedback and use it to enhance the quality of their language as well as their learning strategies (Boud & Molloy 2013; Carless 2015). In this sense, learners are hence perceived as active participants in the feedback process, rather than passive recipients of information.

Regarding accuracy in the L2, the majority of learners commit grammatical errors when writing in English. They also tend to lack knowledge of the appropriate vocabulary for particular writing tasks. Another major aspect leading to lack of practice is that in most Armenian schools, all subjects are taught in the Armenian language up to grade 4 and sometimes grade 6 of primary education. Once the learner is at the intermediate level (grade 6), all subjects are taught in English or Arabic. Furthermore, learners typically lack sufficient practice in writing in both their first language and the target language. In Armenian language classes, writing instruction predominantly focuses on micro-level components, aiming to apply grammatical rules to construct accurate

sentences. Additionally, instructors commonly presume that learners possess the necessary skills to produce longer written compositions, as Armenian is their mother tongue.

An additional issue underlying the challenges faced by young Lebanese-Armenian learners in developing writing skills is the interference of their native language. In L2 learning contexts and particularly within the Lebanese-Armenian context, English contrasts sharply with the learners' L1. Because learners frequently draft their writing in their L1 before translating it into English, this approach tends to undermine the quality of their English compositions. Consequently, they often carry over elements from their mother tongue such as ideas, phrases, idiomatic expressions, meanings, and syntactic structures into their English writing leading to interference and errors.

1.3 Aims of the study and research gaps

The present research explores the development of language accuracy in written production of young ESL Lebanese learners conditioned by the type of corrective feedback they receive. The predominant purpose of this study is to investigate the impact of focused indirect written corrective feedback together with the *Boomerang Feedback Strategy*, which is a collaborative method developed by the researcher actively involving learners in the correction process. Furthermore, the study aims to explore how the two versions of the *Boomerang Feedback Strategy*, educator-self and educator-peer correction may impact learners' motivation to become engaged with corrective feedback in addition to learners' perceptions of focused and indirect feedback, and the *Boomerang Feedback Strategy* employed. More specifically, the study analyses the development of learners' overall accuracy focusing on five L2 grammar common mistakes, namely articles, third person singular, prepositions, verb-drop and subject drop, during the corrective feedback sessions and

when producing new texts over a three-month period (pre, post, and delayed-post). This study also explores learners' active engagement with corrective feedback to deepen understanding of how students learn from it, their perceptions of different types of corrective feedback, the challenges they face when correcting both their own and their peers' errors, and their preferences and attitudes toward the various forms of feedback used.

Despite the growing body of research on written corrective feedback (WCF) in both foreign and second language learning contexts, further investigation is required to evaluate the effectiveness of different WCF types, particularly peer and self-correction. Responding to the calls for more focused inquiry by Van Beuningen (2012) and Ferris (2013), this study aims to add to the existing studies by exploring not only the impact of various feedback modalities but also learners' active engagement and development of agency in the feedback process.

The findings of this study will provide educators with critical insights that will enhance the design and delivery of WCF, ultimately contributing to the more effective development of students' writing proficiency. Specifically, the current study will make a contribution towards a clearer understanding of how young students process WCF during the revision stage and how they transfer gained knowledge to future writing tsks. Additionally, the findings of this study will contribute valuable insights into the strategic approaches students use when responding to WCF, offering a deeper understanding of the difficulties they encounter. By identifying students' preferred types of feedback and the underlying reasons for these preferences, this research will help educators tailor their feedback approaches to better support learners.

Although previous studies have statistically compared error rates across consecutive writing tasks to measure improvement, such research does not establish a direct causal link between error correction and accuracy gains. In contrast, qualitative research focusing on

individual learners may provide a better understanding of how learners process corrections and whether these corrections lead to improved accuracy. However, few studies have examined the direct relationship between learner involvement and written corrective feedback (Ferris, 2010; Flahive, 2010; Goldstein, 2006, 2010; Hyland &Hyland, 2006a; Reynolds, 2010). Additionally, while some studies (Cahyono & Amira, 2017; Guinness, et al., 2020; Lee, I., 2016; Qi & Lapkin, 2001; Storch & Wigglesworth, 2010) have looked into how students revise texts, findings indicate that individual learners respond differently to feedback. Recent case studies (Mafulah & Basthomi, 2021; Uzun & Koksa, 2020; Wodim et al., 2022) exploring the impact of feedback on new writing tasks, specifically focused indirect WCF, suggest that analyzing learners' written production in isolation does not give enough sufficient insight into whether WCF leads to long-term writing improvements. Despite these valuable contributions, a research gap persists in understanding how individual learners receive, process, and apply WCF over time.

1.4 Research Questions

To date, evidence of whether corrective feedback should be provided, as well as how it should be delivered remains inconclusive. The present study focuses on the what type, how, and why of WCF provision. It aims to contribute to the written corrective feedback debate by adopting a quasi-experimental design and addressing the following research questions:

(1) What effect does the type of corrective feedback have on young ESL learners' accuracy in writing?

(2) What effect does the *Boomerang Feedback Strategy* have on young learners' motivation to engage in the correction process?

(3) What are young ESL learners' preferences for different types of corrective feedback, and what are their attitudes towards the *Boomerang Feedback Strategy*?

For research question 1, we hypothesize that young ESL learners who participate in the *Boomerang Feedback Strategy* (both with self-assessment and with peer-assessment) will improve their accuracy in writing more than the educator and the control groups as a result of being involved in feedback provision. Previous research indicates that WCF provision positively impacts writing in the L2 (Deng et al. 2022; Rahimi, 2019), with students participating in peer correction showing more improvement than those participating in self-correction (Dewi 2020; Yanti et al., 2022).

For research question 2, we hypothesize that young ESL learners who participate in the *Boomerang Feedback Strategy* (both with self-assessment and with peer-assessment) will be more motivated and therefore, demonstrate more authentic involvement in the correction process than learners who only receive the educators' feedback. Previous research indicates that learners who are involved in the process of corrective feedback show increased levels of motivation (Cahyono & Amrina, 2016; Hey-Cunningham, Ward, & Miller, 2021; Ma, Weng & Teng, 2021; Ryan & Deci, 2000; Schunk & Zimmerman, 1994; Tai et al., 2022; Zimmerman, 1989).

For research question 3, we hypothesize that young ESL learners who participate in the *Boomerang Feedback Strategy* (both with self-correction and with peer-correction) will have positive attitudes towards the teaching intervention. Previous research highlights L2 learners' positive attitude and favorable outlook regarding WCF (Bitchener, 2008; Chandler, 2003; Ellis et al., 2008; Ferris, 1999, 2006). In addition, we hypothesize that the children's preferences for types of corrective feedback will vary depending on the intervention they have received (Altstaedter & Doolittle, 2014; Maftoon et al., 2015; Park et al., 2016; Ratih &Abidah, 2022).

1.5 Thesis Outline

This thesis consists of eight chapters. The Introduction justifies the study, presenting the Armenian-Lebanese teaching context, the aims and the research questions, together with their hypotheses. Chapter 2, 3 and 4 present the theoretical and empirical background to this study. They review the debates underpinning the process of L2 writing, the use of written corrective feedback in L2 classrooms and L2 motivation and attitudes, as well as the findings of earlier research. Chapter 5 presents the research methodology of the study including research design, the different approaches employed in the study, the participants and the different instruments utilized to collect and analyze the data as well as data analysis and ethical considerations. Chapter 6 presents the results of the quantitative and qualitative data analysis. Chapter 7 provides a thorough discussion of the results and teaching implications and Chapter 8 summarizes the contribution of the study and draws concluding remarks, as well as acknowledging a number of limitations that should be addressed in future research.

CHAPTER 2

L2 WRITING DEVELOPMENT

This chapter reviews recent research on writing and writing instruction in relation to the ESL learner. Particular attention is given to second language (L2) writing development, language accuracy in L2 writing, learners' difficulties in L2 writing and grammar instruction for writing.

2.1 The study of writing in ESL contexts

Writing has always been considered an important communication skill which plays a vital role in the acquisition of a second language and which leads to academic success (Chastain, 1988, as cited in Simin & Tavangar, 2009). The development of writing has been perceived to be a complex and multidimensional skill because of its ever-changing nature affecting the learners' strategic behaviour, knowledge, and motivation (Graham, Harris, & Mason, 2005). Moreover, this deemed complexity of writing necessitates an interaction between learners' proficiency, knowledge, skills, social and culture experiences, as well as the identity of the writer (Archibald & Jeffery, 2000; Cumming, 1998). In addition, most learners perceive writing as being a complicated and challenging task because of its active and productive nature (Yavuz & Genc, 1998). On the other hand, writing, which is a cognitive activity, can be taught, and educators can contribute to teaching learners the necessary skills to develop and improve their writing skills and strategies (Gupta & Woldemariam, 2011). For this reason, written production is considered to be a good means for assessment since learners' frail writing skills may endanger their academic success (Tan, 2011).

The writing task becomes even more complex and demanding when it comes to writing in a second and/or foreign language. The root cause for this is that writing in an L2 is dissimilar to writing in an L1 (Silva, 1993). These differences are partly the product of cognitive dissimilarities (Cumming, 1998; Zimmerman, 2000), variations in proficiency in the L2 (Cumming, 1989), and knowledge of the target language genres and the associated sociocultural expectations (Silva, Leki & Carson, 1997; Swales, 1990). An example of the cognitive aspect in L2 production, which may be overwhelming for learners, is the production of clear and coherent ideas in the L2. In addition, composing intelligible, logical arguments and displaying clarity of thought in writing are two other important cognitive facets which might be problematic for writers in the L2 (Hayes & Flower 1980). These challenges may especially apply to learners with low levels of L2 proficiency because low proficiency learners may have difficulty visualizing the complete flow of their L2 texts. Furthermore, these learners may be unable to logically organize arguments in their L2 writings or produce complex grammatical structures (Hinkel, 2002; Tsuji, 2016).

Added to the above is the socio-cognitive view concerning the writers' experiences, expectations and values in the L1 (Bell, 1995), and which sees writing as being a socially situated, communicative act (Flower, 1994). Moreover, this facet highlights that knowledge is represented through abstract mental schemes which are of a culture-specific nature. This aspect may trigger difficulties when writing texts in the L2; therefore, knowing how to write in an L1 does not automatically mean that learners are able to do the same in the L2 (Kern, 2000). For this reason, the impact of social and cultural experiences learners have had in their L1 must always be taken into consideration.

Although the field of L2 writing is relatively recent, writing in a second language has always been a challenging skill for L2 learners and an intensively explored topic for second

language researchers. In the late 1950s and the early 1960s, interest in L2 writing started with institutions of higher education in North America and targeted international L2 writers. In order to tend to the needs of university students, the past decade witnessed heightened interest in the development of L2 writing. This is especially true in English speaking countries. Moreover, many pedagogies and theoretical directions of L2 writing developed as detachments of L1 writing theories, which laid the grounds for a broad conceptualization of writing in a second language. This in turn leads to pedagogical implications that address different L2 writing concerns. To better understand the development of L2 writing, the next section commences with a review of the theoretical foundations for a more comprehensive view of L2 writing.

2.2 Second language writing theories

Second language writing theories have evolved over the years, with researchers trying to understand the complex process of second language writing and how it can be taught effectively. This section provides an overview of theories as well as empirical studies on second language writing theories.

To begin with, we should draw a brief portrayal of L1 writing theories to highlight the influence those theories have had on L2 writing. Berlin (1982/1988), Gere, (1986), aBruffee (1986), Bizzel (1982), and Susser (1994) put forth three groups of writing theories: objective, subjective, transactional, and expressionist. The first, objective theories of writing, stress that writing is based on the notion that contemporary Traditional Rhetoric, an art of using language to persuade others is considered the only good method that helps advance western, academic writing. Alternatively, Subjective theories distinguish reality as being inherent within the individual, rejecting focus on form and accentuating the idea of writing as an act of creativity whereby learners

freely express their thoughts to achieve self-discovery. Subjective theories on the other hand stress that writing should involve the authentic voices of the learners (Raimes, 1991; Silva, 1990). Other theories like the Expressionist theories, whose writing pedagogy has been a form of resistance to the dominant class, stress that writing is a way by which learners explore their social positions (Faigley, 1986; Raimes, 1991; Silva, 1990). The expressivist approach started in the 1960s and was dominant in the 1970s and 1980s in American college writing classes. It is still a strong direction in the teaching of writing as many teachers, theorists and practitioners strongly defend it. It is widely accepted that the expressionist approach is the most widespread post-structural approach in teaching (Elbow, 1973). In this model, the role of the educator is to create a positive and supportive environment to motivate learners to think on their own and formulate their own ideas (Hyland, 2003; Raimes, 1991; Silva, 1990). This viewpoint proposes that writing is developmental and thus, it does not need a model (Raimes, 1991). Regarding Transactional theories, they consider reality to be circumstantial and created by the community (Berlin, 1987/1988; Bruffee, 1986; Bizzel, 1982; Susser, 1994); therefore, writing which is moulded by the context in which it is practiced has a socio-political and ideological nature. In this sense, academic writing is actually a reflection of the discourses of prevailing communities in an effort to suppress unconventional discourses which carry less power. Social constructionists believe that in order to construct a community that indulges in a more inclusive and pluralistic discourse, academic writing should be resisted, negotiated, and modified (Berlin, 1987/1988; Bizzel, 1982; Bruffee, 1983/1986; Susser, 1994).

This brings us to L2 writing theories and pedagogies which have been influenced by the above mentioned directions in L1 composition. Different pedagogical views of L2 writing have been proposed, each centring around some aspects to L2 writing. We start with the Structural

Approaches which started off in the sixties followed by the Audio-Lingual Method in L2 writing. This was brought about from the merger of Structural Linguistics and Behaviourist learning theories (Johns, 1990; Raimes, 1991).

Behaviourist theories are based on habit formation through controlled writing exercises. The method of instruction consists in providing learners with formulaic templates or paragraphs highlighting a topic sentence, three supporting details, and a concluding sentence. The method focuses on sentence level production and trains learners using mechanical language practices like sentence-combining and substitution exercises (Pincas, 1982). This approach to teaching writing did not enable learners to produce free compositions nor to produce original sentences (Mastuda, 2003).

With the Structural Approach to writing, focus on form, explicit teaching of grammar structures, vocabulary, and the essay patterns make up the indispensable building blocks for writing. Here, writers and readers make use of contextual factors and of their previous knowledge to construct meaning from the written text. On the other hand, writing cannot depend solely on this knowledge because the imitating of writing patterns would lead to fragmentary writing and may not be transferred to writing for real-life purposes. Therefore, putting the emphasis on form decontextualizes writing and disengages it from the personal experiences of the writer. Writers manipulate forms to produce real-life ideas (Hyland, 2003; Raimes, 1991).

Regarding the Audio-Lingual method, it favoured speech and considered it primary. As for written composition which mostly consisted of fill-in the blanks, substitutions, transformation, and completions, writing was seen as reinforcement in order to achieve grammatical accuracy and improve vocabulary use (Raimes, 1991). The aim for writing drills was to push for the accurate application of grammatical rules. These theories regarded the development of writing as being the

result of habit-formation through the imitation of models provided by the teacher (Hyland, 2003; Raimes, 1991; Silva, 1990). Thus, these focus-based theories neglected the vast complexity of writing (Derakhshan, 1996).

A decade later, as a response to the critiques of the Audio-lingual Method, the Process Writing Approach entered into the field of L2 writing through the Current Traditional Rhetoric model, taking over language teaching and calling for bridging of the gap between controlled writing and free writing (Hyland, 2003; Raimes, 1991; Silva, 1990). Educators, in an effort to teach the structural nature of paragraphs, recognized the need to teach more advanced practices of writing beyond the sentence level. The introduction of the proposed syntactic structure to paragraph formation resulted in the appearance of Contrastive Rhetoric by Kaplan (1966). Kaplan (1996) introduced the concept of Contrastive Rhetoric describing writing as linear in contrast to other nonlinear rhetorical patterns. He stated that the rhetoric of L2 learners takes the form of organizing syntactic units into longer patterns indicating that L2 learners' sequence of thought does not follow the expectations of native readers. Kaplan promoted the idea of more pattern drills at the rhetorical level instead of on the syntactic level because he observed that L1 interference spreads beyond the sentence level.

The Current Traditional Rhetoric combines the principles in L1 writing and Kaplan's Theory of Contrastive Rhetoric (Silva, 1990). Based on this viewpoint, writing basically stands on organisation of sentences and paragraphs into prescribed arrangements. Kaplan's approach, which focuses on form and which is based on the imitation of an approved paragraph or essay form has led to the teaching and using of topic sentences and supporting details, the writing of an outline, completing a paragraph, and reordering scrambled sentences to form paragraphs (Raimes, 1991).

As a counter-response to the Current Traditional Rhetoric, Process Writing was introduced to the field of L2 writing by Silva (1990). In 1976, Zamel became a pioneer when she opted for the application of L1 research to L2 writing (Susser, 1994). With this approach, the focus was shifted onto the writer, and the emphasis was placed on the process of writing such as coming up with multiple drafts (Raimes, 1991). L2 writing instruction was seen as a problem-solving activity where writers had to use mental strategies to accomplish their goals. Due to the fact that the Expressionists' view of writing had not affected L2 writing in substantial ways (Silva, 1990), this cognitive direction in the process movement came forth in the 1980's. The Cognitivist theories profess that writing in an L2 is a problem-solving activity whereby writers have to use cognitive processes to attain their goals. Some of these complex cognitive operations consist of planning, drafting, revising, and editing a piece of writing (Hyland, 2003; Raimes, 1991, 2010). Hayes and Flower (1980) came up with a self-monitoring method of sub-processes of writing such as planning, organizing, and goal setting which became highly influential. The Cognitivists believe that classroom activities that encouraged learners to make use of strategies would help them produce better writing in the L2 (Seow, 2010; Silva, 1990). Examples of suggested activities are journal writing, peer collaboration, draft revision, and attention to content before form. In this theoretical framework, the job of the educator is to allow learners to select topics, to generate their own ideas, to write, to revise, and to rewrite. Educators, in this context, provide feedback on written productions.

In 1986, frustration with the Process Approach led to a shift to Writing for Academic Purposes which includes Content-based Instruction and English for Academic Purposes. In "Content-based Instruction, an L2 course might be attached to a content course in the adjunct model or language courses might be grouped with courses of other disciplines" (Raimes, 1991, p.

411). With this approach, learners get support with the language as well as the thinking processes. Literature and language culture are excluded in favor of the subject matter the L2 learners are studying. The educator determines what academic content is most appropriate, and learners are given the opportunity to do some pre-writing tasks and to revise (Raimes, 1991). In English for Academic Purposes, the focus is on the expectations of the academic readers. Here, educators conduct a theme-based class which is not necessarily linked to a content course. This approach to teaching stresses that learners should be socialized into the academic community (Raimes, 1991).

An additional group of theories, The Social Constructionist Theories, (Berlin, 1982), later emerged as a reaction to the preceding theories of writing. The social constructionist theories of writing are based on the concept that knowledge and reality are probabilistic, dynamic, and dialectic. They believe that the communication process is shaped by the audience, the author, and reality which exists in a certain community at the time of this interaction (Berlin, 1982/1987/1988). In turn, this interaction impacts how people write (Bruffee, 1987). The Social Constructionists disagree with the objective theories for their deterministic views of reality and criticise their prescriptive approach to writing. They also emphasize the limitation of the Subjective Approach for its inability to modify the prescriptive nature of the Current Traditional Rhetoric. The Social Constructionists envision academic writing as product oriented, and one that adopts the Current Traditional Rhetoric in both L1 and L2 writing. Novel orientations of social constructionism have emerged, some of which call for more attention to the immediate settings in which a text is written, and others that refute the idea of an existing, individual author (Faigley, 1983).

In conclusion, for a theory to represent a comprehensive view of writing, it should encompass the social nature of writing, the contexts of composing, the role of the L2 writers as active agents and the impact their backgrounds may have on composing. In addition, a

comprehensive theory should incorporate the linguistic and cognitive aspects necessary to compose in the L2. Such a representative theory may push for the development of appropriate language policies paving the way for successful writing programs to be designed.

The next section will be dedicated to the presentation of a pool of studies that contribute to our knowledge of the development of writing in the L2, in this case, English as a second and/or foreign language.

2.3 Overview of empirical studies on the development of L2 writing

The purpose of this section is to expand our understanding of the development of L2 writing by presenting an assemblage of empirical studies that explore the diverse theoretical perspectives of L2 writing development.

Independent researchers have a wide variety of interests. Consequently, in the following, a review on the major topics in different areas of L2 writing research and their findings will be presented. Based on the existing literature, most L2 writing research has been carried out in fields such as L1 use in L2 writing and characteristics of L2 writers, grammatical features of the texts that learners produce, the L2 writing process, writing strategies, L2 writing instruction, in addition to studies that examine L2 variables, psychological and social variables and their influence on L2 writing.

2.3.1 Studies on L1 use in L2 writing and characteristics of L2 writers

A number of previous studies have investigated how L1 use in L2 writing is related to L2 text quality. These studies have reported that L1 use may negatively affect L2 written production (e.g., Cohen & Brooks-Carson, 2001; Van Weijen et al., 2009). Van Weijen et al. (2009), for

example, studied participants with upper-intermediate and advanced L2 proficiency and examined whether L1 use in written production varied across writers and tasks, and if this was related to general writing proficiency, L2 proficiency, and L2 text quality. Each of the twenty subjects, under think-aloud conditions, wrote four short argumentative essays in Dutch, their L1 and four essays in English, their L2. The focus of the analysis was on the occurrence of a number of conceptual activities, such as generating ideas, planning, and meta-comments. The results of the study indicate that to some extent, all the participants used their L1 to write in their L2 with some degree of variation midst conceptual activities. In addition, results show that L2 proficiency is directly related to L2 text quality. On the other hand, the results indicate that general writing proficiency has a negative influence on L1 use during L2 writing and a positive effect on L2 use during L2 writing. The outcome of the study concludes that L2 use appears to be positively correlated with L2 text quality for goal setting, generating ideas, and structuring, but negatively correlated with L2 text quality for self-instructions and meta-comments.

Other studies targeting writers with lower L2 proficiency report different outcomes on the influence of L1 use on L2 text quality. A study by Akyel (1994) examined ESL compositions written from plans in English and Turkish. The subjects, seventy-eight Turkish university students from intermediate and advanced proficiency levels, were asked to write three compositions on different assigned topics. The research studied whether there were differences between the plans written in Turkish and English and the resulting compositions with respect to each topic and different proficiency level. The researchers also looked into the differences between higher and lower proficiency writers in terms of plan and composition scores. The findings indicate that the language used for the planning phase did not have a significant impact on the quality of the plans

written by higher-proficiency learners on the three topics but did have an effect on the ones written by lower-proficiency learners.

While Akyel's (1994) study shows that L1 use for developing content is not directly related to L2 text quality, most of the studies on low L2 proficiency writers (e.g., Lally, 2000; Stapa & Majid, 2012) account that L1 use may have a positive impact on the L2 written text quality. These studies also show that in the planning phase, what to write and how to write are two important factors for L2 writers with lower proficiency because their low L2 competence hinders the output of stored information in both their L1 in addition to generating ideas in their L2 (Scott, 1996).

For novice L2 writers in the phase of planning the writing activity, this planning itself may not be sufficient to directly translate from L1 into L2. Many studies show that lower proficiency L2 learners have a tendency to directly translate L1 sentences into L2 (Fujii, 2012; Kim & Yoon, 2014; Sasaki, 2004; Uzawa & Cumming, 1989; Wolfersberger, 2003). In a study by Kim (2011), the researcher looked into how the grammar-translation method can be crucial for L2 low proficiency learners to produce successful writing. These learners employed the direct translation method as a writing strategy to make up for their inadequate ability to write in their L2. In another study by Sasaki (2002), beginner writers spent most of their time during the writing task translating the ideas generated in the L1 into the L2 due to their low L2 proficiency. They also paid less attention to the fundamentals of writing, such as clear content and logical flow. These studies propose that for low proficiency L2 writers there exists a phase between planning and translating which is the formulating of L1 texts before translating to the L2, and which is necessary for novice writers.

One of the most relevant research studies is that of Kobayashi & Rinnert's (1992) comparative analysis. The latter compares English compositions from 48 Japanese university

students. They employed a design with two writing processes. To begin with, writing first in L1 (Japanese) followed by translating into L2 (English), and progressing to composing directly in L2 (p. 183). The results of the study validate that lower proficient learners who use translations would considerably benefit in terms of content, organization, and style, as compared to learners who write directly in the L2.

The findings of these studies could have some pedagogical implications for L2 writing instructors who should be aware that the planning phase is not enough for low proficient L2 learners to produce logically developed L2 texts. Furthermore, educators should arrange for opportunities for L2 learners to improve fundamental writing practices. The knowledge of L1 writing reinforces the writing competence in the L2 texts as Kobayashi & Rinnert (1992) suggest. Hence, the presented pool of research suggests that with intensive writing practice in the L1, low proficiency learners may internalize the fundamentals of writing and then apply them to their L2 texts, but these learners may require much training to be able to compose their texts directly in the L2. Prominent differences exist between L1 and L2 writers (Silva, 1993). Consequently, for L2 writing specialists to generate productive decisions about their teaching practices, they should have a strong understanding of the unique nature of L2 writing and to what extent it differs from L1 writing.

2.3.2 Grammatical features of the texts produced

Substantial research has looked into improvement in L2 writing from the angle of grammatical features of the texts produced by L2 learners. Multiple studies have shed light on how L2 learners improve syntactic and morphological complexity and accuracy in their written outputs (Bardovi-Harlig & Bofman, 1989; Cumming & Mellow, 1996; Ishikawa, 1995; Reid, 1992;

Sweedler-Brown, 1993; Weissberg, 2000). Weissberg (2000) studied five adult L2 learners who were native speakers of Spanish enrolled in a pre-university intensive English program. Data were collected through paired oral and written tasks over a period of one semester. All the subjects showed significant differences in their patterns of both oral and written language development. In addition, the writing skill appeared to be the preferred medium for the development of new morpho-syntactic forms and for the improvement of grammatical accuracy.

Ishikawa (1995) explored how topic is pertinent to improvements in syntactic, lexical, and morphological complexity measures in different proficiency levels in L2 writing. The researcher studied the writing of college-level Chinese EFL learners who produced 1198 argumentative essays on two topics. In addition to the construct of complexity, the essays were analysed for various effects such as topic (within-subjects) and improvement across proficiency levels (between-subjects). The results of the study indicated strong effects for topic on most complexity measures. Learners used more complex language when the topic was more relevant to their experiences. Furthermore, data yielded significant variations across proficiency levels with respect to phrase-level syntactic, lexical, and morphological measures. This was not true for clause-level measures.

Similar developmental patterns have been observed in various text types, such as argumentative (Connor & Farmer, 1990; Grant & Ginther, 2000; Varghese & Abraham, 1998; Vedder, 1999; Yeh, 1998), autobiographical (Henry, 1996), and narrative (Albrechtsen, 1997; Bardovi-Harlig, 1995). However, beyond text types, linguistic characteristics also play a crucial role in developmental patterns. One widely used framework for analysing linguistic performance is the CAF (Complexity, Accuracy, and Fluency) framework, which emerged in second language

acquisition research to systematically assess different aspects of linguistic proficiency (Ellis & Barkhuizen, 2005; Skehan, 2009).

2.3.3 L2 language accuracy in written output

For many second language learners, the main goal is to attain native-like production of the target language. To achieve this, learners have to work on improving three key aspects of language performance that researchers on foreign language learning have put forth. These constructs are captured by the notions of complexity, accuracy, and fluency (CAF) (Ellis 2003, 2008; Ellis & Barkhuizen 2005, Housen et al. 2012; Skehan 1998). CAF measures have been used to assess oral and written language proficiency and progress in language learning. CAF measures complexity, which refers to the sophistication and structural variety of language use; accuracy, which pertains to grammatical and lexical correctness; and fluency, which captures the ease and speed of language production. Since this study specifically focuses on accuracy, it is essential to highlight its role in assessing learners' ability to produce grammatically correct and precise language structures. Accuracy been defined as "freedom from error" (Foster & Skehan, 1996, p. 304) and "the ability to be free from errors while using language'" (Wolfe-Quintero, Inagaki, & Kim, 1998, p. 33).

Initially, foreign language pedagogy speculated which of the two, fluency versus accuracy, was more important in L2 usage. This gave way to the research by Brumfit (1984) on such questions as to whether language accuracy that emphasizes linguistic form and grammatically correct language is more valuable than fluency. More than a decade later, Skehan (1989) proposed the complexity component which is the third element of the triad. A developing interest in the topic of these three scopes created a pool of research in the field.

Literature decrees that these three dimensions gained working definitions in the 1990s. Complexity has since been described as "the extent to which the language produced in performing a task is elaborate and varied" (Ellis 2003, p. 340), accuracy has been characterized as the ability to produce error-free speech, and fluency has been defined as "the extent to which the language produced in performing a task manifests pausing, hesitation, or reformulation" (Ellis 2003, p. 342). This study will focus on the accuracy component whereby written corrective feedback provision will target L2 features to foster error reduction.

In the past two decades an increasing number of studies in the field of ISLA has employed CAF measures as dependent variables to assess L2 performance influenced by factors such as WCF provision and task repetition. Though less common, some developmental research studies have utilized CAF to track change in quasi-experimental pre-/post-test designs to examine progress over time, while others have explored learners' long-term developmental trajectories (Housen & Kuiken, 2009, Housen et al., 2012; Lambert & Kormos, 2014; Polio & Shea, 2014)

Empirical research has measured accuracy through holistic rating scales (e.g., Polio, 1997), broad measures such as error-free sentences and error frequency per 100 words in addition to more explicit metrics. The selection of type of measure depends mostly on the expected linguistic outcomes and certain L1-L2 pairings may naturally lead to dropping the subject, as in the case of Armenian learners of English or measuring gender marking on adjectives, as in the case of English learners of Spanish. For the purpose of this study, accuracy is measured by error frequency per total number of words produced.

Regarding task familiarity and accuracy, numerous experimental studies have explored the effects of task familiarity and repetition on accuracy (e.g., Ahmadian & Tavakoli, 2011; Kanganas & Oliver, 2007; Kim & Tracy-Ventura, 2013; Pinter, 2005; Roothooft, Lázaro-Ibarrola, & Bulté,

2022). Many of these studies employed CAF measures to evaluate learners' L2 performance. Findings suggest that both adult and young learners tend to produce more accurate work when completing similar tasks multiple time. Additionally, Bygate and Samuda (2005) proposed that repeated task exposure allows L2 learners to shift their attention from meaning to form, leading to trade-offs between linguistic complexity and accuracy, as noted by Skehan (2009). Learners generally show enhanced accuracy when engaging with similar material more than once. Introducing slightly varied content in related tasks appears to help maintain learners' sustained motivation and engagement across repeated tasks. Based on the aforementioned literature, this research study utilized writing prompts that are technically similar but with slight variations in an attempt to examine improvement in accuracy and motivation to engage in corrective feedback.

Spoelman and Verspoor (2010) analyzed 54 writing samples produced by a single learner of Finnish over a three-year period. This longitudinal case study focused on intra-individual variability in accuracy rates and complexity measures. Error reduction was found in most cases except in four troublesome errors: the partitive singular and the accusative singular, both of which involve complex semantic rules, and the formation of the partitive plural, which concerns complex morphological rules. Although the learner demonstrated overall growth in the complexity and accuracy of Finnish case marking, the development followed a non-linear trajectory. The results revealed fluctuations, including periods of progress, regression, and backsliding in specific linguistic features.

In another corpus-based investigation, Vyatkina, Hirschmann, and Golcher (2015) applied multilevel modeling to examine the syntactic development of seven modifier types (e.g., adverbs, prepositional phrases) in longitudinal writing samples from English learners of German. Conducted over four semesters, the study found that while overall modifier usage remained fairly

consistent, significant inter- and intra-individual variation emerged in the specific types of modifiers used over time.

Few studies have examined task implementation and different types of feedback with young learners, resulting in limited knowledge about factors such as draft quality and task motivation. To address this gap, Roothooft, Lázaro-Ibarrola, and Bulté (2022) investigated these constructs in 75 young learners aged 10 to 12, who participated in a three-stage writing task. The participants were divided into three groups: a task repetition group (n = 21), a direct correction feedback group (n = 30), and a model-text feedback group (n = 24). Findings showed that task repetition led to slight improvements in draft complexity, direct corrections significantly enhanced accuracy, and model-text feedback increased lexical diversity and overall text quality. Throughout the writing process, task motivation remained high in the task repetition group, where learners perceived the task as easy, but motivation decreased slightly in the direct feedback group, particularly before the final draft.

Moreover, Kim, Claudia Li, and Shaofeng (2024) examined the combined impact of task repetition and WCF on EFL learners' writing accuracy. The study investigated two different types of task repetition: identical repetition (learners repeated the same task), and procedural repetition (learners performed tasks with different content following the same procedure). Under each repetition condition, learners received direct correction or metalinguistic WCF on their use of three L2 structures: the past tense, articles, and prepositions. Participants were 80 Korean university EFL learners who were randomly assigned to four groups: identical repetition + direct feedback, identical repetition + metalinguistic feedback, procedural repetition + direct feedback, and procedural repetition + metalinguistic feedback. The results indicated that procedural repetition was superior to identical repetition in enhancing learners' writing accuracy regardless of the type

of feedback provided. Furthermore, the data showed that there were no significant differences between the two types of feedback, but there was a general trend toward a greater impact of metalinguistic feedback for the past tense and for direct correction for articles and prepositions.

2.4 Possible difficulties in the development of writing skills in L2 classrooms

Wolfe-Quintero et al. (1998) proposed a circular definition to language development depicting it as "characteristics of a learner's output that reveal some point or stage along a developmental continuum" (p. 2). This definition distinguished development from the broader concept of proficiency. Manchon (2012) does not offer a specific definition of development, rather she describes it as some change over time on some aspects of writing. For the purpose of this research study, writing development is defined as change over time in language accuracy (reduction of errors) with respect to specific L2 features. This definition will apply for the remainder of this study.

Writing is thought to be the last of the skills to be acquired especially for second or foreign language learners as compared to reading, speaking and listening skills. Difficulties in the development of writing faced by L2 learners may vary from one learner to another. Pablo and Lasaten (2018) describe writing difficulties faced by L2 learners as problems with content and ideas, organization of writing, word choice and lack of vocabulary, and language use. Ahdi Hassan et. al (2020) strongly believe that these difficulties suggested by Pablo and Lasaten (2018) lead to learner frustration. Furthermore, Graham (2019) suggests that several factors hinder the development of L2 writing. To begin with, the insufficient time devoted to writing instruction in classroom and lack of writing practice particularly in extended essays. This is the case in Lebanese-Armenian contexts with only five hours of instruction of English per week and young learners

practicing at the sentence and paragraph level. Another hindrance to the development of writing, according to Graham (2019), is inadequate teaching and feedback modes which result the lack of motivation and engagement. Other studies also emphasize that lack of interest and motivation, minimum collaborative learning, like pair-work, in the writing classroom, teachers' teaching styles, and insufficient time spent in writing instruction may contribute to writing difficulties in L2 learners (Kao & Reynolds, 2018; Graham, 2019; Bulqiyah et. al., 2021).

Many studies have been conducted on difficulties in writing in ESL contexts. Bulqiyah et.al (2021) looked into the perceptions of writing difficulties among L2 learners. The 21 undergraduate participants filled-out a questionnaire. Six of these respondents were then interviewed to gain access to their in-depth perceptions. The findings indicate that the learners faced affective and cognitive difficulties in L2 writing. The first is the issue of learners' and educators' attitude towards L2 writing instruction mode, while the cognitive problem refers to the difficulty in the technical and mechanics of writing such as transferring language, lack of vocabulary, poor organization of ideas, and linguistic problems. Results showed that undergraduate L2 learners struggle in L2 writing in both the affective and cognitive aspects.

Another research study by Uba and Souidi (2020) at Dhofar University, Oman, studies the writing difficulties among ESL learners. Forty essays written by the Business Course undergraduate students were analyzed by adapting a doxography approach. Learners' writing practices were studied and findings designated that these L2 learners faced difficulties in writing a thesis statement, topic sentences and generating ideas. Other difficulties were poor organization, lack of coherence, and limited vocabulary. The results showed that one of the main issues that lead to difficulties in L2 writing is the limited time given for writing lessons.

Similarly, Phuong (2021) studied the perceptions of fifty sophomore students majoring in English at Tay Do University. Participants filled in a survey to express their perceptions on the difficulties they face when writing in their L2. Survey results showed that these undergraduates faced seven main difficulties in learning writing in the L2. These difficulties encompass limited vocabulary, linguistic problems, such as grammar, spelling and mechanics, poor organization, and language transfer from the L1. The findings of the study indicate that there are several recurring errors that the ESL learners make in their academic writings, which are lexical errors and mechanics. The study strongly endorsed that educators give ample time to writing instruction in order to overcome these difficulties.

Baharudin et al. (2023) also explores the challenges in writing skill learning among ESL learners. They utilized a quantitative survey to study the relationship between writing difficulties before and while writing. The survey questionnaire consisting of five sections with 41 items was distributed to 179 ESL learners at the centre of foundation studies in Malaysia. The results showed that the main difficulty in writing faced by the ESL learners is the inability to achieve the goal of the writing task. This factor caused the ESL learners to feel unmotivated during writing actives.

In summary, the aforementioned recent studies highlight a solid association between writing difficulty and writing instruction. The ESL learners in the research conducted faced similar difficulties in writing development, which makes it necessary for additional time to be allocated to teaching writing. The method of teaching is also of utmost importance to ensure learner engagement and motivation in order to achieve effective writing goals.

2.4.1 Young learners and L2 writing difficulties

Writing is also an important early literacy skill for young ESL learners. This highlights the importance of effective ESL writing instruction at the K-12 level. Still, there is need for more empirical research on ESL writing instruction within school settings as noted by various researchers (e.g., Hirvela & Belcher, 2007; Manchón & Roca de Larios, 2007; Matsuda & De Pew, 2002; Ortmeier Hooper & Enright, 2011). As a result, there is little empirical research on the difficulties young ESL encounter when mastering writing skills in the L2. For example, Roessingh and Elgie (2009) suggested that there are literacy gaps between young native-English-speaking and ESL learners, and these gaps widen in middle school resulting in difficulties in communication abilities. In light of the above, effective early literacy education is an area that deserves special consideration for research, since early literacy development is a prerequisite for young learners' lifelong academic success.

To begin with, there are core individual learner differences that are indicative of L2 learning difficulty. Individual learners may encounter difficulty based on intra-individual or learner's individual capacities and abilities. What is difficult for one L2 learner may not be difficult for another. Therefore, individual differences in cognitive abilities and language aptitude impact the difficulties faced by young ESL learners (Carroll, 1981; Robinson, 2005; Yalçin & Spada, 2016). Other variables that impact learning are working memory (Juffs & Harrington, 2011; Vega, & Rebuschat, 2016), and implicit learning ability (Granena, 2013; Suzuki & DeKeyser, 2015; Tagarelli et al., 2016; Yalçin & Spada, 2016). Other learner factors include previous knowledge in the L2 or knowledge of the L1 and its correspondence to the L2 (Della Putta, 2016). In general, L2 proficiency and certain socio-affective and personality factors (e.g., motivation and anxiety;

Dörnyei, 2005; Robinson, 2002) also influence how easily a young learner acquires an L2. Therefore, young learners themselves bring the difficulty to L2 learning (DeKeyser, 2003).

Another major difficulty that young L2 learners encounter is the L1 influence on L2 learners' text production. Research has shown that young learners' L1s were responsible for challenges in their written productions (Abraham, 2017; Gort, 2012a; Mohr, 2017). Mohr's (2017) findings suggest that although Grade 2 English ESL learners established basic writing skills such as spacing, spelling, capitalization, and punctuation, they struggled with descriptive words, sentence structure, and transitional words. Furthermore, writing output and complexity in expository compositions was weak when compared to their English-speaking counterparts. In a bilingual setting, Gort (2012a) investigated challenges children encounter in text production and found that English played a large role in the production of Spanish texts, but Spanish did not play a significant role in the production of English texts. In a separate study, Gort (2012b) found that emergent Grade 1 Spanish-English bilingual students had the ability to engage in revising texts, and they could do so in both languages. In brief, students' L1s seemed to influence their writing in English.

This brings us to the third major source of L2 difficulty that stems from the L2 target feature itself. Some language features are more cognitively demanding for all language learners, and more for young learners irrespective of their individual learning capabilities. Feature-related difficulty can result from two factors: feature intrinsic properties or how this feature appears in the input. L2 scholars such as DeKeyser (1998, 2005, 2016) and Doughty and Williams (1998) studied complexity of L2 features. Some linguistic constructions with a one-to-one mapping between form and meaning (e.g., the English superlative marker -est , meaning "most") are less difficult than

features with irregular or multiple mappings between form and meaning (e.g., the English -s suffix, which can express plural, genitive, and agreement forms).

Therefore, young ESL learners face difficulties with L2 features that are not rule-guided. These students learn the rules but may not transfer them to writing committing errors in the L2. Many educators and theorists in the field of error analysis have stressed how important these errors are in the acquisition of a second language. Hourani (2008) proposed that errors are significant in three different ways. First to the teachers, in that they tell them how well learners have advanced in acquiring a feature. Next, they provide evidence of what strategies learners are employing in acquiring the language. Finally, errors are essential to the learners themselves, because they can be a device learners use in order to learn. Research has provided empirical evidence to emphasize the effectiveness of learners' errors in improving grammatical accuracy (Hamzah, 2012; Hourani, 2008). Certainly, as Jamil and Kamran (2016) discuss, gaining a deeper understanding of how grammar works means gaining insight into both its correct use and common misuse. Hence, it is very important for young learners to recognize the errors which occur in their writing to fully understand the nature of the errors made and learn from them. This requires English language teachers to be aware of the difficulties young students face with regard to grammar and employ teaching methods and feedback strategies to encourage learner involvement and agency in feedback processes. In other words, young learners should be given the chance to test their hypotheses about the nature of the language they are working on acquiring.

To further understand some of the errors young learns make which is indicative of difficulties they face, research was conducted by Zawahreh (2012) studying errors in English as L2 written productions of tenth grade students in female and male schools in Ajloun, Jordan. The sample consisted of 350 students selected randomly. Students were asked to write a free essay

about “A journey to ancient city of Jerash in Jordan”. The analysed essays indicated that the most predominant errors among students were errors of third-person singular agreement between subject and the main verb. Results also showed that students had errors of insertion of preposition. The most predominant errors within syntax were errors of omission of the main verb.

In another study, Hamza (2012) looked into the errors committed by Jordanian male school students in their learning of English passive constructions. The sample was 30 first, 30 second and 30 third academic secondary male students. They were selected randomly from five government schools in the city of Irbid. The analysis of the results revealed that there were no statistically significant differences among students with respect to the errors made in past perfect, present perfect, simple future and the models of passive voice indicating that difficulties in these features take time to acquire. The researcher suggested that the sources for the errors made can be due to mother tongue interference, individual student’s performance, ignorance of the grammatical rules of the L2, and overgeneralization errors.

In conclusion, young ESL learners encounter multiple challenges in mastering writing skills, stemming from individual learner differences, the L1 interference that often complicates text production, and the complexity of L2 linguistic features. What can further shape each learner’s experience entail their cognitive abilities and prior knowledge. Additionally, certain grammatical structures in the L2 pose greater difficulties due to their complexity and irregularity. Research highlights the importance of recognizing and addressing these challenges through targeted instruction. This takes us to the topic of explicit and implicit instruction of grammar.

2.5 Explicit and implicit contexts of L2 writing instruction

Writing is a very essential skill and a valuable tool for communication, learning, and self-expression; therefore, students who do not have adequate writing skills will be at a great disadvantage. Young students struggling with the writing process develop a negative view of writing and of their own abilities to communicate in writing (Diliberto, 2004). When teachers allocate enough time and opportunities for young learners to practice writing with engaging activities in elementary school, they will be able to foster confidence and hopefully a lifelong love of writing. Several research-based instructional strategies have been found to be effective in engaging students in the writing process thereby improving their overall writing performance. Some of these strategies include grammar instruction, strategy instruction, and strategies for self-regulated learning. In this section, the effectiveness of explicit and implicit contexts of L2 instruction strategies to improve student writing is investigated.

Instructed Second Language Acquisition (ISLA) explores how instruction in L2 classrooms influences language acquisition (Loewen & Sato, 2017). While definitions vary, Loewen's (2020) is widely accepted as it extends beyond traditional classroom settings to include L2 learning contexts such as self-study, study abroad, and online environments. According to Loewen, ISLA is "a theoretically and empirically based field of academic inquiry that aims to understand how the systematic manipulation of the mechanisms of learning and/or the conditions under which they occur enable or facilitate the development and acquisition of a second language" (p. 2). In essence, ISLA covers any context where a teacher and textbook guide a learner's acquisition of an L2.

To identify empirical studies that objectively and systematically investigate ISLA, and recognizing that no single study can definitively determine the effectiveness of pedagogical practices, the field has increasingly turned to research syntheses that statistically analyze

collections of individual studies on specific topics. Meta-analyses have thus emerged as valuable tools for bridging the gap between teachers and researchers. The application of meta-analysis in ISLA began with Norris and Ortega (2000), who examined 49 studies to evaluate the effects of explicit and implicit L2 instruction. This was followed by a surge of meta-analyses exploring various aspects of ISLA (e.g., Goo et al., 2015; Li, 2010; Spada & Tomita, 2010).

In educational settings, the implicit aim of L2 learning is for learners to develop communicative competence in both spoken and written forms (e.g., Littlewood, 2011). Accordingly, ISLA researchers have theorized that linguistic knowledge encompasses two broad types of L2 communicative skills. Krashen (1982) distinguished these as learnt and acquired knowledge, corresponding respectively to learning and acquisition processes. More recently, these concepts have been reframed as explicit and implicit knowledge within the field (Ellis, 2009; DeKeyser, 2017).

Explicit knowledge refers to learners' conscious understanding of language, often demonstrated through metalinguistic awareness of grammar rules (Ellis, 2004). For instance, a learner who verbalizes that English plurals are typically formed by adding –s to nouns, or who recognizes irregular plural forms like *child–children*, is demonstrating explicit knowledge. Similarly, vocabulary knowledge tends to be explicit, as shown when learners consciously translate words between their first language and English. Because explicit knowledge is accessible to conscious reflection, it is relatively straightforward to teach and learn. Teachers can directly explain language rules and offer practice drills, while learners can memorize and reproduce these rules on tests. Traditional grammar-focused approaches tend to be effective in developing explicit knowledge.

Despite its benefits, explicit knowledge has several limitations. Firstly, the grammar rules taught explicitly in classrooms are often incomplete and may not fully align with linguists' descriptions of a language's actual grammar (VanPatten, 2017). For example, L2 learners are typically taught that the indefinite article (*a/an*) is used when an object is mentioned for the first time, and the definite article (*the*) is used for subsequent mentions. However, this metalinguistic rule is not always applied consistently in natural language use. For instance, one might ask, "Where is the bathroom?", even if *bathroom* was not previously mentioned, illustrating that English article usage follows a more complex system. Another drawback of explicit knowledge is that it does not facilitate fluent communication in the L2 (Ellis, 2005b; Master, 1997). This is partly because accessing explicit knowledge requires conscious effort and time, which hampers spontaneous and efficient language use during communication. Consequently, learners relying solely on explicit knowledge must mentally analyze language rules while speaking, resulting in slower and more limited linguistic output.

On the other hand, implicit knowledge triggers communicative competence by enabling students to use the L2 effectively and automatically in communication. Furthermore, implicit knowledge refers to an unconscious understanding of language, which operates automatically without the need for conscious reflection (Ellis, 2004). This allows learners to communicate without actively thinking about grammatical forms. It is important to note that L2 learners of English can develop both implicit and explicit knowledge. However, implicit knowledge requires significant time to develop, and learners often have limited exposure to the L2, typically only a few hours per week over several years, making acquisition challenging. Additionally, implicit knowledge is difficult to teach because it depends on extensive language exposure and occurs without learners' conscious awareness. Its non-verbalizable nature also complicates assessment.

Consequently, implicit knowledge acquisition is not the primary focus in many L2 classrooms. This raises the question of whether implicit knowledge can be developed through explicit instruction. Scholars such as Krashen (1982) argue that it is unlikely, if not impossible, for explicit knowledge to transform into implicit knowledge, asserting that these two types of knowledge are fundamentally distinct. In contrast to the view that explicit and implicit knowledge are entirely separate, some researchers adopt a more optimistic stance, suggesting that teachers can support the development of implicit knowledge in the classroom. They argue that instructional environments can be designed to simulate the conditions under which first language speakers acquire implicit knowledge. Two pedagogical approaches commonly associated with this aim are Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT). Through these methods, explicit knowledge may become proceduralized and eventually automatized, enabling learners to draw on it more effectively over time (e.g., DeKeyser, 2017). In essence, communicative practice can potentially facilitate the transformation of explicit knowledge into implicit knowledge.

The relationship between explicit and implicit knowledge is explored in the Interface Hypothesis (N. C. Ellis, 2005), which outlines three main theoretical positions. The first is the no-interface position, advocated by Krashen (1982), which maintains that explicit and implicit knowledge are entirely separate systems and that one cannot be turned into the other. In contrast, DeKeyser (1998, 2007, 2017) advocates for the strong interface position, which posits that explicit knowledge can be fully converted into implicit knowledge through extensive, meaningful, and appropriately structured practice. A more nuanced perspective is offered by Ellis (2005), who supports the weak interface position. The weak interface perspective suggests that explicit knowledge may contribute to the development of implicit knowledge under certain conditions, for example when learners are developmentally ready or engaged in suitable communicative tasks.

This view holds that explicit knowledge can contribute to the development of implicit knowledge, but only under specific conditions such as when learners are developmentally ready or when they engage in communicative tasks that promote proceduralizing. These differing positions emphasize the critical role of instructional design in facilitating the transformation of conscious grammatical understanding into spontaneous and fluent language use.

The current study supports the viewpoint that initially, grammar needs to be explicitly taught and learned through drills (DeKeyser, 1998). Then, learners should be exposed to these forms through repeated practice in writing. In addition, learners can benefit from correcting their own errors and those of their peers for more conscious practice facilitating the transfer of explicit knowledge to implicit knowledge.

2.6 Grammar instruction for L2 writing

Grammar instruction is important to enable students to carry out their communication in writing. According to Chin (2000), effective grammar instruction helps learners transfer and apply this knowledge as they write. Grammar instruction needs to involve students in the learning experiences that encompass collaboration in pairs and independent work. In addition, grammar instruction should involve revising and editing to help learners make direct applications, which in turn will allow them to see the relevance of grammar to their own writing (Stathis & Gotsch, 2013).

In the process of acquiring grammatical competence in L2 writing, the method of grammar instruction holds significant implications for learners' development. Central to this discussion is the distinction between explicit and implicit instructional contexts, which shape the ways learners process and internalize grammatical structures. Explicit instruction involves direct teaching of grammatical rules and metalinguistic explanations, while implicit instruction relies on exposure to

grammatical forms in meaningful contexts without overt rule explanation (Ellis, 2008; Nassaji & Fotos, 2011). The debate surrounding the effectiveness of these instructional approaches has been a longstanding issue in the field of ISLA, with researchers exploring their respective impacts on linguistic accuracy and writing proficiency.

A fundamental and ongoing debate in SLA research concerns whether learners can develop grammatical knowledge in a manner similar to first language acquisition—through exposure to comprehensible input slightly beyond their current proficiency level (Krashen, 2008)—or whether explicit instruction of rules is necessary (Ellis, 2008). As a result, the role of explicit grammar instruction remains a contentious topic, with extensive research dedicated to evaluating its effectiveness in fostering grammatical competence. Proponents of explicit instruction argue that raising learners' awareness of grammatical rules is essential for linguistic development, as it encourages them to notice their errors and refine their understanding of language structures (Batstone & Ellis, 2009). In contrast, others contend that explicit grammar instruction is unnecessary, as research suggests that learners can acquire grammatical structures implicitly through repeated exposure to L2 input, without the need for conscious awareness of grammatical rules (Krashen, 2008).

A key challenge in the debate on explicit and implicit grammar instruction concerns the extent to which learners can retain grammatical knowledge over time. Tode (2007) examined this issue by assessing how different instructional approaches influenced the acquisition of the auxiliary verb “to be” among three groups of 30 beginner-level Japanese high school students. The first group received explicit instruction, while the second was exposed to implicit instruction through exemplars over a period of three weeks. A third group received no instruction at all. Findings revealed that explicit instruction led to significant short-term gains, whereas implicit

instruction did not result in any measurable improvement. Additionally, learners who received implicit instruction performed similarly to those who received no instruction. Despite the initial benefits of explicit instruction, learners struggled to retain this knowledge, particularly after being introduced to the present continuous form. The study attributed this decline to the absence of follow-up instruction. To enhance retention, the author recommended providing learners with multiple opportunities to practice the auxiliary verb following structured instruction, along with corrective feedback targeting errors. Thus, while explicit instruction can be effective, its long-term impact depends on sustained reinforcement through activities such as collaborative output tasks (Nassaji & Fotos, 2011).

Furthermore, the issue of grammatical retention is closely tied to how explicit instruction influences both implicit and explicit knowledge. Akakura (2012) explored this relationship by investigating the effects of explicit instruction on 94 L2 learners' understanding of definite and indefinite articles. The study exposed learners to the target forms right before engaging in activities. Their knowledge was then assessed using a series of tests designed to measure both implicit and explicit learning outcomes. The findings indicated significant improvements in learners' ability to produce and recognize articles, highlighting how explicit instruction can facilitate greater learner autonomy. Overall, these results suggest that under specific conditions, explicit instruction can support the development of both implicit and explicit knowledge.

The need for explicit grammar instruction in elementary L2 classrooms has long been controversial issues. In a research study by Feng and Powers, (2005) on the effects of explicit grammar instruction, the researchers aimed to understand whether error-based grammar instruction had any positive short-term and long-term effects on student writing. Mini-lessons were designed stemming from learner errors identified in earlier writings. The participants in this study were fifth-

grade students from a public elementary school in Conway, Arkansas . The results from the three writing samples showed that the young learners improved their writing with respect to mechanics, sentence structure, and usage. Positive results were also found on both the short-term and long-term measures. Therefore, the researchers concluded that grammar instruction is most effective when mini-lessons are taught targeting specific weaknesses or errors observed in student writing. Stemming from Feng and Power's (2005) and other researchers, the present research study also looked into errors in students' writings, then explicitly taught the different L2 features as mini-lessons, and finally created technically comparable writing prompts in repeated opportunities for young learners to apply the explicit knowledge to writing communication. Building on explicit grammar instruction and to further understand the development of learners' writing accuracy in the L2, it is crucial to explore the impact of various types of written corrective feedback. The next chapter will define written corrective feedback (WCF) and explore its various types, providing a foundation for understanding how different feedback approaches contribute to improving L2 writing accuracy.

CHAPTER 3

WRITTEN CORRECTIVE FEEDBACK

3.1 Written Corrective Feedback and the Acquisition of L2 writing

In the process of acquiring novel competencies in the L2, it is inevitable that learners make errors and encounter missteps. The manner in which educators choose to respond to and correct these errors are of paramount significance in maximizing instructional efficacy and cultivating an environment conducive to learning. In this sense, corrective feedback (CF) emerges as a potent instrument for addressing errors and reinforcing expectations. Corrective feedback can be defined as "information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning" (Shute, 2008, p. 154). Various attributes of corrective feedback, encompassing content, timing, and method of delivery, all hold the potential to exercise profound influences on the learning outcomes of students (Guinness et al., 2020).

Research on written corrective feedback (WCF) in the context of second and foreign (L2/FL) language learning, specifically writing in the L2/FL, has been and still remains a significant area of interest. Consequently, a wide stream of experimental studies has looked into the link between WCF and second/foreign language acquisition (SLA/FLA). According to Hyland & Hyland (2019), in L2 writing instruction, educators engage in the evaluation and provision of feedback on a diverse range of issues within students' written texts. This feedback encompasses aspects such as content, organization, presentation of ideas, appropriate vocabulary usage, mechanics, grammar and other related matters. From these, what has garnered considerable attention from researchers is WCF provided by educators on the linguistic errors in response to

learners' inaccurate utilization of the target language in writing. Hence, a wide range of studies within the realm of L2 writing and SLA/FLA have directed their theoretical frameworks and methodological approaches towards exploring the significance of written corrective feedback.

Research within the field of L2 writing predominantly focuses on examining the role of feedback in fostering the development of learners' revision and editing skills. This particular perspective is often referred to as the "learning-to-write" strand of L2 writing (Leki, Cumming & Silva, 2008). Scholars, such as Chandler (2003) and Ferris (2006) have undertaken investigations to determine the potential utilization of WCF as an effective editing tool. Their primary focus revolves around the inquiry of whether and how WCF can contribute to enhancing learners' capacity for revision and their ability to become autonomous, self-editing writers. Despite theoretical underpinnings in SLA/FLA that suggest the effectiveness of written corrective feedback in promoting L2/FL development, the debate surrounding the effectiveness of WCF remains unclear (e.g., Ferris, 1999; 2004; Truscott, 1996; 1999; 2007; Truscott & Hsu, 2008).

The aim of this chapter is to comprehensively examine various theoretical viewpoints pertaining to the significance and treatment of errors in the context of second/foreign language acquisition. Additionally, this chapter aims to review a bouquet of empirical studies that investigate the effectiveness of the different types of WCF within the SLA process. Moreover, an extensive overview of the theoretical underpinnings associated with the utilization of WCF in foreign language (FL) and second language (L2) classrooms will be offered. Furthermore, the forthcoming sections will delve into the empirical research endeavors that explore the efficacy of WCF in enhancing learners' accuracy in the target language and with respect to different errors in the L2/FL. Finally, learner perception of types of WCF will be presented.

3.2 Defining Written Corrective Feedback

Written corrective feedback in second/foreign language acquisition has been acknowledged as a crucial component in addressing learners' errors, despite the ongoing inconclusive nature of research regarding its effectiveness. Written corrective feedback is a process in which a reader or instructor provides feedback to a writer to address and correct errors or areas of improvement in written texts. It involves comments, suggestions, or corrections aimed at enhancing the writer's language accuracy, clarity, organization, and overall effectiveness in written communication (Bitchener & Ferris, 2012; Ferris, 2010; Hyland & Hyland, 2006; Ellis, 2009; Sheen, 2007). Written corrective feedback can be defined as the provision of input from a reader to a writer with the intention to guide and support the revision process (Keh, 1990, p. 294; Barduell et al., 1981). It incorporates various forms of feedback, such as comments, questions, and suggestions, which are intended to guide the writer in producing reader-based prose that aligns with the intended communication goals (Kepner, 1991).

Over the years, various definitions have been proposed to describe corrective feedback. In 1980, Lamberg (p. 60) viewed feedback as "information on performance that influences subsequent performance by directing students' attention to specific aspects, resulting in changes in subsequent performance." Barduell et al. (1981) define WCF as a type of response where teachers offer learners feedback regarding their performance. Lalande (1982, p. 141) states that "feedback refers to any procedure used to inform a learner whether an instructional response is right or wrong". Furthermore, Kepner (1991) defines corrective feedback as a means of informing learners whether their instructional response is correct or incorrect. Written corrective feedback refers to the feedback provided by a reader to a writer, which serves the purpose of offering information to the writer for the purpose of revising their work. In simpler terms, it encompasses

the remarks, inquiries, and recommendations provided by a reader to a writer in order to create prose that is oriented towards the reader's perspective rather than the writer's perspective (Keh, 1990).

Moreover, according to Hattie and Timperley (2007), feedback, including written corrective feedback, plays a crucial role in fostering learners' awareness of their strengths and areas for improvement. This feedback assists in bridging the gap between students' current level of understanding and their desired learning outcomes. This is achieved through corrective activities such as restructuring understanding, confirming correctness or identifying errors, providing additional information or indicating areas that require further exploration, and suggesting alternative strategies for comprehension (Hattie & Timperley, 2007).

All these definitions and insights into written corrective feedback have been discussed in various research studies and incorporated as evidence in the focus-on-form approach to language learning including studies by Bitchener and Ferris (2012), Ferris (2010), Hyland and Hyland (2006), Ellis (2009), and Sheen (2007). Various alternative terms have been employed to replace the term "feedback", such as "comments", "response", or "correction" (Kepner, 1991, p. 141). Ultimately, corrective feedback is widely regarded as a crucial element, given its significance in promoting and reinforcing learning (Hyland & Hyland, 2006). The same authors state that regardless of its method of delivery, feedback serves as a constructive assessment of a written work. It is an evaluation that guides the student toward improving their future writing and the development of their writing skills (Hyland & Hyland, 2019).

3.3 Early Framework on Errors and WCF in L2 Acquisition

In the early 1960s, errors were regarded as negative indications in the learning process. They were viewed as obstacles that hindered effective learning and were therefore deemed necessary to be avoided: “Errors, like sin, are to be avoided and its influence overcome” (Brooks, 1960, p. 58). A crescendo of growing emphasis on investigating errors and their treatment within the field of second language acquisition led to the emergence and formulation of various pedagogical approaches aimed at error prevention (e.g., Bitchener & Knoch, 2009; Chandler, 2003; 2010; Ellis et al., 2008; Ferris, 2006; Lalande, 1982; Sheen et al., 2009).

In the Audio-Lingual approach, for example, learners were provided with ample opportunities to observe and engage in target language practice with the aim of producing error-free utterances (Brooks, 1960). Accentuating error avoidance through rigorous drilling, it was recommended that educators employed teaching techniques such as repetition, pattern drills, and extensive study of grammatical generalizations. Thus, learners were required to drill and repeat multiple times to memorize the right models of dialogues. Interestingly in later years, Bitchener and Ferris (2012) highlighted the lack of trials or testing conducted by many educators to ascertain the validity, feasibility, and effectiveness of this mechanistic approach in relation to error prevention in the L2/FL.

Also, during the 1960s, Contrastive Analysis (CA) emerged as a recommended approach to augment educator’s ability in addressing learners’ errors and forecast error patterns. This type of analysis involved a comparative examination of two languages to identify their differences and predict potential errors made by learners. Moreover, CA necessitated providing explanations regarding the reasons behind learners’ errors and the role of educators in addressing them. The

interference of the learners' native language (L1) was posited as the primary source of errors, as proposed by structural linguists.

Soon after, in the late 1960s and early 1970s, similar to the Audio-Lingual approach, Contrastive Analysis faced criticism for its failure to accurately predict error patterns despite its advantage in predicting the likelihood of specific error types. A pertinent pool of empirical studies (e.g., Hendrickson, 1977; Selinker, 1969; Wolfe, 1967) provided evidence supporting this criticism and revealed that L1 interference errors were only one of several types of errors encountered by learners during the L2 acquisition process.

In the pursuit of alternative explanations concerning the roots of learners' errors and the appropriate methods for correction and treatment, scholars within the fields of linguistics and psychology synchronously commenced in the search for answers. Linguists, transcending a purely surface-level analysis of extensive language corpora, began to shift their focus towards recognizing the rule-governed and creative nature of language. In parallel, psychologists like Skinner (1957) redirected their attention towards the influence of environmental factors in shaping children's language and behavior, while incorporating developmental perspectives on learning (e.g., Piaget, 1970; Piaget & Inhelder, 1966). These developments found expression in Chomsky's (1959) postulations regarding the children's L1 acquisition process. Chomsky asserted that although children are incapable of learning large chunks of pre-existing sentences, they possess the ability to generate novel sentences they have never encountered before. He posited that this capability is rooted in children's internalization of grammatical rules, as opposed to memorization of word sequences.

Chomsky's perspective laid the foundation for L1 acquisition research in the 1970s (e.g., Brown, 1973; Klima & Bellugi, 1966; Slobin, 1970) uncovering several significant findings. To

begin with, it was observed that children progress through stages of language development that exhibit similarities both within a specific language and across different languages. Next, it was detected that children's language acquisition process follows rule-governed and systematic patterns. In addition, children display resistance to error corrections. Moreover, studies revealed that the limited processing capacity of children restricts the number of rules they can employ simultaneously. Furthermore, when faced with competing rules, children tend to revert back to earlier hypotheses. These findings, coupled with the growing disillusionment with the predictive capabilities of Contrastive Analysis in identifying areas of difficulty, fostered an increased interest in the analysis of the language produced by L2 learners, leading to the emergence of Error Analysis (EA) as a systematic exploration of L2 learners' errors.

From this pool of theories and studies emerged the concept of EA within the realm of L2 theory, serving as an approach to comprehend errors by categorizing and comparing them to the errors made by children during L1 acquisition. EA further contended that the majority of L2 errors are not solely attributable to learners' L1 or L2 influence, but rather are internal to the learners themselves. While error analysis initially held practical relevance, it encountered theoretical criticisms. On one hand, it became apparent that the behaviorist view of learning, which emphasized external stimuli and failed to account for the internal cognitive processes of learners, was limited in scope. On the other hand, researchers argued that learner errors were both systematic and dynamic. Evidence from L1 acquisition studies revealed that learners do not simply mimic input; instead, they formulate their own linguistic rules and gradually refine their language production as their proficiency develops.

In 1972, Selinker introduced the term "Interlanguage" as a theoretical construct to describe the focus on the language produced by learners. Interlanguage emerged as a result of early

investigations in L1 and L2 acquisition studies (e.g., Brown, 1973; de Villiers & de Villiers, 1973; Dulay & Burt, 1973), which revealed that children and L2 learners develop linguistic domains in a predetermined order. These findings led the interlanguage approach to view "errors" as transitional forms that would be replaced by more target-like forms, in accordance with the natural order of acquisition.

The emergence of these findings had a profound impact on earlier theoretical perspectives regarding second and foreign language acquisition and the role of errors within that process. The traditional view of errors as something to be avoided at all costs was transacted such that errors came to be understood as manifestations of the intellectual processes inherent in the learning and acquisition of the target language. Consequently, inquiries pertaining to the causes of errors, what errors require correction, the appropriate timing and methods for correction, types of error correction and corrective feedback, and the individuals responsible for carrying out the correction gained significant attention within the field of second/foreign language acquisition research.

During the 1970s, in North American L1 composition classes, the recognition of the significance of written corrective feedback became evident in conjunction with the adoption and the advancement of learner-centered pedagogical approaches in the instruction of writing (Hyland and Hyland, 2019). Feedback on the writing process and form were initially popular with educators. The "process approach" focused on learner-educator encounters, whereby writers worked through several drafts guided by feedback from educators. As for the form of feedback, both written and oral feedback were provided through learner-educator interaction. Slowly, the emphasis of WCF shifted from the mechanical accuracy towards the discovery of meaning through writing and rewriting. Feedback came forth as a powerful resource in second and foreign language acquisition (Freedman, 1985).

Over time, feedback practices and research increasingly became shaped by interaction theories that highlight the importance of the individual reader-dialogic nature of writing. Instead of writing for a generalized audience, students were now encouraged to craft their texts with a focus on real individuals, attaching significant value to reader response, as noted by Probst (1989). Consequently, this approach fostered the engagement with peer feedback and the incorporation of feedback from various sources (Zhang, 1985).

In more recent times, written corrective feedback came to be recognized as a crucial component for facilitating learners' development of writing skills within genre-oriented approaches. These approaches draw upon sociocultural theories of scaffolded instruction and learning as a social practice. Within this framework, feedback assumes importance by offering learners the necessary rhetorical choices essential for acquiring new academic literacy skills and by aiding learners in navigating their engagement with new practices and knowledge. It is crucial to acknowledge that this also involves considerations of teacher control and socio-political dominance (Schachter, 1991). As a result, these directions led to the emergence of student agency and empowerment in second and foreign language acquisition shedding light on the importance of allowing learners to independently create their own written texts while addressing their individual needs and expectations.

In the 1990s, more researchers developed an interest in different modes of error correction (Kepner, 1991; Hyland, 1998; Zhang, 1995; Truscott, 1996). While research backed up the positive attitude of learners towards educator's corrective feedback on writing (Hyland, 1998; Zhang, 1995), the effectiveness of WCF on SL/FL writing remained a grey area to be further explored. Early L2/FL researchers argued about the value of WCF debating that it may not only be unhelpful but also have a negative impact such as discouraging learners from acquiring the target language

(Kepner, 1991; Sheppard, 1992). In was at this time when Truscott strongly argued that there is very little benefit of WCF and educators should drop it altogether (Truscott, 1999). He suggested that educators follow a process approach to encourage learners to write uninhibited by language correction. On the other hand, research data indicated that teachers of SL/FL see the need for feedback provision, and learners of a second or foreign language specifically expect their teachers to provide WCF (Chandler, 2003; Ferris, 2002; Ellis, 2008). Learners of a SL/FL do not seem to associate self-worth with errors made in writing, and hence are not discouraged by WCF as suggested by Truscott (Leki, 1991; Schachter, 1991).

Research conducted in more recent years, specifically in the 2000s, strongly support the effectiveness of WCF particularly on explicit linguistic features as compared to no feedback (e.g., Bitchner & Knotch, 2010; Ellis et al., 2008). Moreover, some longitudinal studies further assert the positive impact of WCF on improving language accuracy in second and foreign language writers over time (Chandler, 2003; Ferris, 2002). As emphasized by Hyland and Hyland (2019), in the last decade, research in L2 writing, especially written corrective feedback provision, has undergone yet another notable transformation. This shift is evidenced by a broader range of experimental studies that explore the effectiveness of different types of WCF. Moreover, there has been an increased focus on factors such as learner agency, active participation, and perceptions of WCF, autonomous learning such as self-correction, as well as collaborative work such as peer feedback (Chen, 2016; Crosthwaite, Ningrum, & Lee, 2022; Han, 2017; Han & Hyland, 2015; 2018; Rouhi et al., 2020; Tsao, 2021; Zhang & Hyland, 2018). One thing is common to all the above-mentioned studies, and that is all the research data confirm that WCF is a key component of teaching and learning writing in L2/FL. In the following sections, the effectiveness of different

types of WCF as well as factors that are the new focus of corrective feedback research will be discussed.

3.4 Types of Written Corrective Feedback

In light of the aforementioned evidence, feedback appears to play a vital role in the processes of second and foreign language learning, as its primary objectives involve the development of learners' linguistic competences and improvement of their language performance. Corrective feedback has the potential to incorporate new rules, structures, and vocabulary of the target language, facilitating learning and acquisition. Its advantages extend beyond raising the learners' awareness of their weaknesses and equipping them with knowledge and strategies to address those areas. WCF can also identify the learners' strengths and facilitate improvement. Moreover, feedback provision can be valuable for teachers, as it may allow them to identify difficulties that their learners' face throughout the learning process. It can also pose as a great tool to evaluate teaching strategies and methods of instruction.

A variety of written corrective feedback types are available to support students' writing development. Mi-mi (2009) identified five distinct methods of feedback, namely teacher written feedback, peer feedback, self-monitoring, teacher-learner conference, and computer-mediated feedback. However, this study will specifically focus on teacher written corrective feedback compared to peer and self-feedback as well as direct vs indirect and focused vs unfocused as the primary focus of investigation.

3.4.1 Direct vs indirect written corrective feedback

The impact of two types of written corrective feedback strategies have particularly been researched in the field of second/foreign language acquisition to examine the extent to which they facilitate accuracy in written output. The first type is direct feedback, where educators provide correction for grammatical errors, and the second type is indirect feedback, where educators only indicate errors by underlining, highlighting, or coding the error, without providing the correct form to learners (Ferris, 2012). According to Bitchener and Knoch (2008), direct written corrective feedback can be described as the explicit action undertaken by the educator, wherein the accurate linguistic form or structure is directly presented to the learner, either in close proximity to or surpassing the detected linguistic error. This form of feedback can involve actions such as crossing out unnecessary words/phrases/morphemes, inserting missing words/phrases/morphemes, or offering the accurate form or structure. Ellis (2009) described direct feedback as the feedback provided by the teacher by showing the correct form of language while indirect feedback as the feedback given by the teacher by indicating the errors students make but not correcting them. According to Bitchener (2008), indirect feedback involves signaling the presence of errors in written work, thereby indicating that mistakes have been made. This signaling can take the form of underlining the errors or using error codes placed above the erroneous portions. Consequently, students are tasked with the responsibility of identifying and correcting the errors that have been indicated, rather than receiving direct, explicit corrections from the teacher. Furthermore, Bitchener and Ferris (2012) suggest that direct WCF has more recently incorporated written meta-linguistic explanations, which entail providing grammar rules and examples of correct language usage.

The existing literature on WCF, as evidenced by studies conducted by Ashwell (2000), Chandler (2003), Ferris and Hedgcock (2005), and Polio et al. (1998), indicates a prevailing preference among teachers for employing indirect feedback strategies. Only a limited number of studies have explored the effectiveness of direct feedback, which involves learners receiving explicit corrections, through a comparison of an experimental group with a control group that does not receive any feedback. Those against providing direct corrective feedback within educational settings argue that learners should actively participate in the correction process. The rationale behind this perspective is that if all errors are rectified on behalf of learners, they may develop a tendency to take correction for granted and fail to engage in critical self-reflection concerning their errors. Consequently, rather than being provided with the correct forms outright, learners should be motivated to independently identify and address their own errors (Russell & Spada, 2006).

However, an increasing amount of evidence advocates that direct WCF can improve writing precision in certain contexts (Bitchener et al., 2005; Ferris, 2006; Russell & Spada, 2006; Sheen, 2007; Bitchener, 2008; Ellis et al., 2008; Hartshorn et al., 2010). Research indicates that, unlike educators, learners may prefer direct, explicit feedback rather than indirect implicit feedback (Ferris & Roberts, 2001; Ferris et al., 2000). This can be especially true for learners who lack motivation for learning or have low proficiency and who may not make the effort to look for the correct form of the errors indicated by indirect feedback (Roberts, 1999). In general, both educators and learners acknowledge that, regardless of its type, WCF provided by the educator is vital when teaching writing (Cohen & Cavalcanti, 1990; Ferris, 1995; Ferris, 2002). This fact is particularly true for L2 writing since its purpose is not only to teach about the conventions but to reinforce grammatical forms in the L2 as well (Paulus, 1999).

As early as in 1987, Cohen proposed that writing feedback on learners' errors is too time-consuming for teachers as well as a waste of valuable classroom time. A decade later, stirred up by Truscott's (1996) paper "The Case Against Grammar Correction in L2 Writing Classes", a considerable body of research evidence in ESL/EFL acquisition supported the concept that direct feedback that focuses on correcting errors does not seem to produce significant improvements in learning of a second or foreign language. Truscott (1996) brought forth an argument over types of corrective feedback given to L2 students on their written output. He claimed that direct grammar correction had no impact on learners' uptake. By grammar correction, Truscott meant "correction of grammatical errors for the purpose of improving a student's ability to write accurately" (p. 329). He also suggested that direct feedback might even be detrimental to learners; therefore, it should have no place in L2 writing classes.

Anchored on studies by Kepner (1991), Sheppard (1992), and Semke (1984), Truscott deduced that research evidence supporting direct error correction does not support the hypothesis that learners' accuracy in writing improves with that type of corrective feedback. In addition, Truscott suggested that direct error correction may even be harmful with respect to the amount of time and effort put into it. This investment in written corrective feedback also shifts attention from the more productive aspects of L2 writing limiting the time dedicated to more writing activities in the classroom context. Truscott's main argument was that firstly, learning an L2 encompasses complex processes of passing information from educator to learner which may not always result in uptake. In this sense, error correction functions as a form of information transfer; therefore, one should not expect learners to take in everything the educator passes on. Moreover, Truscott highlighted that research has shown that L2 learners follow a natural, pre-determined order when acquiring specific grammatical features which is not affected by instruction. Hence, he deduced

that error correction, which often fails to match learner' present stage of interlanguage development, does not have much value.

Furthermore, Truscott labelled the outcome of grammar correction as pseudo-learning because it is "typically done in terms of isolated points and without reference either to the processes by which the linguistic system develops or to the learner's current developmental stage" (p. 347). He also argued that grammar correction is unlikely to be fruitful because its success stands on some other conditions to be met. For example, educators must be proficient in the language and capable to recognize and explain all errors. Added to this, they should invest time and effort, and have the patience required for high-quality correction.

On the other hand, Truscott suggested that learners may lack the motivation to look into the educators' feedback and may only attain a superficial understanding of the educators' corrective feedback without learning engagement. As a result, learners are likely to repeat the same errors again in the future. Finally, Truscott proposed that the unpleasantness of corrective feedback may trigger L2 anxiety in learners and would push learners to write shorter pieces in order to avoid making errors, which in turn hinders the development of their linguistic complexity. Also, focusing on the processing of low-level grammar errors diverts the attention of both educator and learner from higher-level facets of writing like organization and content. Despite his call for the abandonment of error correction, Truscott (1999) also acknowledged that he could not firmly claim that research had proven direct error correction not beneficial. However, he proposed that giving direct corrective feedback might not be a good idea, and that future research might point to conditions in which it might be considered a good practice. Grounded on the concept that explicit knowledge is irrelevant to L2 acquisition, Truscott argued that explicit or direct written corrective feedback can only contribute to explicit knowledge.

Since Truscott (1996), a substantial amount of debate over types of corrective feedback has been spawned in published articles (Ellis, 1998; Ferris, 1999, 2000, 2002). Based on a study by Ferris et al. (2000) which explored the effects of different treatment conditions on both text revisions and new pieces of writing, it was reported that direct error correction led to more correct revisions (88%) than indirect error feedback (77%). However, over the course of the semester, learners who received indirect WCF reduced their error frequency ratios significantly more than learners who received direct WCF. Also, Ferris (2002) proposed that indirect corrective feedback appears to be more effective because learners are required to be cognitively engaged with the feedback in order to figure out the correct form on their own.

Although data from numerous similar studies have supported Truscott's standpoint, another big pool of counter-studies have argued that direct feedback may be more effective in improving learners' grammatical accuracy in written compositions (Bitchener & Knoch, 2010; Chandler, 2003; Van Beuningen et al., 2012). Contrariwise, these researchers have proclaimed that learners are more likely to notice explicit corrective feedback (Ferris, 2010).

In an experimental study, Carrol & Swain (1993) investigated the effects of direct and indirect written corrective feedback in 100 Spanish-speaking ESL adult learners. The researchers wanted to understand whether feedback could help learners assimilate a simple structural change in a rule after being taught the alternation. Subjects, who were tested twice on their written production, were divided into five groups according to the type of feedback they received. Group A subjects were given explicit metalinguistic feedback, group B subjects were told that their response was incorrect without giving them corrective feedback, group C subjects were given implicit feedback and were corrected when they erred, giving them a model of the response desired along with implicit negative evidence that their response was incorrect., and finally group D subjects were asked if they were sure about their

response. The fifth group was a control which received no feedback. Analysis of results showed noteworthy differences between all of the groups including the control group. Results indicated that the group receiving direct written corrective feedback performed significantly better than the indirect groups.

Ferris and Roberts (2001) conducted a study involving 72 ESL students to examine their ability to self-edit their written work. They discovered that there were no notable differences between students who received direct feedback and those who received indirect feedback. In the direct feedback group, all errors were underlined, coded, and corrected, while the indirect feedback group had their errors underlined without codes. These findings align with the results of Robb et al.'s (1986) study, which Truscott (1996) used to support his argument. However, Ferris and Roberts (1999) added a control group to their research. This control group did not receive any feedback, and it was found that they had a significantly higher error rate compared to the other groups by the end of the study. Bitchener (2008) points out that in Ferris and Roberts' study, the post-test only involved revising the initial text. Therefore, Bitchener argues that this study can only be regarded as assessing revision skills rather than learning, and its validity is limited to this aspect.

In another study on the effects of direct and indirect written corrective feedback types with respect to grammatical accuracy of EFL learners, Campillo (2003) reported that a combination of the two types of corrective feedback provided better learner uptake and therefore, learner improvement. In his study on the effect of explicit and implicit CF types on grammatical accuracy of EFL learners, Campillo (2003) reported that combination of these two CF types as repetition of error and recast provided higher rates of success. Campillo (2003) based this assumption on previous research on direct and indirect feedback. The researcher referenced Lightbown and Spada's (1990) analysis of the effect of direct corrective feedback in an intensive ESL

communication classroom, which revealed that formal language teaching contributed positively to the learners' linguistic and grammatical accuracy. Hence, Campillo (2003) identified that implicit CF, which had been thoroughly investigated and integrated into teaching settings, had only yielded positive results.

Another study conducted by Van Beuningen (2008) examined the long-term effects of direct and indirect feedback on second language learners (SLL) of Dutch. The study involved three classes with a total of 62 students, divided into four groups. The first group received direct feedback, the second group received indirect feedback, the first control group received no feedback and focused on new writing tasks instead of revisions, and the last group was asked to revise their texts without receiving any feedback. The results indicated that corrective feedback effectively improved students' writing accuracy, showing short-term effects for both the direct and indirect feedback groups. However, significant long-term effects were only observed in the direct feedback group when measured on a completely new writing task. All three groups that had the opportunity to revise their texts produced fewer errors in their revised versions compared to the original production. While all groups showed improvement in their revisions, only the direct and indirect feedback groups demonstrated significant accuracy effects in the new writing task. Therefore, Van Beuningen concluded that the revision process itself was not the sole reason for the accuracy improvement in these groups; rather, the type of feedback provided played a crucial role. Additionally, all four groups took an initial test, which showed no significant differences between them, indicating that previous knowledge did not significantly affect the results of this study.

The study conducted by Sheen (2007) focuses on feedback regarding articles. Sheen's study took place in an ESL setting, where 91 out of 111 students were divided into three groups after a pretest. One group received direct feedback, another received direct feedback along with a meta-

linguistic comment, and the control group did not receive any feedback. Apart from the targeted feedback on articles, the treatment groups also received some feedback on other grammatical features to avoid solely focusing on articles. Following the feedback provided after the pretest, an immediate post-test was administered, followed by a delayed post-test 3-4 weeks later. The results revealed that both treatment groups outperformed the control group, with the direct feedback group with a metalinguistic comment showing the most significant long-term effects.

Bitchener (2008) expanded on the study conducted by Bitchener et al. (2005) to investigate the effects of direct focused feedback. This study specifically aimed to measure the impact of focused direct feedback on the use of articles, similar to the study by Sheen (2007). It involved 75 ESL students in Auckland, New Zealand, who were randomly assigned to four groups. Three of the groups received direct feedback in different forms, including written and oral meta-linguistic explanation, written meta-linguistic explanation only, and direct feedback without any explanation. The fourth group served as the control group, receiving no feedback except for some comments on the content of their texts. The structure of the study included a pre-test, an immediate post-test, and a delayed post-test two months later. All tests followed the same format, where students were shown a picture and asked to describe in writing what was happening. The results demonstrated a significant advantage for all direct feedback groups compared to the control group, from the pre-test to the immediate post-test. The improvements observed in the feedback groups were maintained from the immediate post-test to the delayed post-test. Bitchener argues that this suggests the effects can be attributed to gains in writing skills resulting from the feedback, as no additional feedback on these grammatical features was provided between the immediate post-test and the delayed post-test.

The following year, Bitchener and Knoch (2009) conducted a new study involving 39 ESL students in a six-month longitudinal study. The treatment groups received the same three types of direct feedback, focusing on the same grammatical features (article use) as in Bitchener's previous study. However, this time, no control group was included due to ethical reasons of not withholding feedback from some students. Four tests were administered in this study, using the same format as Bitchener's (2008) study, where students described the events depicted in a picture. The first test was conducted on the first day of the study, followed by an immediate post-test two weeks later, the first delayed post-test after two months, and the final delayed post-test six months after the initial pre-test. Significant effects were observed for all three treatment groups from the initial test to the final delayed post-test, but there were no significant differences between the groups. Based on these findings, Bitchener and Knoch suggest that providing direct feedback alone is sufficient for students, and additional time spent on extra feedback activities may not be necessary. They acknowledge limitations in the small sample size but do not mention the absence of a control group as a limitation.

Xu (2012) piloted a detailed study on the delivery of educators' corrective feedback in Chinese EFL classrooms. He found direct types of WCF to be more useful when it comes to learner uptake whereas indirect WCF types seem to be more effective when it comes to students' self-correction. Therefore, if learners are going to be asked to go over their errors in an attempt to correct those errors as a self-study strategy, then indirect WCF would be effective. When no such step is asked of students, then direct WCF would be more effective, as learners can go over their errors by reading the corrective feedback provided by the educator. In such a case, where learners are not required to correct their errors, indirect WCF would not yield positive outcomes with respect to student uptake. This is true especially for students with low language competency

because they cannot come up with the right answers themselves if the educator has not provided them with direct WCF. Consequently, providing the learners with the correct form through direct feedback might be more effective because it guarantees that all learners will at least have a decent level of engagement with the corrective feedback leading to assimilation.

Rahimi and Asadi (2014) conducted an investigation aiming to assess the influence of direct feedback, indirect feedback, and content feedback, on the writing accuracy of EFL learners. Over a period of nine months, 44 Iranian EFL learners were selected as participants and divided into three groups. The first two groups were provided with both content and form feedback, while the third group solely received content feedback. The study concentrated on specific language elements, such as verb errors, noun ending errors, article errors, inappropriate word usage, and sentence structure errors. The results of the study demonstrated that students who received direct and indirect feedback displayed notable advancements in their revision process compared to those who solely received content feedback. However, with regard to the long-term enhancement of accuracy, the outcomes indicated that students who received indirect feedback displayed greater accuracy in their essays over time compared to those who solely received content feedback. No significant disparity was observed between the groups that received direct feedback and indirect feedback in terms of long-term accuracy improvement. Rahimi and Asadi (2014) concluded that both direct and indirect feedback demonstrated limited effectiveness, while content feedback exhibited improvement in accuracy in subsequent essays. In relation to the quality of writing, all three groups demonstrated improvement, but no noteworthy distinction was detected among them. These findings align with the assertions made by Truscott (1996) and Truscott (1999), suggesting that content feedback is adequate for augmenting writing quality. The implications of these

findings for scholars in the field of second language writing suggest that content feedback appears to be sufficient when considering long-term enhancement in writing accuracy.

In addition, Lee Chieng Shea (2014) conducted a study to examine the impact of direct and indirect WCF on the utilization of present tenses among ESL learners. The research was conducted in Malaysia with a sample of 20 secondary school learners, evenly distributed into two groups. The study was conducted in 3 stages; pre-test, treatment, and post-test. The first group received direct WCF, while the second group received indirect WCF. The errors made on each stage were marked, counted, and compared among each stage of their writings as well as between the two groups. The findings indicated that learners who received direct corrective feedback achieved higher scores in the post-test compared to those who received indirect corrective feedback. Furthermore, the results revealed that although the average number of errors made by the group receiving indirect feedback did not decrease in the post-test, there was a decrease in the average number of errors in their revised texts. This suggests that indirect corrective feedback was effective in helping students retain their language learning over time. Interviews were also conducted to gain insights into additional factors influencing students' writing performance. The results identified two themes, namely motivation and scaffolding, which influenced the effectiveness of written corrective feedback on students' writing. Additionally, three anecdotal findings emerged from the interviews. These findings related to students expressing concerns about content-related knowledge when writing an essay, the suggestion for teachers to employ various strategies when correcting different types of errors based on severity, and the impact of students' focus on exams rather than on their language learning. Overall, the results of the study indicate that written corrective feedback is somewhat effective in reducing errors in students' writing.

Jamalinesari et al. (2015) conducted a study in an EFL setting to investigate the effectiveness and efficiency of direct and indirect feedback provided by teachers on students' composition writings. The research took place at a private English language learning institute and involved two classes, each consisting of ten female intermediate students. They attended class every second day for 20 sessions for each level based on a twelve-level EFL course. Every session lasted 1.5 hours. The students were all teenagers between 13 and 17 years of age. The students in both classes were given essays as homework for 10 consecutive class sessions, and their errors were analyzed and recorded separately. The focus was on common local errors in third person singular *-s* ending, plural *-s* ending, regular and irregular past tenses of the verb, subject-verb agreement, parts of speech, present perfect (*have/has*+ past participle), passive verbs (*to be* + past participle), and definite and indefinite articles (*a, an, the*). For the class which was given indirect feedback, the teacher indicated and located the errors by drawing a line under the incorrect parts or writing short comments. Then the students were asked to revise their writings and submit them to the teacher next session. Their revised versions were then compared with the previously recorded errors and the improvements were checked and recorded. In the other class the teacher underlined the incorrect forms in the students' writings and provided them with the correct forms. They were supposed to improve in later writings. The results revealed that the class receiving indirect feedback showed more substantial improvement compared to the class receiving direct feedback. Data also revealed that the total accuracy of the participants varied significantly across the ten writing sessions. In other words, there was not a steady progress in improvement from one time to another for any structure analyzed.

In 2017, Westmacott conducted an action research study at a university in Chile, focusing on intermediate-level learners. The study involved a carefully planned intervention aimed at

addressing a perceived issue, and systematic data collection was employed to evaluate the effectiveness of the intervention. The teacher/researcher made a deliberate shift from providing direct feedback to indirect, coded feedback. The participants were six females, all in their twenties, whose first language was Spanish. Their responses were examined in relation to these two types of feedback. The participants had acquired English through a combination of classroom-based learning and immersion experiences, and their English proficiency level was generally considered to be close to "upper intermediate". To analyze the feedback provided, the study examined the number of errors and instances of direct and indirect feedback in four assignments that received coded feedback. A comparable sample was obtained by analyzing the final four assignments, which had solely received direct feedback from the teacher. The collected data provided insights into how the participants' responses were influenced by the learning context and individual differences. Within this EFL setting, the majority of students expressed that they found indirect feedback to be more valuable as it stimulated deeper cognitive processing and facilitated learning. Furthermore, there was evidence suggesting that indirect feedback could reinforce grammatical knowledge and encourage autonomous learning behavior.

Al Harrasi (2019) conducted a study with the objective of examining the effectiveness of direct and indirect written corrective feedback in enhancing the grammatical accuracy of Omani EFL students in relation to two newly-introduced linguistic structures: the comparative and prepositions of space. The research employed mixed methods, utilizing a quasi-experiment and a think aloud protocol (TAP) to address various research inquiries regarding written CF. The quasi-experiment involved dividing the participants into a control group and two treatment groups. One treatment group received explicit corrections written above their errors, while the other treatment group had their errors underlined without any explicit corrections. Since the linguistic structures

were unfamiliar to the participants, an instructional lesson on these structures was provided a week prior to data collection. A pre-test was administered, followed by a revision task where students were asked to revise their initial work. Three days after the revision, a new task focusing on the same linguistic structures (immediate post-test) was conducted to measure short-term learning effects. Delayed post-tests were conducted six weeks after the pre-test to assess the long-term effects of the treatment. In all tests, students were required to describe pictures. The results of the quasi-experiment indicated that both direct and indirect WCF had a positive impact on students' grammatical accuracy during revision for the comparative and prepositions of space. However, a significant effect was only observed for the direct WCF group. The improved accuracy observed during revision was maintained in the new writing task (immediate post-test) for the comparative structure, but not for prepositions of space. Interestingly, the indirect CF group showed even greater improvement than the direct CF group in the new task (immediate post-test) specifically related to the comparative structure, suggesting a deeper engagement with the feedback in the indirect CF group. No long-term effects were observed for either direct or indirect written CF on either linguistic structure. These findings highlight the short-term effectiveness of written CF on both previously learned and newly-introduced linguistic structures.

Another study conducted in Spain by Conesa, Manchón, and Cerezo (2019) provided fresh empirical insights into the impact of WCF on language learning and on one's own writing focusing on various dimensions of accuracy. The research investigated potential interactions of direct versus indirect WCF, the nature of errors (grammatical versus non-grammatical), and the feedback perspective (accuracy versus acquisition) within a single research framework. To achieve this goal, 46 English major learners enrolled at a Spanish university took part in a pretest-posttest study design. The participants were divided into two intervention groups in addition to a control group.

The intervention groups received direct and indirect WCF respectively. All groups were instructed to engage in written languaging. The control group composed and revised their texts without WCF but also practiced written languaging. The analyses conducted reveal several key findings like the limited integration of the WCF received, positive short-term and long-term advantages resulting from the combined influence of WCF and written languaging, and varied effects of WCF type on different error categories. Concerning the accurate correction of grammar errors, both direct and indirect written corrective feedback groups did significantly better than the control group. The direct group benefitted significantly more than the indirect group by successfully correcting almost half of the grammatical errors for which they had received focused feedback (49.56%), while the indirect group corrected 41.78% of their grammatical errors. Both feedback groups successfully corrected verb tenses, prepositions, and verb forms, as well as needless articles or missing articles. In addition, the direct group also successfully corrected sentence structure errors.

Uzun and Koksa (2020) looked into direct or indirect written corrective feedback to understand which type is more beneficial. Participants were a group of 28 students in the English Prep Year of an engineering department at a public university in Turkey. Utilizing an action research design, the observation and reflection phases of the study included the observation of the written corrective feedback practices in the group. In the action phase, the students were divided into six groups for a collaborative writing task. Following the completion of the task, three groups were provided with direct written corrective feedback while the remaining three were given its indirect counterpart. Evaluation data was collected through semi-structured teacher observations, voice records of participant discussions and responses to guided reflection questions. The findings revealed that both types of written corrective feedback could be beneficial for the participants, however, indirect feedback was more suitable for classroom use.

Mafulah and Basthomi (2021) carried out a research study to investigate the impact of direct corrective feedback on the writing quality of third-year students in the English Education department at Universitas PGRI Kanjuruhan Malang, Indonesia. A total of 26 participants, all of whom were registered in an Essay Writing Class, constituted the participant pool. These students were subjected to a dual-feedback system, encompassing both direct and indirect modes of feedback, directed at their written compositions. The researchers meticulously analyzed the students' written works and conducted a comparative assessment of their individual performance scores to evaluate the impact wrought by the nature of feedback administered. The duration of the study covered two weeks, comprising a total of four instructional sessions held over the span of the aforementioned two weeks. Each student was required to write two compositions on different topics and received both types of feedback. To balance the effect of receiving different feedback, the participants were divided into two groups, with 13 students in each group. In the initial meeting, students were tasked with composing their first written piece on the subject of Indonesian Forest Fires within the confines of the classroom setting. Group one was designated to be the recipient of direct feedback, whereas group two was allocated indirect feedback. In the subsequent meeting, students received their initial compositions and were guided to engage in a process of in-class revision prior to the submission of their ultimate drafts. The teacher analyzed the final revisions made by the students. In the third meeting, the students were asked to write their second composition on the topic of several artists being appointed as parliament members. In this meeting, the order of feedback was reversed such that group one received indirect feedback, while group two received direct feedback. In the final meeting, participants received their second composition back and were given the chance to make a final revision based on the feedback provided. All revisions were made in the classroom. The students' written compositions underwent rigorous

evaluation employing a comprehensive scoring rubric, which encompassed a multifaceted assessment encompassing elements such as content, structural organization, language proficiency (including grammatical accuracy), lexical proficiency, and mechanical aspects. To gauge the impact of the feedback provided, the researchers compared the individual scores of the students when they composed their writing after receiving direct corrective feedback versus when they revised their writing with scaffolding indirect corrective feedback from the teacher. The results revealed a notable disparity in the quality of students' written compositions, with a higher quality observed when students received direct feedback in comparison to their counterparts who were provided with indirect feedback. Direct feedback emerged as a more effective means of facilitating students in the revision process, resulting in improved accuracy and refinement in their draft revisions, as compared to the relatively less effective impact of indirect feedback.

Furthermore, to compare the impact of direct and indirect written corrective feedback on the grammatical accuracy, Sherpa (2021) conducted a study to examine the impact of the aforementioned types of WCF on the grammatical accuracy of past tense and article usage in narrative essays written in English by grade eight learners. The study also aimed to investigate the potential influence of WCF on the syntactic complexity of the learners' writing. A total of 45 participants were purposively selected and categorized into three proficiency levels: high, average, and low. They were then randomly assigned to two treatment groups that received direct WCF and indirect WCF, and one control group that received no WCF. The study consisted of a pre-test, three treatment sessions, a post-test, and a delayed post-test. During the treatment sessions, the participants were asked to write narrative essays on a given topic. The researchers analyzed the collected data and found that the group receiving indirect WCF demonstrated significantly higher grammatical accuracy in the use of past tense and articles compared to both the direct WCF group

and the control group at the post-test. However, no significant effect of WCF on the syntactic complexity of the learners' writing was observed

In another recent study, Wondim et al., (2022) investigated the role of WCF on students' writing achievement. They investigated whether there were statistically significant differences in writing achievement between experimental groups that received either direct or indirect WCF. A quasi-experimental research design was employed, utilizing three intact first-year classes from a university in northwest Ethiopia. The study included two experimental groups and one comparison group. Results showed that WCF played a significant role in improving learners' writing performance. Additionally, the study revealed that learners in the group that received direct WCF accompanied by metalinguistic explanations performed better in writing paragraphs compared to their counterparts in the indirect WCF group. Based on the findings, it can be concluded that the provision of WCF is crucial in the Ethiopian context, and learners can derive greater benefits from the correct usage of linguistic structures when metalinguistic explanations are provided alongside direct WCF.

The positive impact of direct WCF was also evident in a study with young learners conducted in the Spanish context. Roothooft, Lázaro-Ibarrola, and Bulté, in their 2022 study, looked into draft quality and task motivation by measuring learners' engagement in a three-stage writing task. A total of 75 primary school students aged 10–12 years from a public school in Spain took part in the study. These students belonged to six different classes, three of which were fifth grade and three were sixth grade. The 75 young participants were divided into a task repetition group (n = 21), a group that received direct feedback (n = 30), and a group that received feedback via model texts (n = 24). The study took place over three consecutive weeks. The teachers integrated the activities as part of their regular lessons. In the first session, all groups were asked

to write a story for a series of five pictures. One week later, the second session took place where participants carried out the same task which was writing the story again. The students in the direct WCF group received a copy of their initial writing with errors crossed out and corrected, and they were given 20 minutes to look at the corrections and try to understand them. The students in the model text group received their initial writing and two alternative models of the same story. One week after the second treatment, all groups were asked to write the same story again, but this time they had no access to their previous work or to any corrections or models. Student who repeated the writing task showed very slight improvement in complexity across drafts. Participants who received direct WCF significantly improved in accuracy. The group that received models also improved in lexical diversity and text quality. The group that received direct WCF improved its accuracy from draft one to draft 2; it also outperformed the other two experimental groups on the measure of error rate, and it outperformed the task repetition group on the measure of error-free clauses. It thus appears that the explicitness of the direct feedback intervention helped these less proficient learners notice the disparity between their inaccurate output and the accurate alternative furnished by the instructor. Within the group repeating the task, students exhibited sustained levels of motivation throughout the writing process, attributed to their perception of the task's simplicity. Conversely, task motivation experienced a marginal decline during instances of direct corrections and, notably, in the period preceding the final draft when models were introduced, as these were considered to be beneficial for learning but challenging by the students.

As the preceding studies sum up, several issues on the value of error correction feedback on L2 learner writing have been investigated, but further research is required in order to examine the effects of direct and indirect corrective feedback. Ferris (1999) suggested that educators should explore which type of WCF leads to short-term or long-term improvements and whether learners

show improvement on specific types of errors. The specific effects of direct and indirect feedback remain uncertain due to conflicting findings. Some studies (e.g., Lalande, 1982; van Beuningen et al., 2012; Ferris et al., 2012; Rahimi & Asadi, 2014; Ghandi & Maghsoudi, 2014; Sherpa, 2021) suggest that indirect WCF may be more advantageous in certain situations. However, other studies (e.g., Chandler, 2003; Bitchener & Knoch, 2010; Lee Chieng Shea, 2014; Wondim et al., 2023) provide evidence supporting the effectiveness of direct WCF. Additionally, some studies (e.g., Rob et al., 1986; Frantzen, 1995) found no significant differences between distinct forms of direct and indirect WCF. Further research is therefore necessary to draw general conclusions about the effects of direct and indirect feedback in different contexts.

The varying outcomes reported in the studies discussed above should not be interpreted as evidence against the value of WCF. Rather, they highlight the intricate nature of WCF and the numerous variables that appear to impact its effectiveness (Nassaji & Kartchava, 2017). The metanalysis conducted by Kang and Han (2015) concludes that the effectiveness of written corrective feedback is influenced by factors such as learners' proficiency level and teaching context. Furthermore, the mixed findings regarding different types of WCF can be attributed to the characteristics of the errors themselves (Ferris & Roberts, 2001). For example, Shintani et al. (2014) discovered that WCF was effective for one specific structure, the hypothetical conditional, but not for the indefinite article. Similarly, Suzuki et al. (2019) reported the effectiveness of WCF for only the past perfect tense. Bitchener and Storch (2016) and Suzuki et al. (2019) commented on these diverse results and suggested that the effectiveness of WCF is influenced by the grammar structure being addressed, with WCF being more effective for rule-based errors (Bitchener & Ferris, 2012; Guo, 2015) than for idiosyncratic errors. Ferris (2011) asserted that "an untreatable error is idiosyncratic" (p. 36). She further stated that "untreatable errors include most word choice

errors, with the possible exception of some pronoun and preposition usage, and unidiomatic sentence structure (e.g. problems with word order or with missing or unnecessary words)" (p. 36). The following subsection delves into further types of feedback, namely focused vs unfocused written feedback and related previous studies conducted within diverse contexts.

3.4.2 Focused vs unfocused WCF

In recent years, there has been abundant debate regarding whether educators should provide unfocused feedback and correct all errors, or give focused feedback by limiting feedback to a few particular linguistic features. While most studies have looked into unfocused WCF, a few recent studies have investigated the effect of focused WCF directed at specific L2 features only. The results of these studies have shown that focused WCF facilitates learning (Bitchener, 2008; Sheen, 2007), challenging the traditional, unfocused approach to providing WCF on all errors in learners' writing. Focused feedback has been shown to be more beneficial when compared to unfocused feedback in several L2 research studies (Ellis et al., 2008; Sheen et al., 2009). This claim is rooted on the concept that focused feedback directs the learners' attention towards one or two weak aspects of their writing making correction less ambiguous and assimilation easier.

Some researchers who argue that focused written corrective feedback seems to have greater advantages in enhancing learners' accuracy compared to unfocused WCF (Bitchener & Storch, 2016; Ellis et al., 2008; Harrasi, 2019; Lee, 2019; Sheen, 2007; Sheen et al., 2009; Van Beuningen et al., 2012) state that focused WCF does not overwhelm the attentional capacity of the learners, consequently enabling them to respond more effectively to the provided feedback (Bitchener & Storch, 2016; Frear & Chiu, 2015). Frear and Chiu (2015) emphasized that unfocused WCF requires higher levels of concentration and control, leading to an increased cognitive load when

processing the L2 information provided by WCF. Consequently, this can diminish learners' awareness and hinder their ability to differentiate between the expected output and their own production. Moreover, unfocused WCF may not be as effective for learners with lower proficiency levels, as they may struggle to respond to excessive feedback and fail to grasp the distinctions between desired and actual output (Gass, 1997; Schmidt, 2001; Schmidt & Frota, 1986). Only few studies conducted thus far have directly compared focused and unfocused WCF (Ellis et al., 2008; Frear & Chiu, 2015; Rahimi, 2019; Sheen et al., 2009).

In this direction, the study by Sheen's (2007), previously reviewed in relation to the direct vs indirect distinction, also compared focused and unfocused corrective feedback with respect to errors in English article usage proposing that WCF works best when it is thorough and focused on a specific linguistic aspect. The participants of this study were 80 L2 English intermediate level learners of different L1 backgrounds from 6 classes distributed to four groups: Focused Written CF group (n = 22), Unfocused Written CF group (n = 23), Writing Practice Group (n = 16) and Control Group (n = 19). Results showed that all three experimental groups improved in grammatical accuracy over time in all the post-tests. The focused WCF group attained the highest accuracy gain scores for both articles and four other grammatical structures (i.e., verb to be, past tense, irregular past tense and prepositions). The unfocused group made the least progress. In general, these results suggest that unfocused WCF has limited pedagogical value. On the other hand, focused CF can contribute to improvement in grammatical accuracy in L2 writing. The results also put forward that doing writing tasks is of value by itself.

In a study conducted by Ellis et al. (2008), the research design involved a pre-test, immediate post-test, and delayed post-test, to examine the impact of focused and unfocused written corrective feedback on the accuracy of Japanese university students' use of English indefinite and definite

articles in written narratives. The focused group received correction exclusively for article errors in three written narratives, while the unfocused group received correction for article errors as well as other types of errors. Both groups demonstrated improvement from the pre-test to the post-tests, both in an error correction test and in a test involving a new narrative writing task. Additionally, both groups performed better than a control group, which did not receive any correction, in the second post-test. WCF was equally effective for both the focused and unfocused groups. The results did not indicate any superiority of unfocused WCF over focused WCF; however, participants in the focused group maintained their accuracy in the delayed post-test. The researchers established that as confounding evidence to Truscott's claim (1996, 1999), WCF can indeed facilitate acquisition.

In a similar ten-month study, Bitchener and Knoch (2008) examined the effects of providing focused WCF only on indefinite 'a' and definite 'the' article errors of L2 writers. The 52 low-intermediate L2 students in Auckland, New Zealand were assigned to groups that received focused WCF or no WCF. The students produced five pieces of descriptive writing for a given picture. The study found that those who received written corrective feedback on the two types of errors outperformed the control group on all four post-tests.

Later, Sheen et al. (2009) examined the effects of three different WCF treatments on the use of articles by 80 L2 English learners. The three conditions were direct focused, direct unfocused, and writing practice alone without any WCF received. The focused WCF group received corrective feedback on their article errors, while the unfocused WCF group had their errors in articles, copula be, regular past tense, prepositions, and irregular past tense corrected. The first two groups wrote two narratives and received WCF during the treatment sessions. The writing-practice group only did the narrative tasks without receiving WCF. As for the control

group, participants received no WCF. The acquisition of articles was measured by three versions of a narrative writing test, which asked the students to write a story based on a series of pictures. The results indicated that the focused group had an advantage over the unfocused group in both the immediate and the delayed post-tests. The focused feedback group exhibited significant improvements in language accuracy in the usage of articles suggesting that focused WCF is more effective than unfocused WCF

Similarly, Frear and Chiu (2015) analyzed the effectiveness of focused or unfocused indirect WCF with underlining. Conducted in a Taiwanese college setting, this study employed a quasi-experimental design that consisted of a pre-test, treatment, immediate post-test, and delayed post-test. The treatment involved two variations of indirect written corrective feedback (WCF): focused indirect WCF and unfocused indirect WCF. A control group did not receive any form of WCF. The tests utilized three writing tasks. With respect to weak verb accuracy and overall accuracy, the results showed that the focused and unfocused indirect WCF groups outperformed the control group in the immediate post-test and in the delayed post-test. It is proposed that learners in both the focused and unfocused indirect WCF groups were unable to consciously notice or comprehend the target structure after a single instance of WCF. Instead, the indirect WCF likely acted as a signal for learners to enhance their overall accuracy in writing new pieces during the post-tests.

In a more recent study, Rahimi (2019) examined the effect of two different types of written corrective feedback and revision on the writing accuracy of 78 intermediate French EFL learners. The participants were randomly assigned to four groups: two focused WCF groups and two unfocused/comprehensive WCF groups. The focused WCF groups received feedback specifically on word and sentence errors, while the unfocused/comprehensive WCF groups received feedback

on all types of errors. Additionally, one group from each of the focused and unfocused/comprehensive WCF groups was instructed to revise their essays, while the remaining groups were not given any revision tasks. All four treatment groups wrote three essays during Week 1 (T1), Week 8 (T2), and Week 14 (T3). Their essays were compared and the error means calculated. The findings indicated that both focused groups outperformed the unfocused groups on word errors at T2; however, there were no significant effects for revision. Similarly, the focused + revision group performed better than unfocused + revision group (with and without revision) at T2 and T3 with respect to sentence errors. Distinctively, the group that received focused revision exhibited superior performance in terms of writing accuracy compared to the other groups

Deng et al. (2022) investigated the effects of two feedback techniques (coded focused and unfocused written corrective feedback) on L2 learners in a tertiary institute in Hong Kong and employed a mixed-method approach including a classroom experiment and interviews. The 47 participants from three classes were grouped in experiment and control groups. The control group only received WCF on content and organization. On the other hand, the two experimental groups respectively received focused and unfocused linguistic WCF. The intervention lasted eight-weeks over an intensive summer course. WCF was provided for three grammar errors (articles, singular/plural nouns, and verb forms). In total, the students in the study completed six written pieces, but only four of them were analyzed for the purposes of this research. The findings indicate that students who received focused WCF demonstrated significantly better performance compared to the other two groups, although the impact varied depending on the type of error. On the other hand, no notable differences were observed between the unfocused WCF group and the control group. In-depth interviews were conducted to investigate how individual learners' metalinguistic understanding and active involvement influenced the effectiveness of WCF. The results showed

that learners who received focused feedback developed a more profound comprehension of the specific error types. The learners' proficiency in English and their engagement strategies also influenced the overall outcomes.

In another study by Wong, (2022) three gaps were studied. First, the use of definite and indefinite articles; second, students' perceptions of the advantages and disadvantages of focused and unfocused WCF; and third, learning contexts. The 14-week study, taking a sociocultural perspective, set out to fill these gaps by examining the effects of both focused and unfocused WCF on indefinite and definite articles. A pre- and post-error correction test, five narrative tasks and a questionnaire were administered to a group of 30 secondary students who were learning English as a second language in a Hong Kong school. Subsequently, stimulated-recall interviews were conducted with four participants of higher ability and four participants of lower ability in order to gain insights into their perceptions. Adopting a pre-test, immediate post-test, delayed post-test quasi-experimental design, the two experimental groups received focused or unfocused WCF respectively. A total of four interviews and a focus group interview involving six secondary English teachers were carried out during the post-intervention phase. The purpose of these interviews was to validate, challenge, or provide additional context to the collected data and its interpretations. By incorporating the teachers' perspectives and reactions to the student data, as well as the significant insights gained from the analysis, the credibility of the findings was enhanced. The study's findings indicate that there were enhancements in the mean accuracy scores of linguistic items in the delayed post-test and post-error correction test for both the focused and unfocused WCF groups. However, the focused WCF group demonstrated notably superior performance, displaying a heightened metalinguistic awareness of the specific errors targeted. In comparison, significant improvements in the immediate post-test were observed only among the participants in the

unfocused WCF group, suggesting that unfocused WCF led to short-term improvements in accuracy grades that were not sustained over time. Interestingly, despite the superior results of the focused WCF group, students still seemed to have a preference for unfocused WCF, possibly due to their prior exposure to predominantly unfocused WCF in school. Contrary to the typical practice of WCF, students perceived focused WCF as potentially detrimental to their future academic performance. Despite the cognitive strain caused by unfocused WCF, which impacted learners' processing capacity and created a negative and demotivating learning experience in English writing, higher-ability students believed that unfocused WCF was an essential step toward achieving academic excellence. On the other hand, lower-ability students were primarily motivated by the fear of losing face in front of their peers, which illustrates the influence of social interactions and peer relationships in language learning, in line with the sociocultural perspective of WCF.

In addition, Meniati et al. (2023) investigated how the integration of indirect focused and unfocused corrective feedback in a general medical course of English can support the development of academic writing skills for future technical contexts. In order to achieve this objective, a comparative study was conducted involving two groups of low-proficiency Iranian students in the field of medical sciences. Over an entire university semester, both groups received different treatments of written corrective feedback for their weekly writing exercises throughout. A control group was also included to establish a baseline for comparison purposes. The results indicated a notable improvement in paragraph writing skills for all three groups from the pre-test to post-test sessions; however, concerning the multiple comparisons of the post-test and delayed post-test sessions, results revealed statistically significant differences only in the focused experimental group. Qualitative data analyses were conducted to examine the differences among the three groups in terms of presentation accuracy, content, critical thinking, and assignment-specific

criteria. Overall, the focused WCF group demonstrated better performance than the unfocused WCF group in accurately addressing errors.

In conclusion, while Kang and Han's (2015) meta-analysis found no significant differences between focused and unfocused written corrective feedback, the aforementioned studies, though limited in number, support the superiority of focused WCF over unfocused WCF. On the other hand, due to the scarcity of studies comparing the effectiveness of focused versus unfocused WCF, further research is needed to accumulate more robust evidence in this area. Additionally, until recently, the impact of focused WCF had received limited attention, but more recent studies have shown that focused WCF enhances learning.

Building upon the findings of the conducted research and considering the focused nature of the written corrective feedback in this study, it was observed that the participants who receive focused WCF may not demonstrate equal improvements across all types of errors. Previous research has examined that student achievement and progress rates is partly dependent on the specific error types. For this reason, studies on error correction (Ferris et al., 2000; Ferris & Helt, 2000; Lalande, 1982; Sheppard, 1992) suggest that because each L2 structure has a different characteristic and is acquired through different processes, they should be studied, and perhaps corrected, separately. Next section describes two more types of corrective feedback in relation to the provider of the feedback, namely self vs peer correction.

3.4.3 Self vs Peer Correction

As the 21st Century classrooms increasingly transition from teacher-centered approaches to a student-centered approach, the significance of peer and self-correction in L2 writing is steadily and sternly gaining attention as a research topic. Research suggests that learners may learn best

when they are actively involved in classroom activities (Vygotsky, 1978; Prince, 2004: Saunders, 2020). In this regard, peer and self-correction can have an impact of L2 acquisition and complement each other.

Compared to the conventional teacher-provided method, peer and self-correction offer viable alternatives. Both approaches can be implemented within the classroom setting and promote learner autonomy as well as collaborative learning as they do not rely on teacher involvement (Chaudron, 1984; Tsui & Ng, 2000). Peer correction stands out by facilitating interaction, through oral exchanges. Learners can benefit from each other's input in peer correction but not in self-correction. On the other hand, self- correction is equally valuable as it promotes autonomy and independent learning. If students are able to correct their own errors and the errors of others accurately, this supports the claim that learners can benefit from each other's input (Berg, 1999; Bitchener et. Al, 2005; Cahyono & Amrina, 2017).

Studies indicate that peer interaction plays a significant role in enhancing a writer's awareness of their strengths and weaknesses (Tsui & Ng, 2000). When learners seek clarification from their peers, it draws their attention to discrepancies between their existing knowledge and their actual language proficiency (Gass, 2003). Studies have shown that peer feedback is as effective as feedback from the educator and/or self-feedback (Lam, 2013; Suzuki, 2008). Other studies indicate that L2 students do incorporate peer comments into their revised texts (Hu & Lam, 2010; Rollinson, 2005) and that peer feedback pushes for improvements to revised texts in the L2 (Diab, 2011; Hu & Lam, 2010; Paulus, 1999). Additionally, it has been proposed that when novice learners work in pairs, they can assist each other in their writing and acquire knowledge from one another (De Guerrero & Villamil, 2000; Teo, 2006). When peers collaborate to correct each other's errors, they fill gaps in each other's knowledge and bridge linguistic differences. This collaborative

process occurs within the Zone of Proximal Development, a cognitive space where learners, with the assistance of others, develop their abilities and become independent problem solvers or self-regulators (Vygotsky, 1978). Piaget (1959), also highlight collaboration and peer interaction as catalysts for adjusting cognitive frameworks when learners encounter cognitive conflicts. However, it is important to note that learners do not always accept the knowledge offered by peers unquestionably. In addition, research results have not consistently supported this positive outlook. For instance, Mendonça & Johnson, (1994) found that writers inconsistently incorporate their peer's comments during the revision process, often preferring to include a peer's suggestion after engaging in collaborative discussions rather than accepting it without any interaction. Other examples are Nelson and Carson (1998) as well as Tsui and Ng (2000) who discovered that students placed less trust in peer comments compared to feedback from teachers. Furthermore, Zhang (1985) found feedback provided by the educator to be more effective in enhancing grammatical errors compared to peer or self-feedback.

On the other hand, limited research was initially conducted regarding self-correction and its effectiveness in enhancing a text from one draft to another. It is important to note that the presence of teacher feedback does not always guarantee greater improvement either. Makino (1993) found that while learners who received more error cues from the teacher showed increased accuracy in morphology, learners who were given the chance to self-correct and who received no feedback at all were still able to independently identify and correct errors in their writing, achieving a similar level of improvement.

Later, Bitchener, Young, and Cameron (2005) argued that self-correction involves the teacher providing students with options that enable them to identify and correct errors on their own. According to these authors, whether it is self-correction or peer-correction, it is the teacher

who highlights the errors in a way that appears accurate, taking into account the students' level of linguistic and writing proficiency. Self-correction also has the advantage of directing students' conscious attention towards their own errors, prompting them not only to notice their mistakes but also to rectify them. Consequently, self-correction serves as a valuable means for students to become aware of their most frequent errors and identify problematic areas that require attention and resolution.

More recent studies such as research conducted by Hanrahan and Isaacs (2001), Kubota (2001), and Maftoon, Shirazi, and Daftarifard (2011) have demonstrated the positive effects of self-correction, including a decrease in the number of errors made by students. Furthermore, these studies have shown that self-correction outperforms teachers' correction and recasts, while also fostering a positive attitude toward error correction among learners and promoting meta-cognitive discussions in the classroom, which can lead to enhanced learning opportunities. Additionally, Fahimi and Rahimi (2015) discovered that self-assessment instruction equips students with the skills to plan, revise, and evaluate their writing progress. These findings provide compelling evidence for the implementation of self-correction practices, aiming not only to enhance students' writing abilities but also to develop their metacognitive skills.

Before moving to a review of relevant literature, it is important to first tackle the question as to how corrections possibly work in the mind of the learner, especially with respect to awareness, a clarification of the terminology must first be made. This is important because the term "awareness" is somewhat vague and is still a grey area only hypothesized by researchers. Awareness has been approached from different angles across the existing body of L2 research. Awareness has been labeled as discovery (Stern, 1992), inference (Carroll, 1981), conscious perception (Shaffer, 1989), consciousness raising (Rutherford, 1987; Smith, 1981), and input

enhancement (Smith, 1991). On the other hand, the very act of producing a written piece itself may allow the writer to bring aspects of speech, such as sentences, words, and phonemes, into consciousness (Olson, 1994).

There has been ongoing scholarly discussion regarding the relationship between one's level of awareness and their ability to process information. According to Truscott (1998) what is required is a conscious rather than a global awareness, whereby learners are actively engaged in the correction process and not simply exposed to it. A landmark study by Swain and Lapkin (1995) examined the early stages of writing and investigated whether learners' written output could generate conscious awareness of language issue. They also wanted to understand whether this awareness would lead to grammatical analysis. Through a think-aloud protocol involving 18 adolescent students, the study revealed that students indeed became aware of gaps in their linguistic knowledge while composing in a foreign language. Furthermore, they actively engaged in analytical thought processes, although these processes were occasionally flawed.

Certainly, similar limitations encountered in studying awareness have barred a direct link between these analytical thought processes and language acquisition. However, some researchers have made efforts to connect the noticing of language features that arise from written output to the language acquisition process (Ellis, 1995). It should be noted that being aware of a particular aspect of language does not guarantee its acquisition. Awareness is merely one step along the path to language acquisition (Truscott, 1998). On another note, awareness, which refers to the cognitive recognition of certain aspects, is different from the concept of noticing. The act of noticing goes beyond the mere awareness, as it encompasses the aspects that are consciously processed and further internalized as intake, thereby facilitating language acquisition (Schmidt, 1990). These theoretical assumptions provide support, although not definitive proof, for the value of peer

collaboration in language learning. Collaborative interactions have been suggested to enhance the quality of language-related noticing, which is considered a crucial step in the overall process of language acquisition (Swain & Lapkin, 2001). On the flip side, self-correction provides an opportunity for individuals to carefully examine their errors. The extended period during the process of writing, evaluating, and making revisions to one's own work (Cumming, 1990) may facilitate a heightened awareness of personal linguistic patterns, leading to more effective learning outcomes. Second language learners have reported gaining valuable insights from engaging in self-correction after receiving feedback from their teachers (Chandler, 2003). Similarly, Ashwell (2000) acknowledges the significance of analyzing one's own written output and recommends teaching self-correction techniques to empower students to provide self-feedback. There is much to be explored in the realm of second language research regarding the intricate cognitive processes involved in error correction. The concepts of awareness and noticing aim to shed light on how conscious and focused activities impact the unconscious process of L2 acquisition.

This brings us to delving into studies pertaining to the dynamics of peer and self-correction in various educational contexts. For example, Ganji (2009) conducted a study to examine the impact of Teacher-correction, Peer-correction, and Self-correction on the performance of Iranian advanced students on the IELTS writing test. The study included 54 participants selected from a pool of 75 IELTS candidates. The participants were divided into three groups of 18 students each. At the beginning of the term, all students took a writing pre-test, followed by an 8-week treatment period during which they received different types of feedback. The results of the analysis conducted on the post-test scores indicated a significant difference among the performance of the three groups. Further analysis revealed significant differences between the Teacher-correction and Self-correction groups, between the Teacher-correction and Peer-correction groups, and between

the Self-correction and Peer-correction groups. The findings of the study suggested that both Peer-correction and Self-correction were more effective than the traditional Teacher-correction method. Additionally, Peer-correction was identified as the most effective method of providing feedback to students. In summary, Ganji's study showed that Peer-correction and Self-correction techniques yielded better results compared to Teacher-correction in improving the writing performance of advanced Iranian students on the IELTS test. Among the three methods, Peer-correction was found to be the most beneficial.

In their study, Cahyono and Amrina (2017) investigated the effectiveness of peer feedback and self-correction on the writing ability of 71 EFL learners based on guideline sheets. The participants were taking an essay writing course at Universitas Negeri Malang in Indonesia. The students were from three classes, and each group was given a different type of treatment: the students from Class A were given peer feedback based on a guideline sheet, those from Class B were assigned to do self-correction based on a guideline sheet, and those from Class C were involved in a conventional editing process of writing. The results of the study showed that the students given peer feedback treatment had better scores in essay writing than those who were not given peer feedback (Group C). Similarly, the students who self-corrected had better scores in writing essays than those who did not conduct self-correction (Group C). Both peer feedback and self-correction groups significantly improved in writing essays. The results showed that both types of treatments were effective in increasing the learners' scores in essay writing.

Aghajani and Zoghipour (2018) conducted a study to compare the effects of online self-correction, peer correction, and teacher correction on the grammar knowledge of intermediate EFL learners in descriptive writing tasks. The study included 60 participants who were selected from a larger population of 92 intermediate EFL learners attending a language institute. The participants

were divided into three Telegram groups: a peer-correction group, a self-correction group, and a teacher-correction group, each consisting of 20 students. The research employed a quasi-experimental design with each group receiving a different type of treatment corresponding to online self-correction, peer correction, and teacher correction. To measure the participants' grammar knowledge, a pre-test was administered before the treatment. The participants were then taught grammatical concepts by the teacher over the course of an academic term. They were required to write short responses to prompts to apply their grammar knowledge and post them in their respective Telegram groups. The writings were corrected using self-correction, peer correction, and teacher correction methods, with feedback provided by the researcher. A post-test was conducted to assess the learners' progress after the application of the different correction methods. The results of the study indicated that the difference in grammar knowledge between self-correction and teacher correction was the most significant, followed by the difference between peer correction and teacher correction. However, no significant differences were observed between self-correction and peer correction.

Kim (2019) conducted a study comparing the revision performance of students when working in pairs versus individually. The study also investigated the effects of collaborative and individual revision of educator's indirect written corrective feedback on the development of accuracy in subsequent writing. The sample consisted of 36 English as a second language learners who completed four timed essays over an 8-week academic session. The teacher provided indirect WCF on the learners' essays, and the learners were asked to revise their writing either individually (self-correction group) or in pairs (pair-correction group). The learners' revision behavior was analyzed to check for accuracy of the corrected errors. The accuracy of the writing was assessed based on the number of error-free T-units and the total number of errors per 100 words. The

findings revealed that the pair-correction group achieved a higher rate of accuracy in correcting errors compared to the self-correction group. Both groups demonstrated significant improvement in the accuracy of their writing after receiving feedback during the 8-week session. However, there were no significant differences in the level of improvement between the self-correction and pair-correction groups.

Another related study was Dewi (2020), who also showed significant differences in the effects of self-correction and peer-correction techniques on students' writing competency, specifically in descriptive and recount texts. The research employed a quasi-experimental design with two groups consisting of a total of 60 students, selected from all eighth-grade students at PGRI Denpasar School using purposive sampling. The two groups were randomly assigned, with each group comprising 30 students. The study consisted of three phases: the preparation session (phase 1), the exploration session (phase 2), and the consolidation session (phase 3), resulting in a total of 12 sessions to assess the main effects and differences across text types. Performance Assessment was used as the data collection technique, implemented in every experimental session. The data collection process involved six steps, where learners wrote and corrected their errors using the designated correction techniques. The first group was treated with the peer-correction technique, while the second group used the self-correction technique. In each session, the students were assigned to write a short descriptive paragraph (phase 1) and a short recount paragraph (phase 4), with subsequent opportunities to practice and evaluate their writing using the respective correction techniques. After the learners' texts were corrected, they had the opportunity to revise their writing, and the revised texts were scored by two evaluators. The results indicated that the peer-correction technique had a more significant effect on learners' writing competency compared to the self-correction technique. Furthermore, the effects of peer-correction were more significant

than self-correction in both descriptive and recount texts. These findings suggest the importance of implementing peer-correction rather than self-correction when teaching English text types to junior high school students.

Another recent study by Coyle and Roca De Larios (2020) conducted with young Spanish learners explored how two groups of young learners processed written corrective feedback in an attempt to understand learner uptake. Specifically, the research involved eight pairs of young learners aged 9 to 11, chosen from diverse educational settings within the primary education domain, comprising an EFL class and a Content and Language Integrated Learning (CLIL) class. Through a multi-stage writing task using model texts, the participants were tasked with the composing of a narrative picture story, involving a sequence of drafting and then comparing drafts with feedback in the form of models. Then they were asked to rewrite their original texts. An intensive analysis was conducted on the collaborative dialogue protocols and written annotations of the children to unveil the cognitive strategies employed when confronted with disparities between the provided feedback in the form of model texts and their own written productions. Within the dataset, four distinct strategies were discerned as being employed by the participants. Nonetheless, differences emerged in both the scope and nature of these deployed strategies when comparing pairs from each instructional setting, as well as in their consequential impact on the incorporation of feedback into their written work. While all pairs demonstrated a tendency to primarily focus on the identification of surface-level differences between the model text and their original drafts, it was only the CLIL pairs who also paid attention to novel and alternative aspects present in the feedback. Furthermore, traces of uptake from feedback, stemming from instances of unreported noticing, were identified in the written compositions of the young participants. This study serves to deepen our comprehension of how young L2 learners engage with model texts, and

it underscores the significance of contextual variables when embarking on investigations pertaining to feedback mechanisms.

Moreover, a recent study by Demir (2021) investigated three error correction methods, namely self-editing, peer review, and teacher corrections. To achieve this, three student groups were created, aged between 21 and 25, who were students at the Department of Translation and Interpreting at the University of Siirt, Turkey. The sample was selected through the criterion sampling method. The student samples were composed of three groups, which are a group of self-editing (Group A), a group of peer review (Group B), and a group of teacher correction (Group C). No group was categorized as a comparison (control) or experimental group because the study considered all the groups as experimental groups. Out of total 78 students, 30 students were included in the study following a few examination questions. For data collection, a semi-structured questionnaire, a diagnostic essay, essays on prompts, and an editing template were used. The main instrument in this study was the essays composed based on writing prompts. Each student was asked to write ten essays in total: three persuasive, three descriptive, two literary, and two expository. The essay should not have less than 500 words or more than 550 words. Finally, an editing template designed for this research was delivered to all groups so that they could categorize and edit the errors to a certain rubric. The results yielded significant differences in terms of all methods concerning comparisons of pre- and post-tests. On the other hand, the test to determine inter-group differences found significant positive results for the method of teacher correction. Furthermore, the most frequent linguistic errors in students' writing were revealed. The experimental results showed that all groups lowered the number of language errors in their essay writing. Although statistical results provided a statistically significant difference between self and peer groups, the effect of self-editing seems to be more successful when the percentage of error

elimination is calculated. The self group achieved a 39% reduction in errors, while peer group experienced a 30% decrease. The preference for self-editing over peer-reviewing may be attributed to the diligent engagement of the self group participants in the editing and correction process, as they were editing their own texts. In essence, this subtle difference in effectiveness can be partially attributed to the level of attention invested. Therefore, the success of self-editing over peer-reviewing may be because self-editing requires attentive engagement in error correction procedure, hence more careful editing, just because the edited text was their own. In simpler terms, this slight variation in effectiveness can be partially attributed to the level of attention devoted to error correction.

Yanti et al., (2022) compared the impact of self-correction and peer correction techniques on the enhancement of writing skills among students at the Language Development Centre of a state Islamic university in Sumatera. The researchers collected data using a pre-test, post-test, writing assessment sheet, and guidance sheet for self and peer correction techniques. This quantitative research employed an experimental methodology. The sample consisted of 34 classes using a cluster random sampling technique. Three classes comprising 77 second-semester students were chosen. The findings revealed several key points. Firstly, there was a significant improvement in learners' writing skills after utilizing the self-correction technique. Secondly, there was a significant enhancement in learners' writing skills after employing the peer correction technique. Thirdly, there was a significant disparity in writing skills between students who were taught using the self-correction technique and those who were taught using the peer correction technique. Additionally, the results indicated that the peer correction technique had a more substantial effect size on the scores for learners' writing skills.

Another recent study by Plonsky, Criado, and Garcés-Manzanera (2022) investigated the effects of WCF and self-correction on the writing fluency of eighteen 10- to 11-year-old L2 English learners in a digital environment. Participants were divided into two groups: a feedback group (N = 10) that compared their texts with a model, and a self-correction group (N = 8) that engaged in self-editing before rewriting. Using both product/offline and process/online measures, the study assessed writing fluency through detailed analyses of texts and writing behaviors recorded by Inputlog 8.0. Contrary to Truscott's concerns, findings revealed that the feedback group improved across all fluency measures. Interestingly, the self-correction group demonstrated even higher fluency than the feedback group in seven of the ten measures, with effect sizes ranging from small to large. These results highlight the complex, multi-dimensional nature of writing fluency and suggest that self-correction may effectively support fluency development in young learners, challenging the notion that WCF inherently hinders writing flow.

To conclude, it can be said that although the presented studies report conflicting results with respect to the efficacy of peer vs self-correction on L2 writing accuracy and improvement, both peer and self-feedback programs can have the added benefit of students learning of an L2. In addition, the presented collection of studies highlights the importance of self and peer correction and the better outcomes they trigger compare to educator's WCF regardless of its type. Nonetheless, educators should make sure that learners understand what self and peer- corrections are. In the absence of proper training, students might struggle to provide valuable feedback or recognize its significance in their revision process. (Liu & Sadler, 2003; Ren & Hu, 2012). Furthermore, for peer and self-feedback to be effective, students require training on how to deliver effective feedback, and this necessitates the following discussion on learners' feedback literacy.

3.5 Studies on educational interventions that enhance feedback literacy

Feedback literacy can be defined as "the understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies" (Carless & Boud, 2018, p. 1316),) whereas teacher feedback literacy is described as "the knowledge, expertise and dispositions to design feedback processes in ways which enable student uptake of feedback and seed the development of student feedback literacy" (Carless & Winstone, 2019, p. 4). In essence, trained learners who are feedback literate cease to be mere passive receivers of feedback. Tactlessly, research in the field of feedback practices has predominantly been influenced by transmission models such as types of WCF provided by the educator, which depict students as passive recipients of feedback information (Winstone & Carless, 2019). These models frequently fail to meet learner's needs, encourage active involvement, or align with their emotional preferences (O'Donovan, 2017; Winstone et al., 2017).

Taking on a new direction, research in recent years has started to promote a 'new paradigm' of transmission of corrective feedback information to envision processes where learners actively take part, generate, make sense of, and use feedback information for improvement purposes (Carless, 2015; Winstone & Carless, 2019). These novel feedback practices are peer feedback (Nicol et al., 2014; Ibarra-Sáiz et al., 2020); digitally enabled feedback (Mahoney et al., 2019; Wood, 2022); and self-feedback processes (Butler & Winne, 1995; Nicol, 2021) that push feedback research toward the understanding of the social dimensions of feedback. The concept of feedback literacy plays a vital role in the emerging new paradigm of feedback practices. The initial concept of learner feedback literacy was proposed by Sutton (2012), who envisioned it as an essential component of the larger academic literacies that students must develop as they adapt to higher education (Lea & Street, 1998). Carless and Boud (2018) further developed this concept by

providing an expanded definition of student feedback literacy. They described it as encompassing the knowledge, skills, and attitudes that learners require in order to fully utilize and derive maximum benefits from feedback processes triggering an interest in feedback literacy and pushed for multiple published papers about feedback literacy. With the rapid growth of research on feedback literacy, it is judicious to examine its underlying assumptions and a critical analysis of how this dynamic concept has progressed and transformed over time.

Indeed, the topic of establishing feedback as a process rather than simply providing information has received significant attention in research. The traditional approach to feedback typically involves one-way communication, where the feedback provider shares their assessment or suggestions with the recipient. However, this approach has limitations in terms of engagement, understanding, and the recipient's ability to put the feedback into practice. Researchers have acknowledged the significance of transforming feedback into an interactive and collaborative process, where both the educator, as provider, and the learner, as recipient actively participate. This shift aims to promote a deeper comprehension of the feedback, encourage reflection and self-assessment, and enhance the recipient's effectiveness in utilizing the feedback. Although there have been some successful attempts to establish feedback as a process, the outcomes have been mixed. Implementing feedback as a process requires a comprehensive approach that takes into account various factors, such as the context, the relationship between the feedback provider and recipient, and the nature of the feedback itself.

On the flipside, establishing feedback as a process comes with its fair share of challenges. Firstly, creating a feedback culture can be difficult, as it involves shaping an environment where ongoing feedback is valued and encouraged. Organizations and educational institutions must work towards ensuring that feedback is seen as a constructive and beneficial tool, rather than something

to be feared or criticized. Secondly, effective feedback relies heavily on clear communication and interpretation between the feedback provider and recipient. However, misinterpretations, biases, and differing perspectives can hinder the feedback process and reduce its effectiveness. Thirdly, both feedback providers and recipients need to develop the necessary skills to engage in meaningful feedback conversations. Providers should learn how to deliver feedback in a constructive manner, focusing on helpful suggestions rather than personal criticism. On the other hand, recipients should develop the ability to receive and process feedback effectively, being open to learning and growth. Lastly, establishing feedback as a process requires dedicated time and resources. This can pose challenges, particularly in busy work environments or educational settings with limited resources. Finding the necessary time and allocating appropriate resources to implement and sustain a feedback process can be a hurdle to overcome. Addressing these challenges requires a comprehensive approach that tackles cultural aspects, communication dynamics, skill development, and resource allocation. By recognizing and actively working on these challenges, organizations and educational institutions can foster a culture of effective feedback that promotes growth and development.

In spite of the challenges involved, research has identified several strategies that can be employed to establish feedback as a dynamic process. One such strategy is providing feedback training to both feedback providers and recipients. This training enhances their understanding of the feedback process and equips them with the necessary skills to effectively give, receive, and act on feedback (Lefroy et al., 2015; Malecka, Carless & Boud, 2020). Another strategy involves establishing clear goals and expectations for feedback. This helps align the feedback process with desired outcomes, providing guidance to both providers and recipients in their interactions.

Incorporating ongoing feedback loops is also crucial. Instead of relying solely on periodic feedback sessions, continuous feedback loops allow for ongoing improvement and foster a culture of learning and growth. Encouraging recipients to engage in self-assessment and reflection on the feedback they receive is another effective strategy. This promotes a deeper understanding of the feedback and facilitates its integration into their practice. Furthermore, fostering a dialogue between the feedback provider and recipient is essential. By creating a two-way communication channel, active engagement, clarification of expectations, and mutual understanding can be achieved. By addressing the challenges mentioned earlier and implementing these strategies, researchers and practitioners can enhance the effectiveness of feedback processes and have a positive impact on individual and organizational development.

For example, Boud and Molloy, (2013) put together resources to look into students' experiences of feedback engagement whilst on clinical placements. Four students from medicine, nursing, and physiotherapy were interviewed and video recorded while describing their experiences of receiving feedback and the strategies used to maximize their placement feedback. The recordings were edited to emphasize the key principles of effective feedback including the importance of seeking feedback; asking for specifics; self-evaluation, reflecting on experience; building trusting relationships with supervisor; preparation for feedback episodes; identifying ways to improve; and actively engaging in feedback process. Furthermore, students shared their feelings about receiving feedback and suggested ways to make these experiences more common and accepted. They were also asked to think about their own encounters with feedback by answering a series of open-ended questions. The workshops, which focused on student-centered learning, aimed to enhance students' comprehension of effective feedback principles and procedures. The goal was to encourage active participation in feedback processes during their

placements and to incorporate the feedback into their practices. Feedback from students about the intervention was overwhelmingly positive, and this sentiment was echoed in all interviews. Overall, students expressed increased confidence in engaging with feedback during their placements.

Carless and Boud (2018) conducted a conceptual study to explore how students respond to feedback and identified potential barriers that hinder students' utilization of feedback. They proposed a framework consisting of four interconnected features that form the basis of learners' feedback literacy: understanding the value of feedback, making informed judgments, managing emotional responses, and taking appropriate action. The researchers illustrated the operationalization of this framework by utilizing two established learning activities, namely peer feedback and analysis of exemplars. They also discussed how these activities can be refocused and utilized to enhance learners' feedback literacy. The study highlighted the significant role of educators as facilitators in promoting learner feedback literacy through actions such as curriculum design, guiding learners, and providing coaching. The implications and conclusion of the study suggest that enabling activities should be integrated into the core curriculum to support the development of students' feedback literacy. Furthermore, learners should be provided with multiple opportunities to practice interpreting, documenting, reviewing, and acting upon feedback. Ultimately, the study emphasized that the development of feedback literacy empowers learners to critically assess their own work and enhance their learning.

Likewise, Winstone, Mathlin, and Nash (2019) devised a 'toolkit', Developing Engagement with Feedback Toolkit (DEFT), to enhance valuable feedback behaviors. This toolkit included resources such as a glossary or guide, workshop activities, and surveys. The study involved surveying student participants to gather information on their feedback utilization and

their perceptions of the usefulness of the DEFT resources. Students also engaged in focus group discussions about the provided resources. Students' responses were compared on a feedback literacy measure before and after participating in a DEFT feedback workshop. The participants had a positive perception of the DEFT resources. The researchers discovered that students perceived this intervention as beneficial for their feedback and learning experiences. Additionally, they observed a quantifiable increase in feedback literacy following the intervention.

Similarly, Noble et al. (2019) achieved comparable outcomes in the context of workplace learning. They designed an intervention to enhance students' feedback literacy in the workplace. Their intervention involved an e-learning module, feedback workshop, and reflective activities and aimed to augment students' feedback literacy and their engagement during and after their clinical placements at a teaching hospital. The intervention was conducted three times, involving 105 students, and its effectiveness was assessed through two surveys and one-on-one interviews with a subset of participants (n = 28). The students expressed high levels of satisfaction with their experiences during the intervention and reported an improved understanding of the different aspects of feedback processes, as well as their own role within them. As a result, participants demonstrated improved engagement, exhibited a deeper understanding and appreciation of feedback processes, and displayed an enhanced willingness to actively participate in feedback activities. Additionally, the students reported increased engagement in feedback processes throughout their placement, attributing these changes to a greater sense of confidence and empowerment to actively seek feedback for the purpose of enhancing their performance. These findings indicate that promoting on-the-job learning through student involvement in feedback should commence prior to placement, continue during the placement period, and be reinforced after the placement concludes.

Han and Xu conducted two additional studies in the same years (2019 and 2020) focusing on written corrective feedback. The first study analyzed the written corrective feedback given to two Chinese undergraduate students and investigated how the students' feedback literacy characteristics influenced their engagement with the feedback. The following year, the researchers conducted case studies involving three master's students to explore the dynamics of student feedback literacy in a higher education diagnostic writing class. They also examined the impact of teacher mediation during peer feedback activities on the students' feedback literacy. In both studies, the authors viewed student feedback literacy as encompassing cognitive and social-affective abilities, as well as the willingness to provide and utilize feedback.

More recently, Hoo, Deneen, and Boud (2021) conducted a study focusing on student feedback abilities within the context of an undergraduate course intervention that followed an evidence-based feedback literacy framework. They analyzed 237 student journals, in which students responded to self- and peer feedback, and identified various features of student feedback literacy. They also assessed the effectiveness of pedagogical approaches aimed at developing these necessary capabilities. The findings shed light on the presence, extent, and development of feedback capabilities throughout the course. Based on these findings, the study identified pedagogical approaches that effectively incorporate feedback opportunities and support the growth of feedback abilities in students.

Finally, Malecka, Boud, and Carless (2022) looked into the importance of purposefully embedding feedback tasks at opportune times in the curriculum. The researchers emphasized the importance of student feedback literacy in addressing issues in current feedback practices. In their conceptual paper, they expanded on three essential mechanisms for integrating feedback literacy into the curriculum: eliciting feedback, processing feedback, and implementing feedback. They

demonstrated these mechanisms through improved versions of four existing practices: feedback requests, self-assessment, peer review, and curated e-portfolios. The discussion section outlined the main practical implications and emphasized the necessity for additional empirical research to explore how students effectively elicit, process, and implement feedback.

Based on the above referenced studies, it can be concluded that learners who received training in feedback literacy exhibited improved perceptions of their future feedback abilities and displayed a more positive attitude towards the feedback process. This improvement was associated with a greater understanding of the purpose of feedback (Carless and Boud, 2018). Moreover, several studies found that feedback literacy training resulted in increased student confidence, which in turn increased the likelihood of students acting upon feedback in future endeavors (Hey-Cunningham, Ward, and Miller, 2021; Ma, Weng & Teng, 2021; Tai et al., 2022). This positive development may be attributed to feedback literacy or to encouraging students to be more self-aware regarding their role in the feedback process (Hoo, Deneen, and Boud, 2022). Overall, the majority of studies indicated that interventions aimed at fostering feedback literacy, improved student understanding and appreciation of their role in the feedback process, leading to increased student confidence and potential engagement in future feedback activities. The empirical research conducted on the development of interventions in this area demonstrates encouraging outcomes. This review presents evidence supporting the notion that engaging in feedback literacy interventions can facilitate the adoption of positive feedback behaviors, such as effectively managing perceptions and attitudes, improving comprehension of the student's role, and fostering increased confidence and agency in the feedback process.

On another vein, and although prioritizing the cultivating student feedback literacy is vital for enhancing feedback processes and ultimately improving overall student learning outcomes, we

still need to inquire about the influence WCF may have on accuracy in L2 writing. The following section will look into the impact of the discussed three types of WCF on L2 writing accuracy.

3.6 Studies on the impact of WCF on L2 accuracy

The goal for most second language learners is to attain native-like production of the target language. Hence, these learners have to improve three key aspects of language performance that researchers on foreign language learning have put forth. These constructs are captured by the notions of complexity, accuracy, and fluency (CAF) (Skehan 1998; Ellis 2003, 2008; Ellis and Barkhuizen 2016). Within the CAF framework, accuracy is considered the most transparent aspect (Housen & Kuiken, 2009; Pallotti, 2009; Wolfe-Quintero et al., 1998). It specifically refers to the extent to which L2 use aligns with the target-like-use of language, indicating error-free speech or writing.

Initially, foreign language pedagogy speculated which of the two, fluency versus accuracy, was more important in L2 usage. This gave way to research by Brumfit (1984) on such questions as to whether language accuracy that emphasizes linguistic form and grammatically correct language is more valuable than fluency. More than a decade later, Skehan (1989) proposed the complexity component which is the third element of the triad. A developing interest in the topic of these three scopes created a pool of research in the field. Moreover, literature decrees that these three dimensions gained working definitions in the 1990s. Complexity has since been described as "the extent to which the language produced in performing a task is elaborate and varied" (Ellis 2003, p. 340), accuracy has been characterized as the ability to produce error-free speech, and fluency has been defined as "the extent to which the language produced in performing a task manifest pausing, hesitation, or reformulation" (Ellis 2003, p. 342).

Writing is considered as one of the most central skills for academic success, and for this reason, a noticeable number of researchers have explored designs to improve L2 writing. Not only that, but also an immense number of studies have looked into the impact of types of written corrective feedback on L2 writing accuracy. Many second and foreign language instructors are still uncertain about the practical methods they should employ to assist students in enhancing their writing skills. Furthermore, some educators have expressed doubts regarding the effectiveness of conventional approaches to teaching second language (L2) writing and grammar, questioning their ability to effectively enhance students' linguistic accuracy.

A good number of studies have investigated whether revision leads to increased accuracy in new pieces of writing. It is worth mentioning that by revision, we mean attempted self-correction. As for peer-feedback, some early studies in L2 research (e.g., Villamil & De Guerrero, 1996, 1998; Nelson & Carson, 1998; Paulus, 1999; Zhu, 2001; Liu & Sadler, 2003; Min, 2006; Suzuki, 2008) investigated different aspects of the role of peer feedback in enhancing accuracy in L2 writing. Although the findings from these studies have been inconsistent, providing a mix of results regarding the effectiveness of peer feedback in improving L2 learners' writing accuracy, recent studies have presented supporting evidence for the impact of peer feedback.

Chandler (2003) investigated the effect of direct WCF plus revision using data from an experimental and a control group. His aim was to show that learners' grammar correction leads to error reduction in subsequent writing over one semester without affecting fluency or quality. One group revised immediately after correction while another group revised weeks after receiving the feedback. Additionally, a second study looked into the manner in which error correction should be done: teacher correction vs student self-correction. The study also aimed to understand whether the teacher should indicate location or type of error or both. The instruments measured change in

the accuracy of both revisions and of subsequent writing, change in fluency, student attitudes toward the four different kinds of teacher feedback, and time required by student and teacher for each kind of response. Findings indicate that the learners who revised after each piece of writing improved in accuracy from the first to the fifth assignment, but there was no improvement in the other group. Direct WCF and simple underlining (indirect WCF) of errors are significantly superior to describing the type of error (coding) when attempting to reduce long-term errors. Direct WCF is best for making accurate revisions, and students seem to prefer it because it is the fastest and easiest way for them. However, students feel that they learn much more from self-correction when presented with indirect WCF like simple underlining of errors.

Truscott and Hsu (2008) conducted a later study to examine the effects of feedback provision on revision accuracy and writing skill accuracy. The study involved 47 EFL students in a public university in Taiwan. One group received underlined errors as guidance for their revisions, while the other group did not receive any feedback. The results indicated significant differences in favor of the feedback group, suggesting that receiving feedback was beneficial for students' revision accuracy. However, when both groups were given a new writing task one week later, their error rates were nearly identical. Therefore, the overall conclusion of the study was that feedback is effective in assisting students with rewriting their work but does not demonstrate long-term improvement in writing accuracy (after one week of learning). These findings support the results of Chandler' (2003) study regarding the positive impact of feedback on revision accuracy. Similarly, Ferris (2012) also supports the initial findings of the study, stating that written corrective feedback aids students in revising and editing their texts more successfully, which are crucial skills for student writers to develop.

In another study that looked into accuracy, Hartshorn et al. (2010) examined the effects of what they call "dynamic corrective feedback" (p. 87), an instructional strategy developed by the researchers to improve learners' accuracy based on insights garnered from practice, research, and theory. They also aimed to test the efficacy of the methodological processes. The study compared the performance of two groups of students, one using a conventional approach to writing instruction and the other using the dynamic WCF approach. This involved a feedback cycle where learners were required to repeatedly revise the same text following indirect WCF until their writing was error free. The participants were 47 advanced-low to advanced-mid ESL students who were studying at Brigham Young University's English Language Center in the United States. The treatment group consisted of 28 students, and the control group included 19 students ranging from ages 18 to 45 years. Five experienced teachers taught the students. During the course, students in the experimental group engaged in regular 10-minute writing exercises, covering various topics such as opinions, social issues, science, history, and popular culture. They were instructed to maintain an error log, noting down the types of mistakes they made. Additionally, they received indirect feedback in the form of coded symbols and were encouraged to revise their compositions until all errors were addressed. As a result of this approach, there was a notable enhancement in writing accuracy when compared to learners who wrote multiple drafts without receiving any written corrective feedback. While other aspects like rhetorical competence, writing fluency, and complexity were largely unaffected, the experimental group demonstrated significant improvements in terms of writing accuracy, as indicated by test results.

In a similar study conducted by Frear (2012) in a Taiwanese college setting, the effectiveness of different approaches to writing instruction and WCF were examined. The study employed a quasi-experimental design, consisting of a pre-test, treatment phase, immediate post-

test, and delayed post-test. Two grammatical structures, regular and irregular past tense, were the focus of analysis for gains in accuracy. The treatment groups were divided into two categories: one group received focused indirect WCF, while the other received unfocused indirect WCF. A control group did not receive any WCF. The participants completed three writing tasks for the tests. The results revealed striking similarities in the findings concerning weak verb accuracy and total accuracy. Parametric tests indicated that both the focused and unfocused indirect WCF groups outperformed the control group not only in the immediate post-test but also in the delayed post-test. Merely asking students to revise their writing without the assistance of WCF had no impact on the accuracy of either grammatical structure. Among the groups that received WCF, learners who received direct WCF and subsequently revised their writing demonstrated improved accuracy in one of the structures (regular past tense), but not in the other (irregular past tense). A similar comparison to Frear's research was conducted by Van Beuningen et al. (2012)with the addition of a group that solely engaged in writing practice without revision or written corrective feedback (WCF). The findings indicated that the combination of direct WCF and revision yielded higher levels of short-term and long-term grammatical accuracy compared to both the group that solely engaged in writing practice and the group that had the opportunity to revise their writing during the practice.

In their 2014 empirical investigation, Coyle and Roca de Larios examined the influence of two distinct types of feedback, specifically error correction and model texts, on reported noticing and written output of young EFL learners. This research was conducted with students between the ages of 10 and 12 enrolled in two EFL classes situated in a primary school in the southeast region of Spain. These learners had been engaged in English language instruction for a period ranging from four to five years, involving approximately three hours per week. The participants were

grouped into proficiency-matched pairs, totaling 23 pairs, comprising 26 male and 20 female students, and were subsequently tasked with collaborative writing activities. The study entailed three distinct phases, each being implemented within 50-minute lesson sessions. These phases encompassed (a) the spontaneous recognition of linguistic challenges during the process of composition, (b) the evaluation of their written work in light of the provided feedback, and (c) the subsequent revision of their original written output. The teacher trained the children for the joint story-writing task, and then asked them to write a text collaboratively in pairs. The data for this study was collected over a four-week period. In the first phase, each pair was given a simple four-frame picture story prompt and instructed to collaboratively craft their narrative, documenting any linguistic obstacles encountered in the writing process. One week later, in the second phase, half of the pairs received their stories back with direct corrective feedback from the teacher, while the remaining pairs were provided with two model texts of the same story. The third and final phase occurred one week subsequent to the second phase, wherein the pairs were presented with the same picture prompt and tasked with rewriting their story. The outcomes of the investigation disclosed that explicit knowledge transmitted through written feedback can have a positive effect in enhancing writing accuracy. Furthermore, the findings indicated that, although the young learners primarily identified and integrated lexical elements into their written work, improvements in the linguistic soundness and comprehensibility of their revised texts exhibited an advantage for error correction approach over the use of model texts. Participants in the error correction condition exhibited a greater inclination to notice grammatical issues during the comparison stage, which subsequently manifested in their revisions.

Moreover, in a very relevant study, Farjadnasab and Khodashenas (2017) aimed to investigate the long-term effects of two types of corrective feedback on the writings of 79 Iranian

EFL learners. The participants were divided into four groups: group 1 received direct corrective feedback, where the teacher corrected the errors in their papers; group 2 received indirect feedback, where the teacher indicated and located the errors and students were required to revise their papers accordingly; group 3 also received indirect feedback, but students were given back their papers without being required to revise them; and group 4 served as the control group and did not receive any feedback. The study spanned a duration of two months, allowing for an examination of the impact of the different types of corrective feedback over time. The aim was to analyze the effectiveness of direct and indirect feedback on improving the accuracy of the learners' writings. During the initial two weeks of the course, the students in the experimental groups received the designated treatment. The study followed a pre-test, immediate post-test, and delayed post-test design. Furthermore, the study aimed to determine if there were variations in the effects on accuracy when students were required to revise their writings based on the feedback provided. To ensure a focused investigation and consider the proficiency level of the learners, as well as the complexity of the expected writing tasks, three specific linguistic errors were chosen as the target structures: capitalization errors, the correct use of definite and indefinite articles, and simple present tense verbs. These specific errors were identified based on their prevalence in the participants' initial writing tasks. The analysis of the data demonstrated that the provision of WCF had a beneficial effect on the accuracy of the students' written work. The various types of feedback used in the treatment groups resulted in noticeable enhancements in writing accuracy, albeit to different extents. Specifically, direct feedback exerted a more significant immediate influence on the accuracy of the writing. On the other hand, different types of feedback were observed to contribute more prominently to long-term improvement and learning over the course of time.

Rouhi et al. (2020) compared the differential effects of giving and receiving unfocused direct feedback on improving Iranian EFL learners' writing accuracy. A total of 61 English learners participated in the study and were randomly assigned to three groups: a feedback giver group (n = 19), a feedback receiver group (n = 22), and a control group (n = 20). The participants underwent the Cambridge English Preliminary Test, engaged in four translation tasks as the treatment, and completed two tests, namely a translation test and a picture description test. The analysis of the collected data indicated the effectiveness of peer-provided feedback. Furthermore, upon further analysis, it was revealed that the participants in the feedback giver group performed better in the translation and picture description tests compared to the participants in the feedback receiver group and the control group. These findings highlight the positive impact of giving feedback on the learners themselves as well as the potential significance in pedagogical practices.

In addition to the aforementioned study, in their recent research study, Manchón, Conesa, & Cerezo (2020) explored two primary inquiries. First, they examined whether the levels of Depth of Processing (DoP) were influenced by the conditions under which writing occurred, specifically comparing individual and collaborative writing settings. Second, they investigated the connection between DoP and the accuracy of written texts both before and after the incorporation of feedback. The study involved 118 intermediate English as a Foreign Language (EFL) learners in Spain, who were tasked with completing a picture-based problem-solving exercise under two conditions—individual and collaborative writing—both with and without access to feedback. The findings suggest that the pivotal factor influencing both DoP and enhancements in overall accuracy was the availability of feedback, rather than the specific conditions of writing.

In a very recent meta-analysis conducted by Kang (2022), short-term and long-term impacts of written corrective feedback on improving grammatical accuracy in second language

learners were compared. The analysis incorporated data from 25 primary studies that investigated both the immediate and delayed effects of WCF. The findings of the study revealed that WCF had a positive influence on L2 grammatical accuracy compared to the absence of WCF. The overall effect size of WCF was moderate (g = 0.62) on immediate post-tests, while it fell within the small-to-moderate range (g = 0.46) on delayed post-tests. The analysis also considered moderator variables, which exhibited similar patterns across both test time points. Specifically, the genre of writing tasks and the types of feedback provided were significant factors influencing performance on both immediate and delayed post-tests. From a pedagogic perspective, more research is needed into the complex interrelationship between communicative WCF adequacy and type and improvement in L2 accuracy in writing, particularly, in settings where L2 writing instruction involves individual (self-correction) and pair work (peer-correction).

Before we conclude this section, it is of utmost importance that we talk about how the measurement of second language accuracy in writing can be approached. One method involves analyzing the number of errors in relation to production units such as words, clauses, or T-units. Several studies have adopted this approach to examine L2 writing accuracy (Bardovi-Harlig & Bofman, 1989; Homburg, 1984; Kuiken & Vedder, 2008).

An alternative method centers on the examination of errors within particular structural components, such as clauses, sentences, or T-units, considering their presence or absence. Researchers have explored the error-free nature of these structural units to assess L2 writing accuracy (Tedick, 1990). Additionally, some research studies concentrate on particular error categories, such as collocations (Barfield, 2007; Laufer & Waldman, 2011) or other error categories such as, on word choice and word form, spelling, tenses, use of articles and determiners, and agreement between subject and verb (Chan, 2010; Dipolog-Ubanan, 2016) in L2 writing.

Foster and Wigglesworth (2016) proposed a method to measure accuracy in L2 production by assigning weighted scores to clauses based on their level of accuracy. This approach involves assigning a score of 1.0 to accurate clauses and a score of 0.5 to partially accurate clauses, resulting in an overall weighted accuracy score for the total performance. However, accurately weighting errors can be challenging (Pallotti, 2009), and as Foster and Wigglesworth (2016) acknowledge, some degree of personal judgment is often necessary when assessing accuracy in L2 data. Accuracy has also been assessed using holistic scales (e.g., Polio, 1997) or the number of errors per 100 words, as well as specific measures tailored to the research context (Kim, 2019).

The selection of a specific measure to assess accuracy in L2 writing depends on the specific linguistic feature under investigation. For instance, when examining the impact of a teaching unit on the past tense, the focus would be on measuring the extent to which learners demonstrate target-like use of the past morpheme *-ed* or the use of irregular forms. Similarly, when exploring language produced in a task that emphasizes plural vs. singular morphemes, the measure could involve counting the number of correct plural morphemes and irregular plural forms. Each measure has its own advantages and limitations. Holistic scales provide a comprehensive overview by considering the severity of errors, but they may not clearly distinguish accuracy from other dimensions such as complexity (Polio, 1997). Global measures enable comparisons across different languages, populations, and tasks, but they may lack sensitivity to detect subtle changes in accuracy, especially in cases of higher proficiency levels or short-term interventions (Lambert & Kormos, 2014). On the other hand, specific measures can capture small changes in accuracy, although generalizing the findings to other contexts might be challenging. Categorizing errors based on L2 structure type or severity allows for comparisons between studies, but it necessitates making subjective decisions when defining categories and assigning errors to specific degrees.

By now, it is evident that the selection of accuracy measures requires careful consideration. Likewise, the interpretation of results necessitates caution and an understanding of the strengths and limitations of the chosen metrics (Norris & Ortega, 2009). The choice of a metric should primarily be based on the characteristics of the L2 data being investigated. For instance, raw frequencies (e.g., total number of errors) can only be compared among L2 samples that are of equal length (e.g., texts consisting of exactly 100 words). When samples differ in length, ratios or indices should be employed. It is advisable to include some of the same measures used as benchmarks in previous research to facilitate comparisons across studies. However, these measures should be supplemented with metrics specifically chosen for the current study, taking into account the nature of the data and the research questions at hand.

In conclusion, although the effectiveness of providing written feedback on specific forms in writing remains a matter of debate, the empirical research presented suggests that it can lead to improved grammatical accuracy in subsequent written works. A good number of studies (e.g., Fathman & Whalley, 1990; Ferris & Roberts, 2001) have shown that WCF enables learners to correct their errors when they rewrite their original text especially when learners are guided by information provided by the WCF to identify and correct their errors. On the other hand, a lot of the research in this domain is inconclusive. This can be due to the fact that improvement in accuracy and error reduction may be directly related to the type of L2 structure under study, which brings us to our next discussion about which errors are treatable and which ones need more than just WCF provisions to ensure acquisition.

3.7 Studies on WCF and treatable and untreatable L2 errors

The research studies which have targeted direct vs indirect and focused vs unfocused WCF for L2 error categories confirm that student uptake from WCF mostly depends on the type of error. Scholars such as Ferris (1999) and Truscott (1996) have argued that not all linguistic errors can be expected to respond equally well to the same type of corrective feedback (CF). This is due to the fact that morphological, syntactic, and lexical errors reflect gaps in distinct areas of linguistic knowledge (Schwartz, 1993). Although several theories have been suggested about how different types of errors respond to corrective feedback, determining which errors warrant correction is still an empirical issue that calls for additional research. At this point, we refer back to what Ferris (1999) referred to as "treatable" and "untreatable" errors in L2, suggesting that rule-governed structures such as verb tense, subject-verb agreement, article usage, plural and possessive noun endings, and sentence fragments are treatable errors. On the other hand, prepositions are not rule-governed and need extensive practice for acquisition.

Several studies have examined the impact of corrective feedback on various error categories, consistently finding that improvements vary depending on the type of error (e.g. Bitchener, Young, & Cameron, 2005; Ferris, 2006; Ferris & Roberts, 2001; Frantzen, 1995; Lalande, 1982; Sheppard, 1992). Several studies (such as Bitchener & Knoch, 2010; Sheen, 2007) have examined English articles, but they have not specifically examined the impact of written corrective feedback on indefinite and definite articles separately. However, it is evident that these structures differ in terms of their difficulty in learning (Huebner, 1983; Young, 1996). In fact, second language acquisition research provides ample evidence that grammatical structures vary in their learnability and are acquired at different stages of development (Pienemann, 1998). Therefore, it is crucial to conduct

detailed studies that focus on the effect of feedback on different grammatical structures. The relative difficulty of different grammatical structures may potentially influence the extent to which they can be improved through feedback. For example, Frear's (2012) study provides evidence to support this hypothesis as results indicated that focused direct WCF led to improvement in new pieces of writing in the case of regular past tense but not for irregular past tense, which is not rule-driven.

For instance, Lalande (1982) identified 12 types of errors and noted that correction only led to a notable decrease in orthographical errors. Another study conducted by Bitchener et al. (2005) explored the influence of CF on learners' accuracy development regarding three target structures. They found that CF had a more pronounced impact on the accuracy of the past simple tense and articles compared to the correct usage of prepositions.

In a study conducted by Ferris et al. (2000), it was found that L2 learners made significant progress in reducing correctable errors, like verb tense, over a three-month period. However, their study showed only minimal improvement in reducing errors that cannot be easily corrected, such as article errors. On the other hand, in a separate experimental classroom study by Ferris and Roberts (2001) 72 university ESL students received various types of feedback. They examined the self-editing capabilities of the students under three different feedback conditions: (1) errors marked with codes representing five error categories, (2) errors underlined without any additional marking or labeling, and (3) no feedback provided. Their findings indicated that both groups receiving feedback showed significantly better performance compared to the group without feedback when it came to self-editing. However, there were no notable differences between the groups that received feedback with error codes and the groups without such codes. Based on these results, the researchers suggested that providing less explicit feedback appeared to be equally effective as providing error-specific corrections in facilitating self-editing for these students. These varied findings from

multiple studies emphasize the need for further research in different settings and under diverse conditions.

Bitchener, Young, and Cameron (2005) also suggest that WCF is more likely to be effective with "treatable" structures. They investigate the effect of different kinds of feedback on three structures (i.e., past tense, definite article, and prepositions). Their study aimed to examine whether different types of feedback (direct, explicit written feedback combined with student-researcher individual conferences; direct, explicit written feedback only; no corrective feedback) provided to 53 adult migrant students would lead to improved accuracy in new written pieces over a 12-week period. Their study focused on three types of errors: prepositions, past simple tense, and the definite article. The findings revealed a significant positive effect of the combination of written and individual conferences to provide feedback on the accuracy of using the past simple tense and the definite article in new written pieces. However, there was no overall effect observed for accuracy improvement across the feedback types when considering all three error categories as a single group. Notably, significant variations in accuracy were observed across the four written pieces, which aligns with previous findings, suggesting that L2 learners may demonstrate accuracy in using new linguistic forms on one occasion but struggle with similar instances in other contexts. The findings of this study, which reports gains in accuracy for past tense and definite article, both of which can be considered patterned and rule-governed, but not for prepositions, which is a much more idiosyncratic grammatical feature, further enhance the variety in research findings. This discrepancy suggests that for untreatable errors, indirect feedback, which withheld the correct forms, prompted learners to engage in deeper processing of the errors. Consequently, the relationship between error type and feedback is more complex than previously assumed, requiring further empirical investigation.

As mentioned above, according to Ferris (1999), indirect feedback, also known as metalinguistic feedback, is more effective for errors that can be easily corrected due to the presence of clear rules to follow. On the other hand, direct correction is believed to be more beneficial for errors that are difficult to treat or correct. However, Van Beuningen et al. (2012) conducted a study that presented contrasting results. They found that metalinguistic feedback in the form of error codes was more successful in addressing untreatable errors as referred to as "nongrammatical" errors in their study, while direct correction showed superior effects for treatable errors or grammatical errors. This study aimed to examine the impact of direct and indirect comprehensive corrective feedback on the written accuracy of 268 second language learners. The study sought to assess the effectiveness of WCF as a tool for revising written work and its potential to facilitate long-term accuracy development. Additionally, the study aimed to test Truscott's assertions (e.g., 2001, 2007) that WCF may be beneficial for non-grammatical errors but does not help improve grammatical errors, that learners may avoid using more complex constructions due to error correction, and that time spent on CF may be better allocated to additional writing practice. The results indicated that both direct and indirect WCF resulted in improved accuracy compared to a control group that engaged in self-editing without WCF, and another control group that solely focused on writing practice without WCF. These improvements were evident not only during the revision process but also in subsequent writing pieces produced during post-test and delayed post-test sessions conducted 1 and 4 weeks after WCF was provided. Moreover, a separate analysis of grammatical and non-grammatical error types revealed that only direct WCF led to gains in grammatical accuracy in new writing, while indirect WCF was more beneficial for improving non-grammatical accuracy.

Shintani, Ellis, and Suzuki (2014) argued that the distinction between treatable and untreatable errors lacks a clear theoretical foundation, making it problematic for several reasons. Firstly, rule-governed aspects can exhibit significant variation in their complexity. For instance, the rule governing the use of the indefinite article for initial reference may be regarded as relatively straightforward, whereas the rule governing the hypothetical conditional is more challenging due to its involvement of intricate verb forms and semantic complexities.

The above-mentioned study by Shintani, Ellis, and Suzuki (2014) aimed to compare the impact of two types of form-focused written feedback, namely direct corrective feedback and metalinguistic explanation, on the accuracy of the indefinite article and the hypothetical conditional, among Japanese university students. Both types of feedback were provided to the entire class, with and without the opportunity for rewriting. Accuracy of use of these structures was measured in new pieces of writing. The results showed that the feedback resulted in increased accuracy for the hypothetical conditional, but not for the indefinite article. Additionally, the effectiveness of direct WCF was found to be more long-lasting. Moreover, providing an opportunity for revision enhanced the impact of the WCF. Overall, direct WCF followed by revision emerged as the most effective type of feedback. The findings suggest that when form-focused WCF is directed at two features that differ in saliency and complexity, learners tend to focus more on the structure that contributes significantly to the overall meaning of the text.

More recently, Suzuki et al. (2019) conducted a study to examine how the explicitness of written corrective feedback and the type of target structure interacted to affect students' accuracy in revision and new writing. The study involved 88 Japanese university students learning English, who were divided into four groups. Each group received either direct corrective feedback with metalinguistic explanation, direct corrective feedback only, indirect corrective feedback with

metalinguistic explanation, or indirect corrective feedback only. The target structures were the English indefinite article and the past perfect tense. The results showed that both types of WCF helped students improve the accuracy of the target structures during the revision process. However, a significant improvement from the initial writing to the new writing was only observed for the past perfect tense. Regarding the explicitness of WCF, it had a partially significant effect on learner revision for the past perfect tense, but it did not have an impact on new writing regardless of the type of target structure.

The studies presented highlight the necessity for further research focusing on the effects of written corrective feedback on various structures that differ not only in terms of their rule-based nature but also their complexity. By conducting more in-depth investigations, it may be possible to gain a more comprehensive understanding of what defines a treatable error, and what is the correlation between corrective feedback type and error reduction. To conclude, it is also worthwhile to inquire about learner preferences with respect to types of WCF, and which may equally have a relative impact on perceived error reduction and perceived acquisition of L2 structures. The following section will venture into learner perception of written corrective feedback to bring the discussion into full circle.

3.8 Learner perceptions of WCF

Dealing with errors made by language learners is a crucial aspect of teaching second or foreign languages. Many language instructors find that correcting errors and providing feedback on students' written assignments are highly time-consuming, especially since the effectiveness of providing written corrective feedback to improve the accuracy of L2/FL writing is still a subject of debate. Conversely, learners' perspectives on WCF are important, as highlighted by Hyland and

Hyland (2006), who put forth that personal beliefs held by learners influence their reception of written feedback in the language classroom. Nevertheless, most research studies have concentrated on evaluating the effectiveness of different types of written corrective feedback on writing accuracy while disregarding learners' perceptions of the feedback provided by teachers. It was only in the 1990s that research studies investigating learners' perceptions and reactions to written feedback (e.g., Ferris, 1995; Hedgecock & Lefkowitz, 1996; Leki, 1991) began to emerge, shifting the focus to how learners generally perceive WCF. These studies mostly examined learners' preferences for written feedback and rarely connected their perceptions and reactions to teacher feedback in specific learning contexts (Lee, 2008).

According to Lee (2008), it is highly important to provide teachers with student feedback on their own feedback practices as a way to support their reflective and effective feedback strategies. Pittaway (2004) asserts that if learners do not feel engaged in the feedback process due to inadequate or unclear comments from teachers, they may not pay attention to the feedback provided. Therefore, it is crucial for teachers to understand what their learners expect to gain and contribute to the process of learning the second language (L2). Furthermore, the way in which ESL learners perceive and respond to teacher feedback can vary significantly among individuals, and if teachers fail to thoroughly consider these individual differences, it can impede language learning (Mantle-Bromley, 1995). Each learner may have their own unique perceptions and reactions to feedback, highlighting the need for teachers to carefully examine and understand these differences.

On another note, L2 researchers and educators frequently express their concerns about language learners' limited appreciation for teacher feedback comments, which often confuse them and disrupt their thought process. L2 learners consistently seek clear and directive feedback that can guide them towards improving their writing skills. Mantle-Bromley (1995) argues that certain

attitudes, beliefs, and expectations that L2 learners bring into the classroom can be detrimental to their success in language learning. If the attitudes derived from their first language are not addressed in the L2 classroom—for instance, engaging in argumentation over teacher feedback, seeking clarification, or requesting the teacher to explain a written comment—this can have a negative impact on language learning as a whole. For example, some L2 learners, such as Arabic learners, may feel apprehensive about challenging their teacher's viewpoint, fearing that it could result in a deduction of marks (Amara, 2015).

Numerous studies examine how both students and teachers perceive the effectiveness of WCF (Montgomery & Baker 2007; Diab 2005; Lee 2008; Brown 2009; Amrhein & Nassaji 2010; Karim & Nassaji 2015; and Simard et al. 2015). Learner perception plays a crucial role in understanding the impact of WCF because learners may interpret instructional techniques differently from what teachers expect, leading to a mismatch that hampers learning effectiveness (Amrhein and Nassaji 2010). Previous studies have shown that learners have favorable attitudes towards WCF, providing valuable insights for best instructional practices and supporting the ongoing academic debates on its value (Saito 1994; Schulz 2001; Ferris 2012;) although preferences on the type of WCF vary. Studies such as those conducted by Brown (2009), Diab (2005), and Montgomery and Baker (2007) have discovered that students possess their own preferences and opinions regarding specific types of WCF. Some studies, including Ferris (1995), Lee (2005), Radecki and Swales (1988), and Schulz (2001), have found that students lean towards a grammar-based direct approach, where a significant emphasis is placed on accuracy-oriented WCF. Conversely, other studies by Amrhein and Nassaji (2010), Ashwell (2000), and Lee (2008) demonstrated that students tend to prefer content-based correction, focusing on both content and grammatical errors.

To look into learners' perceptions of direct vs indirect WCF, Leki (1991) conducted a study that demonstrated students' preference for indirect feedback over direct feedback. Indirect feedback allows students to receive corrections not only on their grammar. The study asked students what kinds of WCF types help them the most to improve their writing, which kinds of corrections they even read, which corrections they feel they retain best, and what reactions they have to positive and negative comments on both the form and the content of their writing. A group of 100 ESL students in freshman composition classes responded to the survey. The results of this study suggested that these students associated good writing in English with error-free writing and, therefore, they wanted and expected their composition teachers to give direct and unfocused feedback by correcting all errors in their written work.

Likewise, Nassaji and Liu (2016) conducted a study to examine how different educational settings could influence learners' perceptions and preferences regarding written corrective feedback. This exploratory study investigated learners' perceptions and preferences of WCF in an EFL setting. The researchers collected both quantitative and qualitative data from 64 English learners at intermediate, advanced-intermediate, and advanced proficiency levels in a prominent provincial university in Mainland China. Through comprehensive written questionnaires, the study explored participants' perceptions and preferences across various dimensions of WCF. Results indicated that while the participants expressed a neutral opinion on the role of explicit grammar instruction, they generally displayed a positive attitude towards error correction. Notably, they expressed a strong preference for direct WCF that addressed both content and grammar aspects of their written work.

Also, Aridah et al. (2017) conducted a study that revealed students' preference for direct feedback, whereas teachers predominantly employed indirect feedback. This paper aimed to

investigate the types of written feedback preferred by students and the types of feedback provided by teachers in relation to students' writing. The study adopted a survey design, involving 54 students and 22 teachers selected through convenience sampling. Data were collected using a questionnaire in the form of a "Feedback Scale". The data demonstrated both points of alignment and discrepancy between students' preferences and teachers' practices. The results indicated that both students and teachers favored direct feedback, although students desired more direct feedback than what the teachers were able to provide. Furthermore, the findings revealed that teachers provided more indirect feedback than students expected. Interestingly, students also expressed a preference for unfocused feedback over focused feedback.

In contrast, Kharusi and Mecklafi (2017), found that students appreciated the teachers' predominantly indirect and unfocused feedback when correcting their work because it allowed them to identify areas for improvement based on the feedback received. This study aimed to investigate students' feedback preferences and determine which specific types of feedback are perceived as valuable and beneficial for improving their writing performance. A quantitative research design was employed, and the study was conducted at Muhammadiyah Malang University, with a sample consisting of 70 students from the English Language Education Department. The survey for students included 10 questions adapted from Aridah et al. (2017), and the data were scored using a "Feedback Scale" ranging from 0 to 1. The findings revealed that the students displayed a preference for direct corrective feedback when it comes to greater clarity and additional benefits, and preference for indirect corrective feedback when it comes to self- directed correction and learning.

Similar results to Arida et al. (2017) were attained in a more recent study by Saragih et al. (2021) who explored how students' perceptions and preferences influence their acceptance of

written corrective feedback (WCF) in a writing class among Indonesian university students. The study also investigated their preferences for various types of WCF. The research employed a survey design and collected data through a questionnaire distributed to 387 participants from two universities in Yogyakarta, Indonesia. The findings revealed that while the participants had different preferences for feedback types, they all expressed a positive attitude towards the feedback they received. They believed that WCF played a crucial role in enhancing their writing skills and language proficiency. The participants acknowledged that WCF helped them identify areas for improvement and avoid common errors in writing. The results further indicated that among the different feedback strategies examined, direct feedback was the most preferred for enhancing students' writing skills, followed by metalinguistic feedback, reformulation, and indirect feedback.

Finally, in a very recent research, Mahmoud (2022) looked into the perceptions of Kurdish EFL learners regarding written corrective feedback and its different types. The study aimed to determine the learners' perceptions of WCF and identify their preferred types of feedback. The research was conducted at Salahaddin University, with participants selected from two different contexts: ten college learners at California State University, Northridge-USA, and 50 Kurdish learners in Iraqi Kurdistan at the Salahaddin University. The participants were chosen using a random sampling method, resulting in a total of 60 learners (32 females and 28 males) who were learning English as a foreign language. The learners had varying proficiency levels ranging from intermediate to low advanced, with ages between 18 and 25 years old. A survey questionnaire was used to collect data, consisting of two parts. The first part contained ten statements that were rated by both Kurdish EFL and ESL participants, focusing on their perceptions of WCF. The second part, rated only by the Kurdish EFL learners, consisted of ten statements specifically addressing the types of WCF. The results indicate that most Kurdish EFL participants had limited awareness

of WCF and its effectiveness as a learning tool. However, they still expected their writing teachers to provide them with WCF in writing tasks. Additionally, the findings revealed that Kurdish EFL learners preferred both direct and indirect types of WCF.

As for learner perceptions of self-correction, very few studies have looked into the different ways in which learners perceive independent self-correction vs WCF provided by the educator. One study by Schonagen (2006) examined the relationship between peer and self corrections in foreign language writing, particularly focusing on the ability to correct grammatical accuracy. The study also explored students' perceptions of the teacher, peer, and self corrections in writing, including their preferences, perceived validity, and emotional responses. The participants were 96 second-year university students learning German as a foreign language, who were asked to write a narrative essay. In the subsequent class, students either corrected their own essays or those of their peers and completed a questionnaire about the corrections. The results revealed that the peer correction group demonstrated significantly higher proficiency in correcting grammatical accuracy, although they also made more extraneous corrections. Peer corrections were preferred over self corrections. Overall, teacher corrections were perceived as the most valid form of correction, followed by peer corrections and self corrections. Furthermore, the qualitative responses regarding student emotional responses reflected the diversity of personalities within the same foreign language classroom.

Another study by Self-Zumbrunn et al. (2016) used a mixed methods study to investigate the perceptions of writing feedback among 598 middle and high school students. The study aimed to examine the predictive and mediational roles of writing self-efficacy and feedback perceptions on students' aptitude for self-regulated writing. The study also explored the explanations provided by students regarding their preferences or aversions towards writing feedback through open-ended

questions. The quantitative results indicated that students' perceptions of the feedback they received about their writing partially mediated the relationship between their writing self-efficacy and their aptitude for self-regulated writing. The combined quantitative and qualitative data highlight the significant influence of students' perceptions of writing feedback on their motivation and beliefs related to writing self-regulation in middle and high school settings.

As for learners' perceptions of peer feedback, Westmacott (2017) investigated the perceptions of Japanese language learners regarding CF in pair work, particularly in relation to their ability to notice and understand the CF provided by their partners, as well as the factors influencing this process. Six learners, who participated in pair work, were the focus of this study. Data collection methods included classroom observation, audio recording of the learners' speech during class, and stimulated recall interviews conducted after the classroom recordings. The analysis of the data revealed instances where the learners had difficulty understanding the CF provided by their partners, and their dissatisfaction with their interactions influenced their comprehension of CF. The study emphasizes the significance of learners' understanding of CF and their satisfaction with their roles during pair work interactions.

In 2008, Harutyunyan and Poveda conducted a study to examine the perceptions of 44 students at a prominent university in Ecuador who participated in a course on academic writing that employed peer revision as the primary method for enhancing their final essay compositions. The findings of the study indicate that participants in the peer revision groups believed that benefits were derived from this approach. This conclusion was drawn based on the analysis of students' responses to a questionnaire that included both closed-ended (multiple-choice) questions and open-ended questions regarding three key aspects related to the influence of peer review: critical thinking, collaborative work, and the quality of the compositions.

Another study by Nemati et al. (2017) explored the perceptions, beliefs, and preferences of L2 learners and teachers regarding feedback practices in Iranian classrooms. The aim was to bridge the gap between research, teacher practices, and learners' needs and preferences. The study involved 311 students of three language proficiency levels (elementary, intermediate, and upper-intermediate/advanced), who completed a questionnaire that focused on learners' viewpoints and preferences regarding teachers' feedback practices. The findings revealed both similarities and differences across the three proficiency levels. Overall, the participants favored direct, unfocused feedback, but there were variations in their satisfaction with their teachers' feedback practices, their perceived need for writing revision, their preferences for specific target structures, and their emotional responses after receiving feedback.

In the same vein, Trabelsi (2019) conducted a study to explore learners' preferences and perceptions of written corrective feedback in an EFL context. Qualitative data was gathered through focus groups with intermediate and pre-intermediate students enrolled in the General Foundation Program. The results revealed that the students highly valued feedback and expressed a preference for a comprehensive feedback approach. They preferred feedback that was indirect, unfocused, and initiated by the teacher. The findings also indicated that the students perceived their teacher's feedback to be timely, employing a variety of techniques, sufficient, efficient, clear, explicit, familiar, and comprehensive.

Similarly, Tian and Li (2019) conducted a study to examine the perceptions of Chinese EFL students regarding the written and oral peer feedback they provided, received, and observed in triads during an English writing course. The study involved 69 sophomores from a Chinese university who completed a questionnaire, and a subset of nine students had their oral peer feedback interactions closely observed and participated in a stimulated recall interview. The

questionnaire results indicated that students enjoyed both providing and receiving oral and written feedback, as well as observing the peer feedback interactions between the other two members in their group. However, they expressed a preference for giving positive oral feedback and receiving negative written feedback. Receiving oral feedback was perceived as more beneficial than giving it.

More recent research has also shed light of learners' specific perceptions of focused vs unfocused feedback. For example, Zhang et al. (2021) conducted a study using both quantitative and qualitative approaches to explore the preferences of EFL learners regarding four types of written corrective feedback. The study focused on grammatical, lexical, orthographic, and pragmatic errors and examined whether learner preferences were influenced by two variables: foreign language enjoyment and proficiency level. Additionally, the study investigated the preference for selective versus comprehensive WCF, which aligns with the notion of being analogous to the concepts of "focused" and "unfocused". The participants consisted of 117 university students in a Thai EFL context. Analysis of the questionnaire data revealed that learners tended to prefer more explicit types of WCF, such as metalinguistic explanation and direct WCF, for most error types, regardless of their proficiency level and foreign language enjoyment level. Higher proficiency level learners considered indirect WCF types, such as underlining and error codes, to be somewhat useful, while lower proficiency level learners did not. Moreover, the level of foreign language enjoyment appeared to influence the perception of the value of WCF in terms of scope.

Furthermore, Nguyen, Nguyen, and Hoang (2021) conducted a study to explore the perspectives of Vietnamese English as a Foreign Language students on teacher-written feedback practices in various instructional contexts. The research aimed to understand the students'

perceptions of WCF and their preferences regarding its implementation. Data were collected from 97 English-major students in a Vietnamese tertiary institution using a questionnaire and follow-up interviews. The findings indicate that teacher WCF predominantly focused on linguistic aspects, but students expressed a preference for feedback that addressed both form-related issues and broader aspects such as content/idea development and writing style. However, there were divergent views among students regarding their preferences for comprehensive versus selective feedback and direct versus indirect feedback. While students acknowledged the need to revise their writing based on feedback, their post-feedback actions varied widely. The students' preferences and expectations were influenced by their beliefs about the multifaceted benefits of WCF, including cognitive, non-cognitive, and affective dimensions.

To wrap up the chapter, it is evident that there are many areas of disagreement regarding WCF. Nevertheless, it is widely agreed upon that WCF is a complicated and multifaceted topic that lacks sufficient research, as stated by Bitchener and Ferris (2012). The favorable tidings entail that there has been a consistent increase in research on WCF over the last twenty years, with an increasing number of studies shifting from descriptive analyses to experimental approaches. Also, the above presented research results have pedagogical implications for writing teachers and learners, highlighting the need to understand how ESL/EFL learners from different countries and contexts use and perceive WCF, emphasizing the importance of giving value to WCF in writing instruction. Not only that, but research is limited on young learners with respect to WCF. In an effort to fill in this gap in the literature, the present study aimed to investigate young L2 learners, their experience with different types of WCF, the impact different types of WCF had on their improvement in accuracy in L2 writing, as well as the perceptions of these young learners of the types of WCF. Next chapter explores Individual Differences (ID) affecting WCF.

CHAPTER 4

MEDIATING FACTORS IN WRITTEN CORRECTIVE FEEDBACK

The impact of individual difference (ID) factors on instructed second language acquisition (ISLA) has long been recognized as highly significant, leading to a general consensus that ID factors affect both the process of L2 acquisition that is, how learners respond to instruction, and the product of L2 such as levels of attainment (Cohen & Henry, 2020; Pawlak, 2020a). Therefore, it is not a surprise that the last decades have witnessed a rise in the number of studies that have looked into the role of IDs in learning languages (Dörnyei & Ryan, 2015; Gregersen & Mercer, 2021; Griffiths & Soruç, 2020; Li et al., 2022; Pawlak & Kruk, 2022). These ID factors were identified as definable psychological attributes that are internal to the learner rather than shaped by the environment (Dörnyei, 2009a; Dörnyei & Ryan, 2015).

In recent years, ID variables have ceased to be seen as stable, self-contained entities, but they now tend to be regarded as interconnected, conditioned to temporal variation (Pawlak, 2012; Pawlak & Kruk, 2022). Individual differences therefore, have come to be considered flexible and influenced by external stimuli such as teaching procedures. This shift led to the total abandonment of attempts to categorize IDs due to the fact that most of them are the result of an intricate interaction between cognition, affect, and social influences (e.g., Dörnyei, 2005; Dörnyei & Ryan, 2015; Griffiths & Soruç, 2020). Moreover, while some ID factors, like motivation, have never lost their appeal and are constantly being studied, other factors such as learning styles have been largely overlooked in recent discussions.

Irrespective of the ample research studies conducted entailing IDs, there are two areas where research into IDs has been lacking. First, researchers have mostly focused on variables such

as working memory or personality, which are indeed relevant to everyday teaching practices, but their practical applications in classroom contexts remain underexplored (Biedroń & Pawlak, 2016). Second, there is still limited research that attempts to understand the mediating effects of IDs in relation to instructional strategies such as different types of WCF (Loewen, 2020; Pawlak, 2021a, 2021b). As this research study considers IDs to be impacted by learning procedures, it will also look into the impact of the different types of WCF on learner motivation as well as their preferences.

The aforementioned evolution of research into individual differences has had considerable consequences for the methodology of such research. Conventionally, empirical investigations have been adopted, where data are collected from a large number of participants to understand general patterns, such as motivation. A new and different set of methodological options is required in the case of intervention-based studies, which aim to determine how specific ID factors mediate the efficacy of various instructional procedures (e.g., deduction vs induction in teaching grammar). Such studies are needed that follow quasi-experimental designs with control groups, pretests, and delayed tests, and the treatments that are lengthy enough to study the changes in the mastery of the targeted feature (cf. Pawlak, 2014; Pawlak & Kruk, 2022). Studying individual learner differences may in fact govern the success or failure of the teaching techniques and procedures employed by educators.

Another important facet is the shift from such assumptions that learning automatically occurs by simply attending class. New canons now explicitly highlight a student's responsibility such that students have an obligation to actively participate in their educational experiences. Therefore, learning outcomes should be an expression of student involvement. The most important thing educators can do for learners is guide them to take responsibility for their learning. This

requires the active participation by the learners such that they initiate and take control of their learning process guided by supportive learning strategies (Loranger, 1994). The present study allowed young learners to become actively involved in WCF provision, taking control of their learning through recognition and correction of their own errors in written production as well as correcting peers' errors. In the same vein, educators should come to recognize that learning should be meaningful for the learner. Meaningful learning involves learners' active integration and organization of information to construct meaning and comprehension to develop a sound understanding of a subject matter (Meece, Blumenfeld & Hoyle, 1988). This brings us to the concept of learner autonomy and self-regulated learning which refers to the aforementioned active process.

4.1 Learner autonomy and second language acquisition

The concept of learner autonomy, specifically the learner's reflective involvement in learning, is now widely recognized to be of great importance for language acquisition. Learner autonomy is defined as "… the ability to take charge of one's own learning" (Holec, 1981, p. 3). Holec stresses that this ability must be acquired by formal learning, in a systematic, deliberate way. Besides setting their own learning objectives, the autonomous learner should be capable of managing their learning by using strategies and deciding on what, and how to learn. These learners should also be able to evaluate their own learning. Little (1995), however, highlights that learner autonomy does not mean total independence or the complete absence of the educator's support. Little (1995) proposes that learner autonomy is a state of interdependence between educators and learners. A similar view of learner autonomy is proposed by Sheerin (1991) who describes autonomous learners as ones who take charge of their own learning. This is accomplished by the

learners diagnosing their own personal needs and locating appropriate resources to facilitate their learning. Littlewood (1996) believes that for autonomous second language learners to make independent choices, two components are necessary, specifically ability and willingness. Ability is determined by attainment of the necessary skills for implementing appropriate choices whereby willingness is having the motivation and the self-confidence to take responsibility for their choices. Research by Hojeij and Hurley (2017) also supports this perspective, highlighting that self-editing encourages learners to be more reflective and autonomous leading to heightened motivation.

In order to promote this type of autonomy for lifelong learning, which is a highly desired learner attribute in our modern times, the focus of education should train learners to know how to learn. Teaching should involve a learner-centered approach, an approach that equips them to work independently and autonomously (Derrick, Ponton, & Carr, 2005). According to Finch (2002), learner-centered approaches to L2 teaching that arose in the 1980s and 1990s such as the learner-centered curriculum (Nunan, 1988), learning-strategy training (Oxford, 1990; Wenden, 1991), project-based learning (Legutke & Thomas, 1991), collaborative learning approach (Kohonen, 1992; Nunan, 1992), and learner-based teaching (Campbell & Kryszewska, 1992) all hailed the creating of autonomous and independent learners.

Nonetheless, despite all the discussions, the successful implementation of learner autonomy in second language classrooms remains limited. This is not because teachers have tried and failed, but because in the majority of classrooms the attempt has still to be made. This can also be due to the fact that learner autonomy is supported by pedagogical principles that may be a direct challenge to the “frontal” and “transmission” teaching styles that continue to be dominant in most L2 classrooms. Therefore, language teachers should develop the autonomy of their learners and direct them to take responsibility for their learning. This necessitates organizing the classroom

such as to engage learners in planning, monitoring, and evaluating their own learning. The concept of autonomy in the L2 classroom envisions learners working in groups, pairs or individually, while the educator supervises and hovers in the background (Little, 1991; Benson, 2001).

In this direction, the future educator should come to recognize that the value of education must be measured by the extent to which the processes and products of learning become part of the identity of the individual learner. Learner autonomy, in other words, entails a variety of self-regulatory behaviors that develop through practice as a fully integrated part of the knowledge and skills that are the goal of learning. This means that in language classrooms the development of autonomy requires that learners use the target language at once as medium of classroom communication, channel of learning, and tool for reflection Little et al. (2003). Such is the general understanding of learner autonomy that is shared by the contributors to this research.

4.1.1 Self-regulated learning and self-efficacy

This section will look into how learner autonomy and self-regulated learning may help learners of a second language develop self-efficacy. Corno and Mandinach (1983) define Self-regulated learning as the deliberate planning of cognitive and affective processes for the successful completion of academic tasks. Hence, self-regulation involves self-monitoring, and more importantly, self-correction. This skill entails three aspects of learning: self-regulation of behavior, self-regulation of motivation, and self-regulation of cognition or understanding (Zimmerman, 1995). Consequently, self-regulated learners develop the ability to make sense of learning tasks, to set their own learning goals, create learning strategies, and to take actions to reach their educational goals (Ridley et al. 1992; Zimmerman, 1998, 2002b; Zimmerman & Bandura, 1994; Zimmerman & Martinez-Pons, 1986, 1988). Therefore, empowering learners with self-regulatory

abilities not only contributes to success in educational contexts but also endorses lifelong learning skills (Bandura, 1993) which is the peak form of cognitive engagement (Corno, 1986).

Nowadays, there seems to be a steady shift from traditional learning models, where the educator directs learning and learners perform. Teacher-centered approaches do not support self-regulated learning, and may actually deter it (Boekaerts, 1997). As a result, educators' role has evolved from being sources of knowledge to being facilitators of knowledge, focusing more on process than content (Nicol & Macfarlane-Dick, 2006). Alternatively, fashioning classroom environments where learners can actively engage both experientially and cognitively may potentially trigger the development of self-regulated learning. Existing examples of classroom techniques that encourage active learner engagement are numerous, such as learner management groups (Lilly & Tippins, 2002), documented course participation (Peterson, 2001), web-based projects (Siegel, 2000), and experiential learning exercises (Gremler et al., 2000). The proposed techniques are promising; nevertheless, they have not provided a comprehensive, broad model to understand the impact of these classroom techniques on the development of self-regulated learning skills.

For learners to act as agents, proactively engage in their own development, and employ self-regulatory strategies, a key determinant is the beliefs they hold about their own capabilities (see Zimmerman & Cleary, 2006). Therefore, knowing about self-regulatory learning does not ensure its effective practice. In this direction, learners must also believe that they can use such self-regulatory strategies effectively. This belief in one's self-regulatory capabilities is self-efficacy for self-regulated learning. It presents as an imperative predictor of learners' successful use of self-regulatory strategies (Bandura et al., 1996, 2001; Bandura, et al., 2003; Bong, 2001; Zimmerman & Bandura, 1994; Zimmerman et al., 1992).

On another note, learners' beliefs that they have self-efficacy and are capable of self-regulated learning is related to heightened motivation and better achievement (see Bandura, 1997; Pajares, 2007). For example, owning self-regulated learning skills correlates positively with academic self-efficacy and academic self-concept, leading to holding a mastery goal orientation and overall grade point average. This also correlates negatively with academic L2 anxiety (e.g., Joo, Bong, & Choi, 2000; Pajares & Graham, 1999; Pajares, Miller, & Johnson, 1999; Pajares & Valiante, 2002; Usher & Pajares, 2006; Zimmerman & Bandura, 1994; Zimmerman et al., 1992; Zimmerman & Martinez-Pons, 1990).

Learners' reported practice of self-regulatory skills differs according to academic level. Zimmerman and Martinez-Pons (1990) found that some self-regulatory learning strategies such as reviewing texts and asking for help from adults declined as learners go up class levels. Other strategies like record keeping and organizing were more frequently used by learners in intermediate level Grades 8 and 10 and less by learners in Grade 5. Similarly, Pajares and Valiante (2002) measured the self-beliefs of learners in Grades 3 to 11. They reported that learners' confidence in their self-regulatory learning strategies diminished from elementary to high school. A similar decrease was observed in learners' academic self-efficacy beliefs indicating that learners at the primary level had more positive views of their self-regulatory skills and their self-efficacy.

In addition, previous studies have brought to light the importance of developing writing self-efficacy by amplifying learner engagement with WCF (Bruning et al., 2013). The writing process can be tedious and frustrating (Wright & Pade, 2020). Therefore, learners need to become self-confident enough to effectively engage in learning because ‘‘self-regulatory skills are needed not only to generate productive ideas and writing strategies but also to manage the anxieties and emotions that can accompany writing’’ (Bruning et al., 2013, p. 29). They also argued that writing

being a demanding realm, motivational circumstances are less than perfect. Hence, in order to help L2 learners improve their writing skills, it is crucial to come up with ways to assist them to develop self-efficacy by applying self-regulation skills.

As previously mentioned, self-efficacy is a major determinant of the level of learner engagement with WCF (Papa, 2015; Walker et al., 2006), but the correlation between the two variables has not yet attracted much interest in the field of L2 writing (Kirmizi & Kirmizi, 2015). Specifically, how L2 learners' writing self-efficacy improves the level of engagement with the WCF provided by educators and peers still remains mostly underexplored. Similarly, Usher and Pajares' (2008) findings highlight that self-efficacy for self-regulated learning in the L2 is positively correlated with achievement in L2 writing. Consequently, it is highly important that educators find ways to help learners develop self-efficacy to enhance learner engagement with WCF in an effort to improve L2 writing competence.

A significant contribution to the field is Sangeetha's (2020) research, which examined the influence of self correction techniques on the writing abilities of adolescent EFL students. The study aimed to determine how teaching self-editing strategies could contribute to improving learners' writing proficiency while also encouraging greater learner autonomy. Adopting a mixed-methods design, the research involved analyzing composition scores, administering questionnaires, and conducting semi-structured interviews. Results indicated a substantial enhancement in learners' writing performance and increase in linguistic awareness. Moreover, learners expressed favorable perceptions of the self-editing process, appreciating the opportunity to critically assess their own writing. Insights from the qualitative data highlighted that students considered self-editing essential for developing independence in their writing practices. By

becoming more involved in recognizing and addressing their own mistakes, learners exhibited a stronger sense of ownership over their writing.

In a quantitative study, Tsao (2021) aimed to examine the influence of EFL learners' self-efficacy in L2 writing on their engagement with WCF provided by both teachers and peers. The research involved 227 senior high school students from Taiwan, who responded to two instruments: a Learner Engagement with Written Corrective Feedback Scale and an L2 Writing Self-Efficacy Scale. Results indicated that participants generally reported low to moderate levels of writing self-efficacy in their second language. Notably, among the three dimensions of writing self-efficacy—ideation, conventions, and self-regulation—only self-regulation showed a significant predictive relationship with students' engagement in teacher and peer feedback. These findings contribute to a deeper understanding of L2 learners' writing self-efficacy and shed light on the relatively unexplored link between writing self-efficacy and engagement with written corrective feedback. The current study investigates how self-regulation skills are related to levels of motivation among L2 learners to engage with WCF from both educators and peers, as well as to initiate self-correction.

4.1.2 Self-regulated learning and learner autonomy

In 1986, psychologist Albert Bandura introduced a theory of human functioning that focused on the importance of cognitive, self-regulatory, and self-reflective processes in how people adapt and change. His perspective emphasized individuals as active agents in their own growth, differing from earlier psychological theories that portrayed humans as passive beings influenced mainly by external environments or unconscious drives. Therefore, social cognitive theory emphasizes the crucial role of human agency in learning. For learners to achieve success, they

must actively monitor and control their behaviors, adapt to shifting environmental factors, and manage their thinking processes to come up with effective strategies for learning. Self-regulated learning requires a metacognitive understanding that supports goal-oriented actions like focusing on instruction, identifying key information, linking new concepts to existing knowledge, maintaining personal motivation, and creating effective study habits (Schunk & Zimmerman, 2003).

For over a decade, learner autonomy has been a key topic of discussion among language teachers and applied linguists. In order to promote lifelong learning, a much-desired attribute among learners, education needs to focus on 'knowing how to learn' such that teaching and learning emphasize a learner-centered approach that develops independent and autonomous learners (Derrick, Ponton, & Carr, 2005). Self-regulated learning is an important aspect of learner's academic performance, and it should present as an explicit goal of classroom instruction at schools, as students who are taught self-regulated learning strategies become more self-regulated (Travers & Sheckley 2000).

Researchers have suggested various models of self-regulated learning (see Schunk & Zimmerman, 1994b), and they assume that learners can actively regulate their cognition and motivation through these processes. However, many students reach college level without becoming self-regulated learners. Although there is some evidence that formal attempts to teach students to be self-regulated learners can be successful (Hattie, Biggs, & Purdie, 1996; Simpson, Hynd, Nist, & Burrell, 1997), there are still many unresolved issues regarding the teaching of cognitive and self-regulatory strategies (Schneider & Pressley, 1989; Schunk & Zimmerman, 1994a).

Ponton et al. (2005) argue that formal education ought to embrace the idea that learners' confidence in their ability to learn independently can be strengthened when they are encouraged, guided, and trained to cultivate autonomy through gradually challenging learning experiences. Therefore, instructional approaches must include opportunities that foster autonomous learning like peer and self-evaluation and correction. Research shows that learners who are trained to work independently through learning activities develop self-efficacy and autonomy.

A study was conducted by Tavakolizadeha and Ebrahimi-Qavam (2011) to examine the effectiveness of training in self-regulated learning strategies on enhancing self-efficacy and autonomy among second-grade middle-school boys. The research involved 30 participants, divided equally into experimental and control groups. To assess the variables, self-regulated learning and self-efficacy questionnaires were administered as pre and post-tests to both groups. Results revealed that the experimental group showed a significant improvement in self-efficacy and autonomy levels compared to the control group, indicating the positive impact of the training.

In another study, Myartawan, Latief and Suharmanto (2013) aimed to investigate the correlation between learner self-efficacy in relation to autonomous learning, and English proficiency. The sample comprised 120 first semester English-majored students of a state university in Bali, Indonesia. The data were collected by administering two questionnaires. Results revealed that learner self-efficacy leads to autonomy having significant, strong, positive impact on proficiency in English. Similarly, Mojoudi and Tabatabaei (2014) explored the relationship between self-efficacy beliefs and autonomy among Iranian EFL learners at the intermediate and upper-intermediate levels. The participants, 84 Iranian EFL learners, completed a 28-item autonomy questionnaire and a 34-item self-efficacy questionnaire. The results indicated a moderately strong correlation between self-efficacy and autonomy among upper-intermediate EFL

learners. Additionally, it was found that the mean scores for both variables were higher among upper-intermediate learners compared to their intermediate counterparts.

In a similar vein, Kulakow (2020) studied the relationship between self-efficacy, autonomy support, and learning approaches in adolescent. The study employed latent mean comparison utilizing questionnaire data collected over two waves from a German adolescent sample (N = 1153). Findings from the multigroup structural equation modeling indicated that autonomy mediates the relationship between self-efficacy and learning approaches exclusively among students attending schools that implement student-centered educational practices guided by competence-based matrices, as opposed to traditional, teacher-led environments. This mediation effect was particularly evident in early adolescents. Importantly, the study revealed that adolescent learning strategies can be positively influenced by autonomy-supportive environments, regardless of students' levels of self-efficacy.

More recently, Ismail, Nikpoo and Prasad (2023) aimed to enhance self-regulated learning, self-efficacy and learner autonomy among Iranian EFL learners through the implementation of collaborative work. A total of 57 participants were evenly divided into an Experimental Group (EG) and a Control Group (CG). Prior to the intervention, three questionnaires were administered to evaluate the learners' levels of self-regulated learning, autonomy, and self-efficacy. The EG was then exposed to instruction incorporating authentic assessments, while the CG received traditional, non-authentic assessments. Post-tests were conducted using the same three instruments to measure the impact of the intervention. Results revealed statistically significant differences between the two groups, with the EG outperforming the CG in all three post-tests—self-regulated learning, autonomy, and self-efficacy.

These findings from the aforementioned studies underscore the relevance and potential of providing learners with opportunities to develop self-regulated and autonomous learning skills because learners who are taught self-regulated learning strategies became more self-regulated and displaced autonomy leading to self-efficacy. Applying self-regulated learning is an imperative predictor of learner's academic performance, and it should become a classroom goal for instruction at schools.

4.2 Key Constructs in L2 Motivation Research

Motivation was initially established in social psychology during the 1970s by Lambert, Gardner, and Clément. Their research led to the development of a motivational theory focused on language-related attitudinal factors. A key aspect of Gardner's (1985) motivation theory is the distinction between integrative and instrumental motivation. Instrumental motivation refers to the desire to learn a second language for practical purposes, such as improving career prospects, achieving academic success, passing an exam, or gaining access to information. According to Gardner and his colleagues, integrative motivation is believed to contribute to more successful second language acquisition. While Gardner's theory has been widely adopted by many researchers, it has also faced criticism, primarily due to its limited generalizability to other contexts. Nonetheless, it laid the foundation for many subsequent theories.

Since Gardner (1985), the field of psychology has come a long way from the socio-psychological stage where the emphasis was on the impact of attitudes on learning. Alongside this, new theoretical proposals have emerged as to how motivation affects L2 learning. One of these is the cognitive-situated phase built on theories of motivation such as Self-Determination Theory and research on L2 motivation and learning (Deci & Ryan, 1985). Another is the process-oriented

phase dealing with changes in the nature and intensity of motivation (e.g., Dörnyei & Ottó, 1998). For instance, Dörnyei and Ottos (1998) regarded motivation as context-dependent, influenced by the immediate learning environment, and as part of a dynamic system, identifying several distinct stages. Dörnyei (2005) introduced this process-oriented conceptualization of motivation along with a reinterpreted view of the integrative motive. This approach posits that motivation is not static but rather a dynamic process that evolves over time. This phase refers to a stage in L2 motivation research where motivation is understood as context-sensitive, constantly changing, and a socially embedded process rather than a fixed trait. It is worth noting that the emergence of new phases did not invalidate or replace earlier theoretical frameworks; therefore, research on motivation continues to attract a wide range of theoretical perspectives.

Later studies followed the socio-dynamic phase framework which focuses more on the social dynamics within a group or system. In education, this entails the phase where students' social interactions, group dynamics, and cultural contexts become central in influencing learning outcomes offering evidence that motivation fluctuates throughout a learner's life (Ushioda, 2007; Shoaib & Dörnyei, 2005). This model integrates a range of linguistic and psychological factors, including linguistic self-confidence, the desire to connect with others, interpersonal motivation, intergroup attitudes, motivation and learning climate, aspects of the social situation, communicative competence and experience, as well as various personality traits. As Dörnyei and Skehan (2003) highlight, this approach combines psychological and linguistic aspects organically.

Another widely recognized motivation theory that deals mainly with language learning is Self-Determination Theory (SDT). Deci and Ryan (1985, 2000) developed this theory to understand human motivation in educational settings. This theory predominantly distinguishes between two types of motivation: intrinsic and extrinsic. Intrinsic motivation refers to where

learners engage in an activity out of sincere interest or enjoyment, whereas extrinsic motivation is engagement driven by external rewards or coercion. Fundamental to self-determination are three basic psychological needs: the sense of control and having the freedom to make one's own choices presented as autonomy, a sense of mastery presented as competence, and a sense of connection with others expressed as relatedness. It is only when these needs are met, are learners more likely to internalize goals and exhibit higher levels of motivation and engagement (Deci & Ryan, 2000).

When it comes to L2 acquisition, SDT has been particularly helpful in explaining the relationship between the development of motivation and language learning. Research has shown that learners who experience greater autonomy demonstrate more positive attitudes toward learning a second language (Noels et al., 2003). Similarly, language classrooms that are supportive to autonomy promote better engagement and self-regulation (Ushioda, 2011). Moreover, studies have shown that pedagogical practices based on SDT principles, such as collaborative tasks, corrective feedback, and opportunities for self-reflection support better learner engagement and enhanced performance (Jang, 2023; Ryan & Deci, 2023; Wang et al., 2024). As for writing instruction, integrating strategies like peer and self-correction can enhance feelings of autonomy and competence, thereby increasing students' willingness to revise and improve their work (Ebrahimi et al., 2021; Fathi et al., 2021; Li, 2025). These findings support the notion that when learners are given meaningful choices and feel competent and supported in their efforts, they are more likely to develop the motivation needed for sustained language development.

Lately, two central shifts have taken place in the field of motivation and SLA. The first shift deals with the incorporation of current ideologies as well as new findings in the field of SLA to re-conceptualize the motivational self-construct originally proposed by Gardner (Gardner, 2001). The second shift deals with internationalization of English, multilingualism, and English as

a leading language in academia (Lo Castro, 2001). This move no longer connects the English language to specific cultures or people and sees it as a lingua franca (Coetzee-Van Rooy, 2006). In addition, initiating from these important shifts, SLA researchers have started to regard the learner as a whole individual who is dynamic and continuously changing (Ushioda, 2007; Yashima & Arano, 2015). From these shifting viewpoints, the L2 motivational self-system model came to be, proposed by Csizér and Dörnyei (2005) and Dörnyei (2009) and is discussed in the next section.

4.2.1 Motivational self-system and second language acquisition

It is widely agreed that motivation as an ID factor plays a key role in second language learning. Ellis (2008) stated that no single ID factor in language learning has received as much attention as motivation. Dörnyei and Ryan (2015) propose that "without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricula or good teaching enough" (p. 72). Therefore, it is justifiable that L2 motivation continues to attract the interest of SLA researchers (Lamb et al., 2020).

In 1959, an early study on motivation and its impact on second language acquisition was done by Gardner and Lambert whose social psychological learning model stated that L2 achievement may be mediated by the learners' attitude and motivation towards acquiring the target language. According to Gardner and Lambert (1959), acquisition occurs when the learner's goals for learning an L2 are a consequence of positive attitudes and inclination towards the target language. They claimed that aptitude in an L2 was dependent on at least two independent factors, language proficiency and motivation.

On the other hand, in the field of Psychology, studies were published by psychologists such as Weiner (1972) and Maslow (1971) again linking L2 acquisition to attitudes and motivation.

Considering that motivation seems to be necessary for the child to learn his first language, Lambert and Gardner (1985) hypothesized that the same kind of motivation should apply for second language learning. While they stated that people can master a second language regardless of their aptitudes when the social setting demands it, linguists such as Carroll (1993) argue that aptitude may still account for individual differences in language learning success. Bridging these two factors, Gardner and Lysynchuk (1990) suggest the importance of both motivation and aptitude though stressing that motivation can be altered more readily than aptitude. In a later research, Gardner et al. (1989) investigated the interactions between attitude, motivation, and aptitude and their impact on the acquisition of an L2. The results were somewhat different from earlier studies. They found a clear link between aptitude and L2 achievement in learners who arrive to the L2 relatively more proficient than their peers. Still, they found that there is a link between motivation and language proficiency, that it is less direct, but nonetheless is manifested. Consequently, these theories suggest that increasing the learner's L2 motivation may result in acquisition, such that by altering motivation, educators can push for change in a learner's attitude toward the L2 also increasing motivation to acquire the second language.

In addition to motivation and aptitude, L2 acquisition is also related to effort and desire to learn a second language (Gardner, 1985). Hence, motivation in SLA can be described as the degree to which the language learners make effort to achieve this goal. Even if the learners are motivated, they still need to make an effort to learn the L2. Therefore, the concept of motivation is not a single construct and cannot be measured as such. Gardner (1985) considers effort and desire as the prerequisites to call an individual a motivated person.

Dörnyei (2009) argued that instead of conceptualizing learners in terms of distinct ID factors, research should aim to look into blends of cognition, effect, and motivation that act as a

whole. Such integration of different factors in SLA research is seen in Dörnyei's (2005, 2009) concept of 'ideal' and 'ought to' selves. Dörnyei (2009) proposes a comprehensive concept of L2 motivation introducing the L2 motivational self-system. This interpretation of motivation entails three dimensions. The first is the *ideal L2 self*, a motivating force representing learners' aspirations to become competent in the L2 through reducing the incongruity between the actual and the ideal selves. The second is the *ought-to self*, which refers to the self that the learner he /she should be. This also involves external pressures such as parental expectations and the fear of negative outcomes like failing or dropping out. The third dimension refers to the L2 learning experience, which deals with the context and learner experience including the influence of the immediate learning context in the form of the quality of classroom instruction. According to this model, motivation is driven by the tension between a learner's present self and their envisioned future self, with motivation arising from the effort to close the gap between the two (Csizér, 2020; Dörnyei, 2009).

At this point, it is worth mentioning that learners' motivation and motivating learners should be distinguished. While older studies concentrate on learners' motivation Alamer (2024) consider motivating learners as one of the new research areas. Drawing on Gardner's research, Dörnyei (2001; 2005) suggests a number of strategies for teachers to motivate their students in language classrooms. Dörnyei states that educators can increase student motivation by means of creative techniques. First is the development of motivational strategies through a wealth of resources that teachers can use to create a motivational classroom environment. The second idea entails educators and peers collaborating to develop self-motivating strategies that enable learners to take control of their learning and shape their involvement in the learning process. By this, motivation becomes the sole responsibility of the learners and not the educators or peers. However,

it is important to acknowledge that learners will not automatically take ownership of their learning, but they need support in this process (Dörnyei, 2005). This study explores learners' motivation and effort in relation to a creative WCF strategy where young learners, either working with peers or on their own, are actively involved in the provision of feedback on writing tasks.

4.2.2 L2 writing tasks and task motivation

It is more and more common that the learning of English as an L2 begins at an early age (3-4) (Enever, 2018), and young learners start to write in the L2 in primary school (Pinter, 2011). At this early stage, L2 writing tasks are typically employed individually and reinforced by teachers' WCF. For this reason, it is crucial for educators and WCF and SLA researchers working with young learners to understand the potential of writing tasks as well as the effectiveness of different types of WCF. The potential of L2 writing tasks for young learners has only recently attracted attention from researchers (Calzada & García Mayo, 2020a, 2020b, 2021a, 2021b; Coyle & Roca de Larios, 2020).

Manchón (2020) states that, compared to oral tasks, writing tasks have a slower pace, are more demanding when it comes to precision and accuracy, and they encourage the use of additional complex structures. Thus, writing tasks promote L2 learning by facilitating noticing (Manchón, 2011, 2020). Therefore, writing can be seen as an instrument to acquire an L2. This perspective has come to be known as the writing-to-learn approach, triggering a pool of empirical studies which aim to understand how writing tasks, with or without the provision of WCF, can enhance L2 learning (Leow, 2020). Yet, empirical research with young learners is still relatively infrequent (Manchón, 2011). For example, the provision of direct feedback which is likely the most commonly used method in primary education, has been extensively studied with adult learners

(e.g. Bitchener, Young & Cameron, 2005; Ferris, 2006; Lalande, 1982; Van Beuningen, De Jong & Kuiken, 2008, 2012), but has rarely been studied with children (Coyle & Roca de Larios, 2014; Gorman & Ellis, 2019). In addition, the provision of mixed types of feedback strategies remains mostly unexplored.

Our understanding of the potential of L2 writing tasks is still fractional because most research has looked into linguistic gains. This has generated a research gap for future studies that include non-linguistic aspects, such as task motivation (Al Khalil, 2011; Dörnyei & Kormos, 2000; García Mayo, 2018). Studying task motivation is important because this type of motivation affects learners' engagement as well as the learning outcomes (Al Khalil, 2011; Dörnyei, 2002). A learner's motivation for learning an L2 may guarantee a positive attitude towards learning the language, but what is more crucial for learning to be successful is engagement with particular tasks (Dörnyei, 2019). Understanding task motivation is also pertinent from a pedagogical perspective, especially writing tasks which have been described as one of the most challenging activities L2 learning (Hyland, 2003).

At a young age, self-regulation is still developing, meaning that unlike adults, children do not feel motivated to engage in boring' tasks out of awareness of their learning potential (Schunk & Pajares, 2002). As highlighted, despite its importance, very few research studies that look into L2 writing tasks and WCF have included motivation among its research goals. A few studies with adults have looked into this relationship. Yu, Jiang and Zhou's (2020) large-scale survey of Chinese university students' attitudes to different types of feedback on writing concluded that direct WCF could have a demotivating effect, especially when all errors are marked. As for young learners, very little is known about their motivation in relation to different L2 writing tasks and WCF.

Studies with young learners have primarily used motivation thermometers to understand children's motivational temperaments. Two such studies by Azkarai and Kopinska (2020) were conducted with the same cohort of Spanish primary school EFL learners. They applied thermometers to analyze the young learners' motivation toward dictogloss tasks. The learners' patterns of interaction as well as task motivation while working in pairs were investigated. Results showed positive dispositions toward the task. In their second study, Kopinska and Azkarai (2020) provided tasks where the young learners performed dictogloss tasks both individually and in pairs. Although the learners exhibited high levels of task motivation, those who worked in pairs showed high motivation at all times, while that of the individuals fluctuated. Another finding was that learners associated their motivation to their enjoyment of pair work, commonly appreciating the support provided by their peers.

In a similar study, Lázaro-Ibarrola and Villarreal (2021) aimed to explore task motivation in young learners working in pairs. Participants were divided into a task repetition group and a control group. The task repetition group demonstrated high motivation throughout while the control group's motivation showed a decrease. Similar to the previous study, learners justified their scores by the fact that they enjoyed collaboration and thus were motivated. Considering the limited number of studies to date that have included task motivation in L2 writing, young learners, and WCF, there is an urgent need to investigate learners' motivation toward writing tasks and different types of WCF. To address these gaps, the present study looks into task-related motivation in young learners engaging in L2 writing and WCF provision.

4.2.3 Self-efficacy and self-regulated learning and motivation

One important ID factor that has shown to be related to developing self-regulated learning is a learner's self-efficacy beliefs. Self-efficacy is one's subjective certainty of the ability to deal

with difficult or new situations based on one's own competences (Bandura, 1977; Honicke & Broadbent, 2016; Schwarzer & Jerusalem, 2002). Previous research backs up the idea that self-efficacy beliefs enhance motivation and are associated with goal orientations and achievement (Bandura, 2006; Banduraet al., 1996; Bandura et al., 2003). Self-regulated learning is when students actively regulate their own learning through cognitions, metacognitions, behavior, and motivation (Schunk & Zimmerman, 1994; Zimmerman, Bandura, & Martinez-Pons, 1992). Theories of self-regulated learning highlight the importance of self-regulation of motivation for positive outcomes in learning (e.g. Pintrich, 2000; Sansone & Thoman, 2006; Schwinger & Stiensmeier-Pelster, 2012; Zimmerman & Kitsantas, 2005). According to Wolters (1998, 1999, 2003) self-regulation of motivation refers to the active control of one's own motivation with the purpose of improving or sustaining its levels. It is the learners' beliefs of whether they can successfully implement measures to effectively regulate their motivation levels even if a task is boring or difficult. From this perspective, motivation refers to the willingness to put in effort to take part in a learning activity. Research places motivation in the position of a precursor of achievement regardless of cognitive abilities and prior knowledge (e.g., Hattie, 2009; Steinmayr, Weidinger, Schwinger, & Spinath, 2019). Consequently, self-regulation of motivation has been shown to be an important predecessor to learning (e.g., Schwinger, Steinmayr, & Spinath, 2009; Schwinger & Stiensmeier-Pelster, 2012).

The process of regulating one's own motivation is assumed to be impacted by other ID factors for example, cognitive abilities, personality traits, and motivational temperaments. These factors may influence how effectively one navigates motivational strategies (Schwinger & Stiensmeier-Pelster, 2012; Smit, de Brabander, Boekaerts, & Martens, 2017). From the varied

range of ID factors, learners' self-efficacy appears to be an important source for motivation regulation, which in turn may lead to success or failure in learning (Honicke & Broadbent, 2016).

According to Zimmerman and Cleary (2006), an important factor influencing whether learners use self-regulation strategies is their belief in their ability to do so. These self-regulatory efficacy beliefs trigger several outcomes. To begin with, students who have strong confidence in their self-regulatory skills are more likely to effectively apply these strategies across different academic areas, have confidence in their ability to regulate their learning, and have higher motivation. They also have higher academic self-efficacy, perceived importance of education, and achievement goals. Furthermore, self-regulatory efficacy is associated with academic success in areas like writing, science, math problem-solving, and overall academic achievement, including course grades.

To increase task-specific or situation-specific motivation, researchers have identified several regulation strategies (Kim, Brady, & Wolters, 2018; Schwinger et al., 2009; Wolters, 2003). Some strategies are designed to boost overall interest in a task by making a learning situation more playful or by enhancing personal significance of learning task by building a bridge between learner interests and the learning task. In a similar vein, some strategies like performance-approach self-instruction and performance-avoidance self-instruction have been identified in the Achievement Goal Theory (e.g., Dweck & Leggett, 1988; Elliot, 1999). The performance-approach self-instruction entails learners setting goals for their own learning and subsequently, exerting effort to achieve better outcomes than their peers, especially in peer-work. The performance-avoidance self-instruction occurs when the learner puts in effort to achieve something so as not to embarrass oneself in front of peers with low achievement. Controlling the environment to avoid distraction during learning can also be used to maintain or increase motivation especially during periods of

self-study. Another motivational strategy is ability-related self-instruction where previous success in similar situations may increase motivation specifically when repeating similar or familiar tasks. It is important here to indicate that there is a difference between motivation regulation strategies and strategies such as goal setting for self-regulated learning (Pintrich et al., 1991; Wolters, 2003) The intention in motivation regulation is to increase or maintaining motivation whereas, with learning strategies it is the mere regulation of cognitive aspects of a task. When learners have self-efficacy beliefs, motivation regulation is successful, leading to effort and persistence in a task. This formula in turn, positively influences achievement (Schwinger et al., 2009; Schwinger & Stiensmeier-Pelster, 2012).

Academic self-efficacy beliefs and self-regulated learning and their impact on learning have been examined in cross-sectional and longitudinal studies and across samples of university and school students. Zimmerman et al. (1992) measured the impact of self-efficacy on self-regulated learning and motivating oneself for studying. A sample of 102 ninth and tenth grade students took part in the study. Results revealed an indirect relation of self-efficacy for self-regulated learning and academic achievement and are in accordance with social cognitive theory. Similarly, Bandura et al. (1996), aimed to study the impact of children's self-efficacy beliefs and their ability to regulate their own learning on academic achievement. The sample comprised 124 children in the last year of elementary school and 675 junior high school students in Grades 6-8. The students were drawn from four public schools: two elementary and two junior high schools in a residential community located near Rome, Italy. The participants were administered scales measuring the variables of theoretical interest in their classrooms over a period of several days. Additionally, data for the variables were administered individually and collected from the parents, teachers, and peers. Bandura et al. (1996) found that self-efficacy leading to self-regulated learning

could predict academic achievement. Caprara et al. (2008) examined self-efficacy for self-regulated learning in a longitudinal study with groups of 12 to 22-year-old students. Self-efficacy was studied in relation to grades and school dropout. Results showed that decline in self-efficacy beliefs for self-regulated learning were associated with lower grades and a likelihood of dropping out of high school. Moreover, self-efficacy operated as a mediator between junior and senior high school grades and the probability of dropping out of school.

A research study by Schwinger et al. (2009) presumed that the impact of motivational regulation strategies on achievement may be mediated by effort and intelligence. 231 11th and 12th grade German high-school students comprised the sample. The participants provided self-reports on their practice of motivational regulation strategies and effort management by completing an intelligence test. After six months, participants' half-year grades (GPA) were evaluated. Motivational regulation strategies showed no direct relation to GPA but positive effects on effort which in turn forecasted GPA. In addition, intelligence and effort were equally strong predictors of GPA.

Trautner & Schwinger (2020) explored possible mechanisms in which self-efficacy beliefs for motivation regulation may influence students' use of motivation regulation strategies, effort expenditure, and achievement and Tabssam (2021) studied the impact of self-efficacy, learner autonomy and motivation on second language learners. These researchers investigated whether self-efficacy for motivation regulation impacts the frequency of motivational strategy use and whether this influences effort and achievement. They also looked into the relationship between self-efficacy, learner autonomy, and motivation in ESL learners. Results revealed a strong correlation between self-efficacy, learner autonomy, and motivation in L2 learning. The also results showed that motivation had the most significant effect on learning English as a second language.

Overall, the findings indicate that supporting learners' self-efficacy beliefs for motivation regulation can lead to self-regulatory success.

To conclude, learners who believe in their capabilities to regulate their learning and motivation will be more dedicated and engaged when applying motivation regulation strategies. These higher self-efficacy beliefs may stem from past successes, for example, repeating similar tasks to achieve acquisition. As indicated by the literature, learners who are given agency and given ample opportunities to develop self-efficacy will have better self-regulated learning and motivational strategies. Self-efficacy leading to self-regulated learning and motivation is likely task-specific such that the task itself impacts the judgment of what one can do. It is likely that self-efficacy for self-regulated learning will mostly prove predictive of academic outcomes measured in a manner that is specific to the academic task at hand. For example, beliefs in one's capability to reduce errors through correction and WCF may be related to behavioral or motivational outcomes in the domain of improving accuracy in writing. This research will give young learners agency to get actively involved in WCF provision to develop their self-efficacy leading to self-regulated learning via a repeated task. This in turn is anticipated to heighten motivation, interest, and effort.

4.2.4 Research on motivation and peer and self WCF

Developing self-regulated learning skills and autonomy may also help students improve their language; henceforth, the pedagogical strategies of peer and self-correction have received growing attention (Schunk & Zimmerman, 1994b). Moreover, motivation has emerged as a fundamental influence on how learners engage with, perceive, and benefit from WCF. Educators need to fully acknowledge and understand the interaction between motivation and peer and self

WCF to design effective WCF procedures that can amplify learner engagement and enhance writing performance. Han and Hyland (2015) examined the participation of L2 learners in WCF and found that learners' engagement in revising their errors is subject to ID factors. The researchers recommended that to produce better writing, educators need to understand these ID factors to improve learner engagement with WCF. Consequently, the significance of ID factors in learners' L2 writing is established; nevertheless, few studies have explored the impact of ID factors on WCF (Bakri, 2015; Rahimi, 2015).

Merging ID factors with the L2 motivational self-system, Dörnyei (2019) expands on the variable of the L2 learning experience defining it as "the perceived quality of the learners' engagement with various aspects of the language learning process" (p. 19). Evidently, engagement is key for learner motivation. Hence, learner engagement involves meaningful learner participation, which in turn plays a prominent role in L2 writing development. More precisely, and according to Koltovskaia, (2020), analyzing L2 learners' revision processes and how these learners engage with WCF may provide a better understanding of the extent to which they develop meta-cognitive skills to notice, assess, and improve writing.

Regarding the internal structure of learner engagement with WCF in L2 acquisition, Ellis (2010) explains how ID factors like motivation interact with contextual factors such as L2 setting to facilitate the rapport between WCF received and learner engagement. Ellis (2010) theorized this concept from three perspectives: cognitive, which is how learners respond to the like noticing and understanding linguistic errors, behavioral, which is learners' uptake and revision stimulated by WCF provision, and affective, which is learners' attitudinal responses to WCF. Added to these, Svalberg (2009) proposed an additional dimension which is social engagement referring to the interactive component in language learning. However, learners may not equally benefit from WCF

due to ID factors such as aptitude, attitude, and motivation mediating achievements in writing (Hyland, 2011; Sheen, 2007). Overall, learners with a high aptitude, a positive attitude, and strong motivation benefit more from WCF. Therefore, the motivation ID factor may be responsible for positive engagement with WCF where learners are motivated to respond to feedback and correct their errors. Gan (2020) determined that L2 motivation results in different feedback experiences for learners. In addition, learners' feedback preferences and whether they will be involved in feedback processes rely heavily on their attitudes towards the learning experience as a whole and their intended learning effort. Therefore, educators should employ motivating tasks in the classroom (Robinson, 2011) especially when working with young learners who will probably put in more effort in activities they enjoy (Kiss & Nikolov, 2005).

Shin and Dickson (2010) studied how graphical feedback on students' performance affected their motivation and academic performance in a master's level online course. The study utilized motivation theory to compare two forms of feedback (self- vs. peer-referenced) and used innovative graphical displays to present this feedback. The study was designed as a cross-over experiment involving pre-, post-, and post-post-tests to compare the two types of feedback on students' achievement goal orientations, interest in the course, punctuality of assignment submission, and essay length. Participants were randomly assigned to a peer group and a self-group. Both groups received the same amount of feedback, but the type of feedback varied. In the first condition, students first received peer-referenced graphical feedback to compare their performance with their peers. They then received self-referenced graphical feedback to reflect on their own performance over time. In the other condition, the feedback was provided in reverse order. Results indicated that students became more performance goal-oriented after receiving peer feedback and that they became more interested in the course after receiving self-feedback.

In a similar vein, Kim and Emeliyanova (2019) aimed to compare learners' classroom revision behaviors when working in pairs and when working individually. Additionally, the study compared the effects of learners' collaborative and individual revision of educators' indirect WCF on accuracy development in their writing. Over an 8-week academic session, 36 ESL learners completed four timed essays. The educator provided indirect WCF on learners' essays, who in turn revised their writing either individually within the self-correction group or in pairs within the pair-correction group. Their revision behavior was analyzed with respect to correctness of revised errors. Accuracy in writing was analyzed in terms of the total number of errors for each 100 words. The findings indicated that the pair-correction group had a higher rate of accuracy in corrected errors compared to the self-correction group. Both groups showed significant improvement (error reduction) in accuracy with no difference in improvement between the self-correction and the pair-correction groups.

Based on data from 1190 students from 35 Chinese universities, Yu, Jiang, and Zhu (2020) investigated the impact of various L2 writing feedback strategies (i.e., scoring feedback, process-oriented feedback, expressive feedback, and peer and self-feedback) on student writing motivation and engagement. They developed a comprehensive L2 writing feedback scale and found that process-oriented feedback and WCF tended to discourage students' motivation and engagement in L2 writing, whereas, peer and self-feedback seemed to boost student writing motivation and engagement. Another study by Cui et al. (2021) investigated the longer-term impacts of a trained peer feedback strategy compared to teacher feedback on students' writing development and motivation. Across two semesters, students from an EFL writing course were randomly assigned to either teacher WCF or trained peer feedback conditions. In the first semester, students either received training in how to implement peer feedback or just studied models of writing. In the

second semester, students either received teacher or peer feedback across multiple assignments. At the beginning and end of the second semester, writing competence, writing self-efficacy, and writing self-regulated learning were assessed. Both groups had similar positive effects on the improvement of L2 writing competence and writing self-efficacy. However, the trained peer feedback group showed a significant enhancement of autonomous motivation with no growth for the teacher feedback group.

A recent study conducted in Lebanon by Diab (2023) investigated the influence of language learning strategies (LLS) and motivation on reducing L2 learners' lexical errors in response to teacher WCF. Data was collected through a pretest essay and a survey about students' motivation to learn. The 63 students aged 18-23, attending four sophomore level ESL writing courses at four universities in Lebanon received training sessions on how to apply LLS to revise lexical errors in response to teacher WCF. They also filled in a questionnaire about the strategies they used for error correction. Post training, students wrote an immediate and delayed post-test essays to monitor development in their lexical performance. Analysis of students' errors on the three testing sessions revealed that LLS significantly reduced errors. Moreover, factors such as feedback method and revision techniques influenced students' error revision.

To provide further evidence for the impact of different feedback practices on L2 learners' writing motivation, Cen and Zheng (2024) conducted a meta-analysis synthesizing the results of 13 quantitative studies on the association between WCF and L2 writing motivation. They examined the effect of different WCF practices on L2 learners' writing motivation and the variables moderating the effectiveness of those feedback practices. The results indicate that WCF generated from multiple sources has the greatest motivational function in L2 writing. Results also show that WCF type is a statistically significant variable moderating the effectiveness of feedback. Finally,

multiple-source feedback yielded the largest effect size (d = 0.83). The findings highlight the distinctive motivational power of multiple-source feedback over single-source feedback. Feedback from multiple sources had the greatest effect on promoting students' L2 writing motivation, followed by single-source feedback, including peer feedback, teacher feedback and automated feedback.

Nevertheless, the prominent role of L2 motivation and the way it may affect learner engagement with WCF still remains to be empirically elucidated by further research. Similarly, as learner engagement theoretically connects WCF to learning outcomes (Han & Hyland, 2015), to what extent learner engagement may influence writing performance is also largely unexplored in the literature (Ellis, 2010). Also, few studies have researched the impact of ID on L2 errors (Mawlawi Diab & Awada, 2022; Papi, 2018; Zheng, 2012, 2016) but no study to our knowledge has investigated the impact of educator, peer, and self-corrective feedback and motivation on influencing learners' willingness to address L2 errors marked by different types of WCF.

The current study fills the void in the existing literature by taking a novel approach to WCF provision to help both researchers and practitioners understand more clearly the mediating roles of both motivation and learner engagement with WCF in the process of L2 writing. To address these gaps, the present study analyses the potential of repeating an enjoyable writing task with peers compared to individual work among young learners of ESL in a school setting and receiving different types of WCF. Task motivation, effort, interest, perceptions, as well as writing accuracy are assessed with the aim of providing a multidimensional picture of the potential of the strategy. Next chapter will describe the methods used in the study.

CHAPTER 5

METHODOLOGY

This chapter describes the research design, the process of selecting the schools and the school contexts as well as the research participants. It also covers the development of the research instruments, the pilot study and the designing and organization procedures employed for data collection and measures for data analysis. Ethical issues are addressed at the end of the chapter.

5.1 Research Design

The present study investigates the impact of written corrective feedback (WCF) employing the *Boomerang Feedback Strategy* on L2 written accuracy, motivation, and learners' perceptions of and attitudes towards peer and self-corrective feedback among low-proficiency second language (L2) English young learners in Lebanon. The study employs a mixed-methods approach to comprehensively address the research questions with an intervention entailing a pre-treatment/post-treatment/delayed post-treatment quasi-experimental design with a control group. The study extended over 11 weeks, and included three experimental groups and a control group. The three treatment conditions comprised WCF provided by the educator (ED), by peers (PE), and a self-feedback condition (SE) where learners reviewed and attempted to correct their own errors in L2 structures. This design was chosen because it offered a more practical way for the researcher to access students and carry out the study within the classroom setting, without causing additional disruption as might have occurred with a true experimental design. Since quasi-experimental studies are conducted in environments that closely resemble real-world conditions (Seliger &

Shohamy, 1995), this approach enhances external validity and enables the researcher to gather meaningful evidence to assess whether the intervention produced the intended causal effect. Figure 1 is a depiction of the general study design:

Table 5.1

General research design

Weeks 1 & 2	PRE-TESTS (biodata, language background, language proficiency, writing, motivation) GRAMMAR INSTRUCTION
Weeks 3 & 4	TREATMENT SESSIONS
Weeks 5 & 6	
Weeks 7 & 8	
Week 9	POST-TESTS (writing, motivation, perception survey, focus group interviews)
Week 10	
Week 11	

A mixed-methods approach is used for data collection and analysis (Johnson et al., 2007; Dornyei, 2007; Bryman, 2008). This approach is widely employed in social science research (Dornyei, 2007) and involves combining qualitative and quantitative research elements to enhance understanding and corroboration of findings (Johnson et al., 2007). The strengths of one method can counterbalance the limitations of the other, making mixed methods advantageous (Dornyei, 2007; Bryman, 2008). Using both methods provides a more comprehensive analysis than relying on a single method (Johnson et al., 2007; Creswell & Clarke, 2007; Bazeley, 2004). Mixed methods also allow researchers to examine the convergence, inconsistency, or contradiction of their findings (Ary et al., 2009). Furthermore, this approach enhances the validity of research outcomes through the triangulation of results (Dornyei, 2007) and seeks the convergence and corroboration of findings from different methods (Greene et al., 1989). In the present study, it facilitated the collection of data on the effectiveness of the different types of written corrective feedback on

participants' L2 accuracy in written production, error reduction, and motivation. Additionally, it explored participants' perceptions and attitudes towards the *Boomerang Feedback Strategy* and written corrective feedback.

The key to the teaching intervention employed in this study is the *Boomerang Feedback Strategy* (see section 5.6.4 for a more comprehensive description). This teaching strategy integrates teacher, peer, and self-feedback in a structured sequence that reinforces learner autonomy, metacognitive reflection, and deeper grammatical understanding—aligned with expressionist pedagogy and form-focused instruction. Guided by Hyland's (2003) emphasis on scaffolding learner autonomy in writing, the feedback approach adopted in this study, specifically the self-correction phase of the *Boomerang Feedback Strategy*, is designed to support the internalization of grammatical rules through a process of repeated practice and engagement. Although a substantial body of research has explored direct and indirect written corrective feedback as separate approaches, relatively few studies have examined comprehensive, multi-stage strategies such as the *Boomerang Feedback Strategy*, which integrates teacher, peer, and self-feedback. This feedback model is specifically designed to promote deeper learner engagement with corrective feedback, a need that is particularly relevant for learners with low-proficiency in the target language (Ferris, 2010; Van Beuningen et al., 2012; Zhou & Warden, 2017).

5.2 Location of the Study

This study was conducted in Beirut, Lebanon primarily because the researcher, being a Lebanese citizen, has direct access to Lebanese-Armenian schools and was able to guarantee that these schools would not only grant access but also support the extensive intervention required for data collection. The selection focused on three Armenian Evangelical schools, chosen out of

convenience as the researcher had previously collaborated with them and was granted full access. The schools which are all high schools, offering education from kindergarten through the end of secondary school, including the Armenian Evangelical College in Hamra, Beirut, the Armenian Evangelical Central High School in Achrafieh, and the Shamlian Tatigian Armenian Evangelical School in Bourj Hammoud. These schools are situated in diverse urban neighborhoods of Beirut all within a five-kilometer radius, which allowed the researcher to gather data from a culturally and sociodemographic similar context. The close proximity of the schools also made it possible for the researcher to be present at multiple locations within a single day. This choice was also based on the freedom granted in implementing the experimental teaching strategies because the intervention was substantial, necessitating the adaptation of the curriculum to fit the research focus on writing instruction. It was also essential to work with schools that allowed such flexibility. During the intervention, students worked directly with the researcher on developing their writing skills rather than following their standard instruction under the class teachers. It is worthwhile mentioning that all three schools were very welcoming, offering full support, because they wanted to work on improving the students' writing skills in the L2. Furthermore, the researcher was granted full access to institutional resources such as photocopying machines, textbooks, and classrooms for conducting sessions. Adjustments to the schedules were also made to accommodate the researcher's needs reflecting the schools' dedication to facilitating educational research. Moreover, the educators in these schools were very helpful and expressed genuine enthusiasm and a willingness to experiment with the proposed *Boomerang Feedback Strategy*, showing interest in learning innovative approaches to teaching writing. The collaborative spirit and openness of these institutions significantly contributed to the success of the study.

5.3 Participants

In this section the recruitment process of the ESL learners and the biographical and linguistic profiles of participants will be presented, in addition to background information on the ESL educators involved in the study. Furthermore, the broader ESL context will be examined with particular attention to the curriculum, the textbook in use, and the prevailing teaching approaches adopted within the schools. This section also highlights the learners' exposure to English, both inside and outside the classroom. By providing this contextual foundation, the study aims to situate the intervention within the specific educational and sociolinguistic environment of the participating schools.

5.3.1 The ESL learner profile

Participants in this study are young, second language learners of English who are enrolled in Armenian schools in Beirut, Lebanon. The sample includes 96 primary level grade five students age 10-11 years who come from two different language backgrounds: Lebanese and Lebanese-Armenians. The learners with solely Lebanese background have Arabic as their L1 with both parents being of Lebanese descent. In these households, Arabic is the primary language spoken at home. Learners from Lebanese-Armenian backgrounds fall into two distinct profiles. The first group consists of students from mixed backgrounds, typically with one Armenian parent. These learners are usually exposed to both Arabic and Armenian at home. The second group comprises students with two Armenian parents, where Armenian is predominantly spoken in the household. This linguistic diversity reflects the multilingual nature of the student population.

The participants started learning English as a second language at preschool from the age of 3. English is the language of communication in the classroom. Outside the classroom, the

participants engage in translanguaging, fluidly using Armenian, Arabic, and some English when playing together. As for extracurricular activities, these young learners rarely use English. Communication during most of the activities they participate in, both at school and outside, is primarily in Armenian or Arabic. It is worth mentioning that these learners study French at school as a foreign language.

The selection of participants was based on several criteria. Firstly, participants had to be enrolled in the schools in which the study was conducted. Secondly, participants had to be in primary grade 5 classes with a level of English proficiency between A1 and A2, as determined by a standardized language test. This grade level was chosen because it represents a critical stage in foundational English language development, where learners begin to engage more actively with written production. Also, according to Piaget's (1970) stages of cognitive development, 10–11-year-olds are in the concrete operational stage. Furthermore, these learners are at a stage where they are less egocentric and have begun to think and feel how others might view situations. This makes way to effective peer collaboration with better understanding of the concept of collaborative conversations (Piaget, 1972). Moreover, at this stage, children are capable of learning through socializing by working with a peer (Vygotsky, 1978). Thirdly, participants had to be willing to take part in the study, with parental consent obtained through signed informed consent forms.

The final sample consisted of 96 learners aged between 10 and 11 years, with a relatively balanced distribution of genders: 47 male and 49 female students. In terms of English proficiency, 23 learners were assessed at the A1 level and 73 at the A2 level, based on results from the British Council standardized online language test[1]. This variation in proficiency levels can be attributed

[1] https://learnenglish.britishcouncil.org/english-levels/online-english-level-test

to the typical range of competencies found in a regular classroom setting. Additionally, some of the learners assessed at the A1 level were Syrian students who had migrated to Lebanon in recent years due to the war in Syria. These students had not received English instruction during their preschool years in Syria, which likely contributed to their lower proficiency scores. The same proficiency level distribution was found in each group (see Table 1 below), thus making the groups comparable to gauge the effects of the intervention.

Participants were randomly assigned to one of four groups: the control group (NF) with 22 participants, the experimental-educator WCF group (ED) with 23 participants, the experimental-self WCF group (SE) with 25 participants, and 26 participants in the experimental peer WCF group (PE). Randomization was conducted by assigning different rows in the classroom to different groups, ensuring a randomized yet logistically manageable distribution within the natural classroom setting. Given their linguistic diversity, developing proficiency, and readiness to engage with written tasks, these learners were well-suited for examining the effects of different corrective feedback strategies. Table 1 depicts the participants' biodata, language background and gender.

Table 5.2

Learners' profiles

Groups	**Participants** **n=96** **Ages 10-11**	**Males** **n=47** **49%**	**Females** **n=49** **51%**	**English Level** **A1(n)= 23** **24%** **A2(n)= 73** **76%**	**L1 Armenian Mother language (home)** **85.5% Arm.**	**L2 Arabic Language of the (country)** **14.5% Arabic**	**L2 English Spoken in class**
Control	22 23%	13 59% M	9 41% F	6A1/16A2 27.3% A1 72.7% A2	20 Armenian 2 Arabic	20 Arabic 2 Armenian	English
Exp. Educator	23 24%	11 47.8% M	12 52.2% F	6A1/17A2 26% A1 74% A2	21 Armenian 2 Arabic	21 Arabic 2 Armenian	English
Exp. Self	25 26%	13 52% M	12 48% F	6A1/19A2 24% A1 76% A2	23 Armenian 2 Arabic	23 Arabic 2 Armenian	English
Exp Peer	26 27%	10 38.5% M	16 61.5% F	5A1/21A2 19,2% A1 80.8% A2	25 Armenian 1 Arabic	25 Arabic 1 Armenian	English

5.3.2 The ESL educators

For the purposes of this study, the researcher collaborated with three ESL teachers from the participating schools. Two of the educators were in their 50s and each possessed more than 25 years of experience teaching English at the primary level. One of these senior educators also served as the coordinator for the primary English language program. The third educator was in her 30s and had seven years of experience teaching English as an L2. Two of the educators hold a bachelor's degree in either English language or education. All three of them are of Armenian descent. This shared heritage likely enriches their understanding of learners' experiences and

needs, enabling them to provide culturally responsive and supportive guidance for students' language development. On the other hand, sometimes, long-term experience might mean deeply ingrained habits that could affect the implementation of novel teaching methods and feedback techniques. The educators demonstrated a high level of collaboration throughout the study. They played an active role in supporting the researcher by overseeing the activities implemented with the control group, thereby facilitating a smooth and consistent execution of the research procedures. Their enthusiastic participation in the feedback sessions was notable, frequently allocating their own instructional time for the study. Additionally, they provided valuable insights regarding the curriculum, as well as grammar and writing instruction, which significantly enhanced the study's design and ensured its alignment with the educational context.

5.3.3 The ESL context

In the Lebanese educational system, the English language holds an important place as a second language, reflecting the country's multilingual context. Within this context, learners are exposed to English instruction as early as preschool, alongside Arabic and French. In both public and private schools English is taught at an early age as a compulsory subject, which students develop throughout their academic years. However, proficiency levels among learners vary widely due to the variability of resources and teaching quality. In Armenian schools, all subjects are taught in the Armenian language up until grade 4, after which science, social sciences, and mathematics are delivered in English. This limits exposure to authentic language use and affects learners' progress, especially at the primary level. Understanding this context is crucial for exploring effective strategies to improve English language learning.

Given Lebanon's historical and sociocultural ties with English-speaking countries, proficiency in English is highly valued by students, parents, and educators alike. Consequently, the role of English in Lebanon shapes both learner motivation and the pedagogical approaches employed by educators, making targeted interventions such as corrective feedback essential for supporting learner progress. In Lebanon, the public and private school systems differ notably in their approach to

English language instruction and curriculum. Decades of contact with foreign languages resulted in Lebanon's trilingual program. This exposure to foreign languages started with the advent of western missionaries that put down the foundations to French, British, and American schools during the seventeenth century. Lebanese learners became either "English educated" or "French educated" (Constantine, 1995; Ghaith & Shaaban, 1999). Public schools follow the national curriculum set by the Ministry of Education, where English is introduced in early grades as a second language and the focus tends to be on basic language skills, with less emphasis on communicative competence. Private schools adopt curricula modeled after Western educational systems, such as the British or American (e.g. Scotts Foresman; Houghton Mifflin Harcourt; Oxford). These schools tend to offer more immersive English instruction and greater integration of English across subjects starting from early grades. Although the schools participating in this study are private institutions, their multilingual curriculum, which includes Arabic, Armenian language and history, and French as a foreign language affects the overall intensity of English instruction. While some private schools offer eight to ten hours of English instruction per week at the primary level, the participants in this study receive six hours of English weekly entailing grammar, spelling, writing, and reading comprehension. This allocation reflects the importance of preserving the Armenian language and cultural heritage alongside English language development,

which may influence learners' exposure to and proficiency in English. For this reason, the learners in this study exhibit relatively low proficiency in English.

The schools that took part in this study use American books for the primary level. Specifically, they use Scotts Foresman reading series alongside corresponding the spelling and grammar books. These books consist of four levels; however, due to the limited number of instructional hours, the schools typically use only one or two of these reading levels, usually the first two. These materials serve as the core resources for developing foundational language skills and providing structured content. The teaching approach is predominantly explicit due to the learners' low proficiency levels and limited exposure to an immersive English language environment. Teaching approaches are traditional involving memorization of rules and patterns, followed by repetitive practice exercises aimed at reinforcing these linguistic structures. Learners at the primary level engage in structured exercises such as fill-in-the-blank activities, sentence completion, and substitution drills aimed at reinforcing grammatical accuracy. Such an approach reflects a structured, form-focused pedagogy designed to support foundational language acquisition in contexts where naturalistic language input is scarce. Grammar lessons cover nouns, pronouns, verb tenses, articles, adjectives, adverbs, prepositions, and types of sentences, with the complexity and difficulty of these topics increasing progressively as students advance to higher class levels.

In the context of Armenian private schools in Lebanon, WCF practices mirror the traditional pedagogical approaches to teaching. At the primary level, WCF is predominantly explicit and teacher-centered focusing on the identification and correction of grammatical errors, errors on the sentence-level, in addition to organization, coherence, clarity of ideas, and genre-specific conventions. Typical WCF practices include direct correction, where teachers explicitly

mark mistakes and provide the correct form, as well as the use of error codes or brief comments. Indirect feedback, such as underlining or highlighting errors without correction, is less commonly employed due to learners' low proficiency levels. Peer and self-correction practices are limited, reflecting the hierarchical classroom dynamics and the prevailing belief that educators are the primary sources of knowledge and authority.

As for teaching writing, instruction tends to be segmented and often focuses on sentence-level accuracy rather than holistic composition skills. Young learners are guided through fragmentary writing tasks, such as writing for words or pictures, progressing gradually to composing short paragraphs based on familiar topics or prompts. The integration of grammar and writing instruction is consistent with the curriculum, which emphasizes explicit knowledge transmission and accuracy in language production. While communicative and process-oriented approaches to writing are less prominent, efforts are made to connect mechanical practice with meaningful writing tasks, such as descriptive paragraphs or picture-based compositions, to encourage the transfer of grammatical knowledge to real-life language use.

Several contextual challenges affect ESL instruction in the participating schools like limited resources or shortage of updated teaching materials and technology-integrated tools that support language learning. Additionally, large class sizes of 25 or more students make it difficult for educators to provide individualized or differentiated instruction, which are essential for supporting low-proficiency learners. While the educators in this study are experienced, there is limited access to recent training in innovative feedback practices or communicative teaching methodologies, which may hinder the adoption of more student-centered approaches. These factors collectively pose constraints on the effectiveness and flexibility of ESL instruction in these settings.

The Lebanese-Armenian School's ESL context justifies the need for the *Boomerang Feedback Strategy*, which offers a multi-stage model that integrates teacher, peer, and self-correction, providing repeated opportunities for learners to reflect on and revise their writing. In this context, where learners are accustomed to explicit instruction and rote memorization, introducing a structured yet interactive corrective feedback model allows for gradual movement toward learner autonomy and deeper engagement with the writing process. This context is especially significant for evaluating the efficacy of the *Boomerang Feedback Strategy*, as it allows the researcher to assess whether this multi-stage feedback model can bring about meaningful improvement even in such limited contexts.

5.4 Research instruments

To investigate the impact of the *Boomerang Feedback Strategy*, a range of research instruments was employed. These tools were carefully selected to capture both quantitative and qualitative data related to learners' English proficiency, writing performance, motivation, and perceptions of the different types of WCF. The instruments included an English language level test, a motivation scale, writing prompts, a perception survey with short-answer questions, and follow-up focus group interviews.

5.4.1 English level test

The free, online English Level Test from the British Council (see Appendix A) was used as a pre-treatmet tool to assess the participants' proficiency in the English language. Learners are required sign in to an account on provided computers. This test is designed to assess understanding of English grammar, vocabulary and phrasing. The test places learners at levels A1, A2, B1, B2,

C1, and C2 referring to the Common European Framework of Reference for Languages (CEFR), which is a widely used standard for measuring language proficiency. A1 is a basic level where learners can understand and use familiar everyday expressions and very basic phrases. They are able to an introduce themselves and ask and answer simple questions if the other person speaks slowly and clearly. A2 level is considered elementary, where learners can understand sentences and frequently use expressions related to basic personal and family information, shopping, local geography, and employment. Learners at this level can communicate in simple, routine tasks. B1 and B2 are considered intermediate and upper intermediate levels and C1 and C2 are advanced. All the participants in this study fall under A1 or A2 level.

The test is in the format of multiple choice and learners will have a choice of three possible answers. They will be required to read each question carefully and select the answer that they think is correct. At the end of the test, learners will be given an approximate indication of the English level they are working towards. Each of the 30 multiple-choice questions comprises two parts. The first part is the level check followed by a second section where learners have to indicate how sure they are about their answer to part A -certain, fairly sure, or not sure. Learners must complete both parts to progress to the next question. The test is time-limited. Upon completion, the system recommends courses that can be taken with the British Council based on the score.

5.4.2 Biodata and language background questionnaire

All participants were asked to complete a biodata and language background questionnaire. The information collected also shed light on the parents' language backgrounds as well as ethnicity. Data on the age the children had started learning English as a second language, whether they had lived abroad in an English-speaking country, languages they speak during extracurricular

activities, and languages spoken at home and school were gathered to form a near-complete image of the participants' language profiles. Table 2 depicts the form used to collect the biodata information.

Table 5.3

Student Biodata and Language Background Questionnaire

<table>
<tr><td>NAME</td><td colspan="3"></td><td>FAMILY</td><td colspan="3"></td></tr>
<tr><td rowspan="2">DATE OF BIRTH</td><td>DAY</td><td>MONTH</td><td>YEAR</td><td rowspan="2">ENGLISH LANGUAGE BACKGROUND</td><td colspan="3" rowspan="2">STARTED LEARNING ENGLISH-CLASS LEVEL:</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td rowspan="2">NATIONALITY</td><td colspan="3">1:</td><td rowspan="2">SPOKEN LANGUAGES</td><td>NATIVE</td><td>SECOND</td><td>FOREIGN</td></tr>
<tr><td colspan="3">2:</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">PARENTS' NATIVE LANGUAGE</td><td colspan="2">MOTHER</td><td>FATHER</td><td rowspan="2">LIVED ABROAD IN NATIVE ENGLISH COUNTRY</td><td colspan="2">YES</td><td>NO</td></tr>
<tr><td colspan="2"></td><td></td><td colspan="3">FOR _____ MONTHS/YEARS</td></tr>
<tr><td rowspan="2">EXTRA CLASSES IN ENGLISH</td><td colspan="2">YES</td><td>NO</td><td rowspan="2">EXTRACURRICULAR ACTIVITIES IN ENGLISH</td><td colspan="2">YES</td><td>NO</td></tr>
<tr><td colspan="3">FOR _____MONTHS/YEARS</td><td colspan="3">FOR _____ MONTHS/YEARS</td></tr>
<tr><td>LANGUAGES SPOKEN WITH FRIENDS</td><td colspan="3"></td><td>LANGUAGES SPOKEN AT SCHOOL</td><td colspan="3"></td></tr>
</table>

5.4.3 The SOS motivation scale

The instrument used to measure development in motivation is an adaptation of the Student Opinion Scale (SOS) with the permission of the authors (Sundre & Moore, 2002) (Appendix B). It is a scale that measures student motivation, importance, and effort. The SOS is based on an earlier unidimensional measure of examinee motivation, the Motivation Questionnaire, pioneered by Wolf and Smith (1993). The measure has gained empirical support for internal validity of score inferences through more than 20 years of use in research and practical applications. The SOS has been used in various testing contexts. Wolf and Smith (1995) published the first version of the motivation scale, which consisted of 8 items and was considered one-dimensional. In 1999, Donna

Sundre revised the original scale by adding two items and modifying the wording of others in an effort to further delineate and to strengthen the two factors. Sundre (1999) consistently found that the original eight items were represented by two factors and that these dimensions appeared to represent perception of importance of the test (five items) and amount of effort exerted on the test (three items).

The SOS scale was adapted for this study by only changing the word "tests" to "writing activities" (Appendix B). The revised and adapted SOS is composed of 10 items using a 5-point Likert scale ranging from 1 "Strongly Disagree" to 5 "Strongly Agree." Responses to items are summed to form three scores: Importance given to writing activities, Effort invested in writing activities, Total Motivation (the addition of Importance and Effort). Four of the ten items (3, 4, 7, and 9) should be reverse-coded prior to scoring and analysis. The Total Motivation score is determined by adding responses to all 10 items. Table 3 presents the mapping of items to the theoretical dimensions of Effort and Importance.

Table 5.4

Test Blueprint for the Student Opinion Scale

Subscale	Items
Importance *Definition: How important doing well on the writing activities is to the student*	1. Doing well on these writing activities was important to me. 3. I am not curious about how I did on these writing activities relative to others. 4. I am not concerned about the scores I receive on these writing activities. 5. These were important writing activities to me. 8. I would like to know how well I did on these writing activities.
Effort *Definition: The reported level of effort and persistence expended toward the completion of the writing activities*	2. I engaged in good effort throughout these writing activities. 6. I gave my best effort on these writing activities. 7. While taking these activities, I could have worked harder on them.

Subscale	Items
	9. I did not give these activites my full attention while completing them. 10. While taking these activities, I was able to persist their completion.

The SOS was chosen to measure motivation because students' motivation draws from the expectancy-value model of achievement goal motivation theory (Eccles et al., 1983; Pintrich, 1989; Pintrich & DeGroot, 1990). As Pintrich and De Groot (1990) concluded, "students need to have both the 'will' and the 'skill' to be successful in classrooms" (p.38). Clearly, students with the skill but lacking the will to carefully complete assessment tasks will produce foul underestimates of student abilities. Expectancy-value theorists uphold that motivation to perform well can be defined by three factors: expectancy for success, value of the task, and affect. A person's expectancy for success is integrated in their estimation of ability to be successful on the task (i.e., competence). The value of the task involves a person's perception that this task is important, interesting, or useful. The third factor, affect, captures how a person feels about a task. When teachers provide opportunities for learners to be actively involved in the provision of WCF, learners will have a more precise expectancy for success. Furthermore, comparisons of these scores across pre and post conditions and in relation to actual performances can enhance data interpretation. The SOS was developed to fill this need, and as later described, can be used for experimental studies in which varying motivational strategies are manipulated and compared (Sundre,1999).

5.4.4 Writing prompts

To assess the development of L2 writing as well as error reduction, three writing prompts were used at pre, post, and delayed- post intervention times. This allowed for longitudinal observation of writing improvement and error reduction. The design also enabled the tracking of both short-term gains and retention of learning over time. The prompts elicited one-paragraph descriptive written composition. The choice fell on descriptive genre because the first writing lesson they cover at this level is descriptive, following the school curriculum and the grammar and writing book they use. Participants were asked to write a short paragraph for the prompt in class and in thirty minutes. The topics were on children's best friends, favourite person in their family, and favourite character from a book or a movie, consecutively. The prompts were technically similar and induced the same kind of writing but for a different topic, so as to avoid task-repetition effects. They were constructed to elicit use of the simple present form of verbs, which aligns with the level of the learners.

Taking into consideration the learners' low proficiency, and to support learners' writing fluency and minimize lexical frustration, each prompt included vocabulary cues related to adjectives to describe physical appearance and personality traits. Such scaffolding is particularly helpful for developing writers who struggle with lexical retrieval during timed tasks (Nation, 2001). These topics were selected because they reflect familiar and relatable contexts for young learners, facilitating personal expression. Familiarity with the content enables students to focus more on language use and less on idea generation, which is crucial for low-proficiency learners (Cumming, 2001). Table 5.5 below illustrates the topics:

Table 5.5

Writing Prompts for Descriptive Paragraphs

Pre-test Who is your best friend? Write a paragraph about your best friend. Describe your friend and mention what makes them special. Talk about the things you usually enjoy doing together and the places you like to go. Describe the activities you do together. What are the things you have in common? How are the two of you different from each other?
Post-test Who is your favorite person in your family? Write a paragraph about a person in your family who is special to you. What makes this family member unique and different from others? What are this person's most important character traits? What do you most love about them, and what annoys you the most about them? Talk about the things you have in common and the activities you do together. Adjectives to describe character traits: honest, brave, loyal, leader, confidents, shy, friendly, strong, gentle, humorous, helpful…
Delayed Post-test Who is your favorite character from a book or a movie? Write a paragraph about your favorite character. Describe the outer appearance and talk about what this character does, what makes him/her special, and why you admire this character. Examples of outer appearance: body shape- (height, weight, type) tall, short, rounded, fat, slim… facial features- (eyes, mouth, cheeks, hair, nose) big, small, round, long, short, brown, blond, blue, wide…

5.4.5 Perception survey

To explore learners' perceptions of and attitudes towards the *Boomerang Feedback Strategy*, specifically peer and self-correction, a perception survey was administered to the experimental SE and PE groups. The experimental educator group (ED) did not complete the survey because they were not involved in peer and self-correction. The survey aimed to gather both quantitative and qualitative data on learners' attitudes toward various corrective feedback types, including teacher correction compared to peer/self-correction and the *Boomerang Feedback Strategy.*

To enhance the validity of the findings, the perception survey was adapted from Wu et al. (2021) and piloted with a small group to ensure clarity and relevance. Wu et al. (2021) initially designed the instrument as an online questionnaire to investigate students' views of corrective feedback in the Chinese context. Their instrument served as a solid foundation for exploring learners' attitudes toward different types of WCF. For the purposes of this study, the original items were modified to align with the *Boomerang Feedback Strategy* and the specific context of ESL writing instruction. Two versions of the survey were created to target the two experimental groups, SE and PE with the only difference being the substitution of the term *self* for *peer* to accurately reflect the type of correction each group provided. The adaptation ensured contextual relevance while maintaining the structure and intent of the original survey, thus ensuring a degree of construct validity. The adapted instrument consists of 18 Likert-scale items rated from 1 (Not at all) to 5 (Extremely) and targeted participants' perceptions on the usefulness of the intervention received, its impact on writing improvement, and its impact on understanding of errors. In addition to the scaled items, three open-ended short-answer questions were included to gain deeper insight into students' reflective thoughts and preferences. These short-answer questions were thematically aligned with the survey items to allow for triangulation and to help verify the authenticity and consistency of student responses. Furthermore, the short-answer questions allowed learners to express their opinions in their own words, offering richer context to the quantitative results. The young learners were informed that the participation in this survey was entirely voluntary, and the responses were kept confidential and anonymous. The use of both closed- and open-ended questions also helped mitigate the limitations of self-reported data bias. This mixed-design survey was chosen to obtain a more holistic understanding of how learners experienced and evaluated the corrective feedback interventions (see Appendix C).

5.4.6 Focus group interviews

To gain a deeper understanding of learners' experiences with the *Boomerang Feedback Strategy*, and complementary to the survey findings, focus group interviews were conducted with participants from the self-correction and peer-correction groups. These interviews aimed to capture students' nuanced perceptions and preferences toward the different types of WCF and the *Boomerang Feedback Strategy*. Participants were assured of confidentiality, and after attaining their informed consent, separate focus group interview sessions were held for each experimental group adding up to eight in total. Each group comprised of five to six learners depending on the class and school.

These sessions aimed to encourage open dialogue between participants who had shared similar WCF experiences. The interview format was semi-structured allowing for consistency across groups and flexibility to explore emerging themes. It is worth noting that there were eight interview questions (Appendices E, F, G, H, I, J, K, L) which were thematically aligned with items on the perception survey. This purpose of this alignment was to enhance the validity of the findings by triangulating data across instruments and to observe whether the young learners would express similar views in a group discussion setting compared to when they responded to the survey privately. This approach also helped determine the consistency of learners' attitudes, especially when influenced by peer presence. The focus group questions explored learners' preferences between direct and indirect feedback, their views on focused error correction, and their likes and dislikes regarding each feedback method received. Participants were also encouraged to reflect on how the different feedback strategies influenced their improvement in writing.

5.5 Teaching materials

Two types of teaching materials were used for the experimental intervention. The first was the school's grammar and writing textbook, *Scott Foresman Reading Street Level 5 Student Book* by Pearson Education. The second was a set of three writing exercise packs prepared by the researcher for practice and provision of WCF.

5.5.1 The *Scotts Foresman* writing and grammar textbook

The Scotts Foresman writing and grammar textbook, which was a part of the core literacy curriculum, was used for drilling and practicing grammar rules. First, explicit grammar instruction was delivered twice in each class on the selected L2 grammatical structures. The selected L2 features were articles, prepositions, 3rd person singular, subject drop and verb drop. These grammar components had been introduced to learners earlier and were progressively developed in complexity over the years from grade 1 to grade 5. After each explicit lesson, learners were asked to complete exercises for practice. The relevant exercises were photocopied from the textbook for research purposes to ensure consistency across classrooms.

The Grammar and Writing Handbook is part of the *Reading Street* program. It integrates reading, vocabulary, comprehension, and writing instruction, and provides a rich context for applying grammar in authentic written tasks. The exercises in the grammar book included sentence completion tasks, multiple choice questions, matching fragments to form sentences, fill-in-the-blanks, error correction, sentence rewriting, adding the correct form of verbs and guided sentence construction. These exercises are contextualized within short reading passages of thematic units, helping students apply grammar rules in meaningful contexts. These grammar exercises served as a basis for the upcoming writing tasks, allowing students to review grammar rules before applying

them in writing. Using the same book across all three schools and four classrooms ensured consistency in instructional content and practice essential for the reliability of the research intervention.

5.5.2 Writing activity packs

The second teaching material were the writing activity packs prepared by the researcher. These were three guided and semi-guided writing exercise packs designed to target the selected L2 grammatical and written discourse elements under investigation. Their primary purpose was to provide learners with opportunities to practice receiving and providing feedback following the *Boomerang Feedback Strategy*. Participants in all groups completed these 3 exercise packs consecutively after the writing pre-test session. Each pack included a variety of scaffolded writing tasks aimed at reinforcing grammar and promoting paragraph-level writing development. These packs comprised exercises such as writing for a picture with vocabulary cues. Here again, the question directed the learners to write in the simple present test to talk about habitual actions and routines, for example, writing a paragraph to describe what Maria does every morning before going to school. Another exercise was completing sentences and a third exercise required students to fill in the blanks to complete a paragraph. A final exercise prompted students to write original sentences using target words. All three packs followed the same format and targeted the same L2 structures, differing only in topic. These materials were tailored to the learners' linguistic level and aligned with the L2 features studied and grammar instruction delivered in class. Additionally, they served as the primary context for applying the corrective feedback strategies being examined in the study (see Appendix D).

5.6 Procedures

This section outlines the step-by-step process through which data were collected over the course of the study. First, the pilot study was carried out with a small group of learners from a different school not participating in the study. This was to test the clarity, timing, and effectiveness of the research tools, including the perception survey and writing activity packs. Feedback from this phase helped refine the materials for the main study.

5.6.1 The pilot study

The piloting of the corrective feedback strategy as well as the instruments was conducted in July of the year 2022 in Beirut, Lebanon. A group of six learners from an Armenian school in Beirut were summoned to test the instruments. This specific school is not a part of the initial study conducted in October of the same year in three Armenian sister schools in Beirut. The learners were 2 male and 4 female grade four students going on to grade five. They were between the ages of 9 and 10. Upon checking their final school report cards, it was deduced that one learner was a high achiever in English class and one was less proficient than the other five.

One of the aspects under study for the piloting was the intelligibility of the English language used to construct the instruments. The researcher wanted to estimate the level of learner understanding of the questions and phrases presented in the instruments, and if the items needed rephrasing. Also, there was a need to inquire whether or not the instruments needed to be translated to the Armenian language to ensure thorough understanding of the questions. Furthermore, the perception survey and the focus-group questions needed to be tested for comprehensibility, clarity, and overlapping.

Another aim was to test for the level of difficulty of the writing prompts and the exercises presented in the writing packs to see if these exercises were clear, appropriately challenging for the age group under study, and whether they contained any vague terms. In addition, the researcher anticipated detecting common trends in the grammatical errors made by the learners. This information was important in order to formulate the final decision with respect to the choice of the grammatical structures for which focused corrective feedback would be given to learners in the actual study.

The first step was piloting the Student Opinion Scale (SOS), which measures learner motivation. The learners were read the instructions and the Likert scale was explained to them. They found no difficulty in filling up the form. A question received from learners was the meaning of the phrase "engaged in good effort" in question 2*: I engaged in good effort throughout these writing tasks*. The phrase was explained to them in Armenian. Then the researcher rephrased the question using the word put, and the learners agreed that they now were able to understand. Accordingly, the instrument was updated by replacing the word *engaged* with *put* in hence ending up with- *I put in good effort throughout these writing tasks*. Completing the rest of the SOS instrument went on smoothly with no difficulties on the part of the learners. It took them around eight minutes to complete it.

The next step was to check the learners' background in grammar. They were asked what features were covered over the academic year 2021-2022, and the researcher went over their grammar notebooks. In their previous academic year (Grade 4) the learners had covered subject-verb agreement, complete sentences, fragments, and run-ons, in addition to the three verb tenses, articles, and prepositions. The researcher conducted a quick review of some the above-mentioned

features with example exercises. Learners showed satisfactory knowledge of the topics to varying degrees.

The step that followed was testing the three writing prompts. Learners were asked to read the prompts out loud in turns, and they were guided to ask questions when they faced difficulty understanding what was required of them. In general, no challenges were observed with the prompts. With respect to prompts two and three, learners wanted to know what is meant by *outer appearance* and the term *characteristics*. Examples of adjectives to describe outer appearance were added to the prompt. It is worth mentioning that adjectives are not a part of the focused corrective feedback; therefore, providing learners with examples would not affect the outcome of the study. Moreover, the term *characteristics* was replaced with *character traits* and example adjectives were added to the prompt to guide the learners. In the second prompt, learners asked for a clarification of the word *frustrates- what frustrates you the most about them*? The word was replaced with *annoys*.

To finish this step, the learners were presented with the first prompt (pretest) to write a paragraph for. The prompt was read to them. They had no questions except for the meaning of *hook*. It is also worth mentioning that paragraph structure is not evaluated for this study. It took them more or less fifteen minutes to complete the writing task. One participant had only one grammatical error while others made between six and thirteen mistakes.

The following step was evaluating the writing packs. All four questions in the first pack were read to the learners. Then, learners were asked to read again on their own and ask questions if they needed more clarification. This process took around 10 minutes after which learners were asked to start writing. The second and third packs were free from ambiguity. With respect to the first writing pack and with exercise D about filling in the blanks to complete a paragraph, learners

were unable to continue the second sentence. The problematic sentence had no subject and was constructed as such: "_____ a personal trainer…". The sentence was restated as: "Bob _____ a personal trainer…". Moreover, learners were not well acquainted with gym equipment and could not name them. A word bank was provided to them and added to the exercise. Again, this addition is not anticipated to affect the research outcomes as spelling and lexis are not evaluated, but rather how these words are used in correct sentences and appropriate verb tenses are what corrective feedback is provided for.

Regarding the activities in the writing packs, question A which is about writing a descriptive paragraph for a picture took the learners around 8 minutes to complete. They expressed that this is the easiest compared to the other three exercises. Question B which is about writing sentences for words took them around 5 minutes with no expressed challenges. Learners found question C about continuing sentences moderately challenging, and they completed it in about 7 minutes. Learners found question D especially more challenging than the other three because they needed to complete a paragraph and had to add parts to come up with a logical, comprehensible story. This exercise was completed in more or less 10 minutes. Added up, the writing pack took the learners 40 minutes to complete. In a heterogeneous classroom setting, and with a wider range of varied competencies, the initially suggested 50 minutes to complete the pack was deemed acceptable.

The fifth step was to detect trends and patterns in grammatical error types. There were subject-verb agreement errors, homophone misuse (*there-their, then-than*), run-ons, dropped subjects, dropped verbs and fragments, article and preposition errors. In addition to these, verb-tense consistency was observed to be problematic. From the above mentioned, corrective feedback

was provided for subject-verb agreement and the use of the present tense, dropped subjects, dropped verbs, article and preposition errors.

In the subsequent step, the proposed corrective feedback strategy, the *Boomerang Feedback Strategy* (see section 5.6.4 for further details), was tested for leaks. First, the researcher corrected the writing packs by providing indirect-focused corrective feedback. Next, two learners were asked to self-correct the underlined errors while the other four paired up to do peer-correction. Learners were given about 7-10 minutes to go over and attempt to correct the educator's indirect-focused corrective feedback. The process was very smooth. With respect to peer correction, there was very good interaction between the pairs. Learners tried to correct and justify their answers by going back to grammar rules and trying to remember them. They used their mother tongue, Armenian, to converse with each other. While observing, it was noticed that some errors were accurately corrected like the case of articles, and the use of the present tense in subject-verb agreement. Some errors were adjusted incorrectly like the case of prepositions which took the biggest part of their discussions. Learners were mostly unable to accurately correct dropped verbs and dropped subjects.

Arriving to step seven, the perception-preference scale was tested. No issues were observed with section A when filling the Student Linguistic Biodata Portfolio. In section B, pertaining to learner preferences for written corrective feedback in the classroom, learners were asked about the extent to which they liked or disliked the different types of feedback. They had to use a 5-level Likert scale ranging from not at all to extremely. Learners found the term somewhat ambiguous and asked clarification. The term was replaced by a little (see Appendix C for the final version). In question number 5, "The teacher's corrective feedback helped me improve my writing.", learners asked which type of feedback is meant here, direct or indirect? With respect to question

7, “The Boomerang Strategy of corrective feedback helped me improve my writing.”, learners asked for clarification, and the procedure was revised again. In question 8, “Correcting only some of the errors (focused) helped me improve my writing.”, they wanted to fully comprehend what is meant by *focused*. This was also clarified with examples. It is worth mentioning that during the process, the learners did not notice that the feedback was focused until when they were asked about it. As for the short questions section at the end of the perception scale, a fifth question asking “What advice you would give teachers?” was added because learners showed active interest in the topic.

After having meticulously studied all the items in the perception scale, for ease of analysis of results the researcher came up with three broad themes for the types of written corrective feedback as such: usefulness, helps improve writing, and elicits better understanding of errors. Six questions were introduced for each theme to arrive to a near-complete understanding of learner preferences (see Appendix C for the final version).

To conclude the section, it can be commissioned that learners in the pilot study highly enjoyed the *Boomerang Feedback Strategy*. They especially loved peer-correction. Even those who carried out self-correction, having witnessed the interaction between the learners who worked in pairs, expressed that they would rather work with peers. A very good level of active involvement with corrective feedback was observed in both groups. Learners also expressed that they very much enjoyed the *Boomerang Feedback Strategy* and would recommend it to their teachers. They also felt that they learned better with peers. The participants felt that indirect feedback was not very useful unless they got involved in efforts to correct it. They expressed that getting the final direct feedback from the educator after attempting self or peer correction was useful and helped them understand their errors.

5.6.2 The pre-treatment phase

In the next pre-treatment phase, all participants completed the online language level test developed by the British Council to identify their English proficiency and ensure homogeneity across groups. On the first day of the study, the researcher along with the class teachers escorted the participants to the respective computer rooms in the schools where they were assisted to sign in to their individual free accounts. They were given 30 minutes to complete the test questions. Upon completion of the test, the teacher and researcher recorded the score and level (A1/A2) of each participant. At this time, participants were asked to complete the linguistic biodata portfolio to understand their linguistic background and languages spoken at home.

This step was followed by a pre-writing task during the next session, where all the participants were asked to write a single descriptive paragraph in response to prompt one. This task was used to assess their initial level of grammatical accuracy in L2 writing (i.e. Time 1). All the participants were given printed prompt sheets and allotted 30 minutes to complete the task. During this time, the researcher was available to provide support, clarifying key lexical items and ensuring learners' comprehension of task-related vocabulary, while refraining from offering any assistance related to grammar or writing structure. Upon completing, the sheets were collected for evaluation.

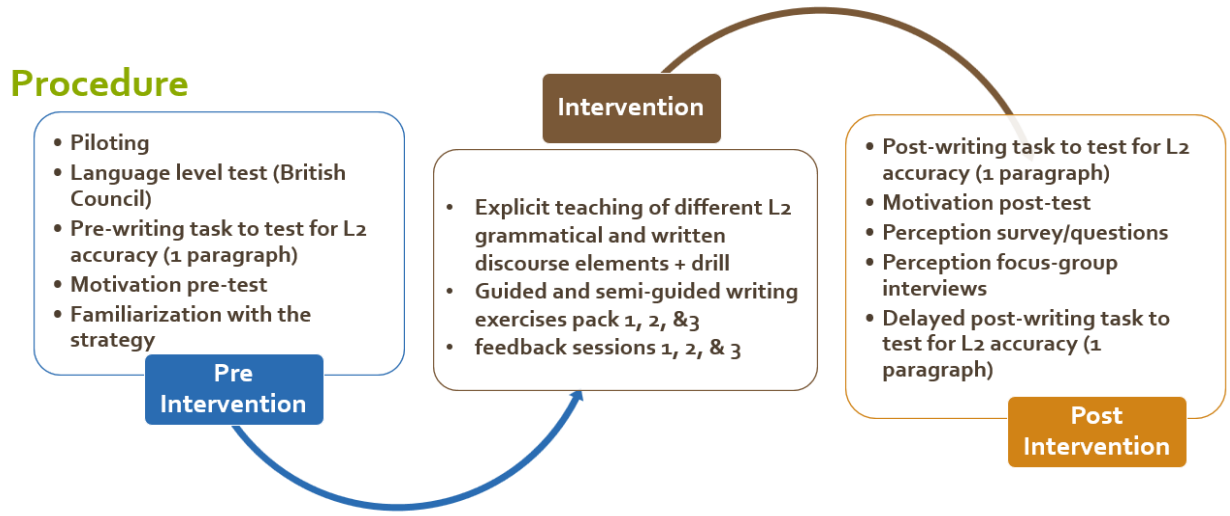
To control for affective variables, the SOS motivation pre-test was administered next. This helped measure learners' initial motivation, effort and interest levels, which would later be compared to post-treatment responses. Again, all participant completed the SOS scale which was distributed to the class, read, and explained by the researcher. Participants were allowed to ask questions for clarification. Next, the researcher read and translated each item, and learners were

allotted time to complete their answers. This process was repeated for all ten scale items. The entire process took around 15 minutes.

Finally, participants underwent a brief familiarization session to introduce the *Boomerang Feedback Strategy* (see section 5.6.4). The researcher explained the feedback cycle and modeled how learners would engage in the provision of written corrective feedback in the upcoming writing tasks. Learners were called to the board to provide WCF for sample sentences to ensure they were adequately prepared for the treatment phase. Figure 1 presents the research procedure in all three phases.

Figure 5.1

Research Procedure Across Intervention Phases



5.6.3 Teaching intervention

This section details the procedures and implementation of each treatment condition during the intervention. Before completing the three writing packs, the control group and all three experimental groups received the same explicit instruction on L2 grammatical structures over two periods. Post instruction, the researcher gave out photocopied practice exercises from the students' grammar textbook. The researcher reviewed the L2 structures under study with the learners, and together, they completed each exercise by first eliciting the answers from the learners and then providing the correct answers.

At this point, and prior to the intervention, students in each of the four classes were randomly assigned to control and three treatment groups: control (No Feedback, NF), educator feedback (ED), peer and self-feedback (SE/PE), the last three referring to the use of the *Boomerang Feedback Strategy*. Participants were randomly assigned according to their existing seating arrangement in the classrooms to minimize disruption and maintain a natural learning environment, and their names were documented to ensure consistent tracking and data collection across the intervention phases. Throughout the intervention, class teachers remained present with the researcher to assist with the implementation and ensure smooth progress.

Next, the grammar instruction was followed by guided and semi-guided writing tasks, delivered across three writing exercise packs. Each pack focused on the specific set of L2 features and required learners to apply these forms in context through structured and open-ended writing tasks. These packs were photocopied and distributed to all four groups. The researcher read and explained the exercises and allowed students 40 minutes to complete the pack. Learners were able to ask questions for clarification. After completing each writing pack, learners from the 3 experimental groups participated in feedback sessions (1, 2, and 3), during which the corrective

feedback condition specific to their group was implemented. The control group did not take part in the corrective feedback session. Instead, they moved to another class or the school's library to take part in other non-form-inclined language activities such as, watching a 20-minute animated film (The Lego Story, Crow: The Legend, Dr. DeSotto) or storytelling session with the class teacher. The research intervention phase consisted of three distinct treatment conditions, in addition to the control group. The control group wrote all three paragraphs and completed the three writing activity packs, but they did not receive any feedback from the educator. Their papers were returned without any WCF. Table 5.6 presents the treatment conditions, which are explained below:

Table 5.6

Treatment Conditions

Group 1 NF	Control: No corrective feedback
Group 2 ED	Educator WCF
Group 3 PE	Peer WCF
Group 4 SE	Self WCF

The first treatment condition was the educator (ED), whereby learners in this group received indirect focused feedback from the researcher. Upon returning their papers, learners in the first treatment condition were asked to go over the WCF without attempting to correct, simulating the typical classroom routine when receiving marked work. They were given approximately ten minutes to examine their mistakes before returning the papers. The second treatment condition was the peer correction group (PE). In this group, learners were paired with designated classmates to collaboratively review the provided indirect focused WCF by the teacher. Each pair was instructed to provide feedback to one another and attempt to correct the identified errors together. They were allowed to interact and discuss the corrections. The third treatment

condition was the Self group (SE). Learners in this group were asked to work alone and try to review their own errors guided by the educator's indirect focused WCF. All treatment conditions were given ten minutes to carry out the feedback process. Table 5.7 provides a clear map of the procedure across phases.

Table 5.7

Detailed research design

Session	Control Group: No feedback	Experimental 1: Boomerang-Educator	Experimental Group 2: Boomerang-Peer	Experimental Group3: Boomerang-Self
Pre-Treatment 0 Sep. 26-30, 2022	**Language level test and pre-treatment writing test SOS Motivation Scale**			
Treatment 1, 2 & 3 Sep. 26-30, 2022	**Explicit teaching of L2 structures + drills**			
Treatment 4 Writing Oct. 3-7, 2022	**Writing Activity Pack 1**			
Treatment 5 Feedback Session 1 Oct. 10-14, 2022	**No feedback + English activity**	**Feedback/ Boomerang-educator**	**Feedback/Boomerang-peer**	**Feedback/Boomerang-self**
Treatment 6 Writing Oct. 17-21, 2022	**Writing Activity Pack 2**			
Treatment 7 Feedback Session 2 Oct. 24-28, 2022	**No feedback + English activity**	**Feedback/ Boomerang-educator**	**Feedback/Boomerang-peer**	**Feedback/Boomerang-self**
Treatment 8 Writing Nov. 1-4, 2022	**Writing Activity Pack 3**			
Treatment 9 Feedback Session 3 Nov. 7-10, 2022	**No feedback + English activity**	**Feedback/ Boomerang-educator**	**Feedback/Boomerang-peer**	**Feedback/Boomerang-self**
Post-Treatment 10 Nov. 14-24, 2022	**Post-treatment writing test SOS Motivation Scale Perception Survey with questions Focus group interviews**			
Post-Treatment 11 Nov. 28-30, 2022	**Delayed/post-treatment writing test**			

5.6.4 The *Boomerang Feedback Strategy* sessions

This section details the procedures and implementation of the *Boomerang Feedback Strategy* in practice. The strategy was named *Boomerang* to reflect the movement of student writing and feedback provision. Writings were first submitted to the educator, then returned to the learner with indirect focused WCF for review and correction, sent back to the educator for further direct WCF feedback, and finally returned once more to the learner. This iterative exchange facilitated the practice of both providing and responding to written corrective feedback. Once participants in all 4 groups completed the first writing activity packs, the researcher collected and corrected the papers by providing indirect, focused WCF. This was done by underlining the errors in articles, third person singular, prepositions, verb-drop, and subject-drop only using a *red* pen indicative of educator WCF. Under the three different treatment conditions, these corrected papers were returned to the students usually after two days.

The first feedback session was conducted after two days from the completion of the first writing activity pack and which comprised revision of indicated errors and the attempt to correct these errors. The ED group was asked to remove all pens and pencils and revise their papers by going over the underlined errors without attempting to correct. The PE group worked in pairs in a collaborative manner and attempted to correct each other's errors. As for the SE group, each learner sat alone and attempted to correct their own errors. Both groups were provided with green pens for the WCF provision. Since the WCF was focused targeting only articles, third person singular, prepositions, verb-drop, and subject-drop, and because these specific L2 features had been explicitly reviewed and practiced in prior instructional sessions, learners were better prepared to address the errors indicated by the researcher.

Once the first feedback session was completed, the papers were again passed on to the researcher who went over the attempted error correction and WCF provision by the learners this time providing direct error correction for the features that were not corrected or where correction was not accurate. The following day, the papers were returned to the learners once more, and they were allotted eight minutes to review the direct feedback. During this final phase, learners in the peer group engaged in collaborative discussions to reflect on their correction attempts, identifying which L2 features they had successfully addressed and where their revisions had fallen short. Similarly, the learners in the self-group contemplated their correction efforts and independently evaluated their own efforts, considering areas of accurate correction as well as instances that revealed gaps in their linguistic knowledge. Finally, the papers were again returned to the researcher for final evaluation. This procedure was repeated for writing activity packs two and three each followed up by two feedback sessions. The following figures 3, 4, and 5 depict the *Boomerang Feedback Strategy* in its three treatment conditions:

Figure 5.2

Boomerang Feedback Strategy Self

Figure 5.3

Boomerang Feedback Strategy Peer

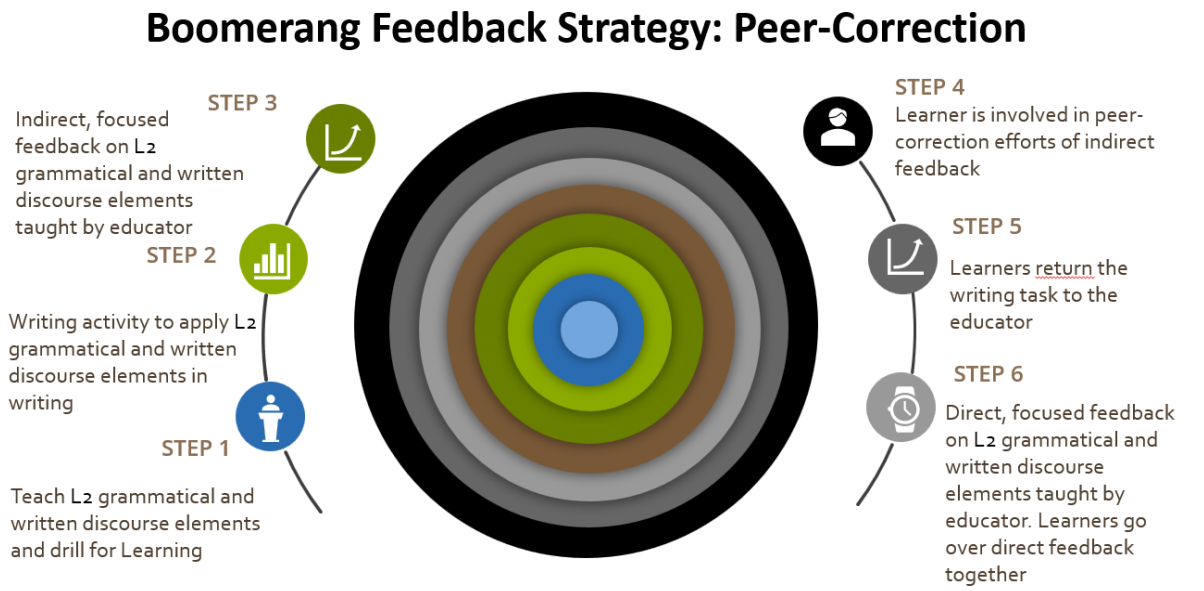
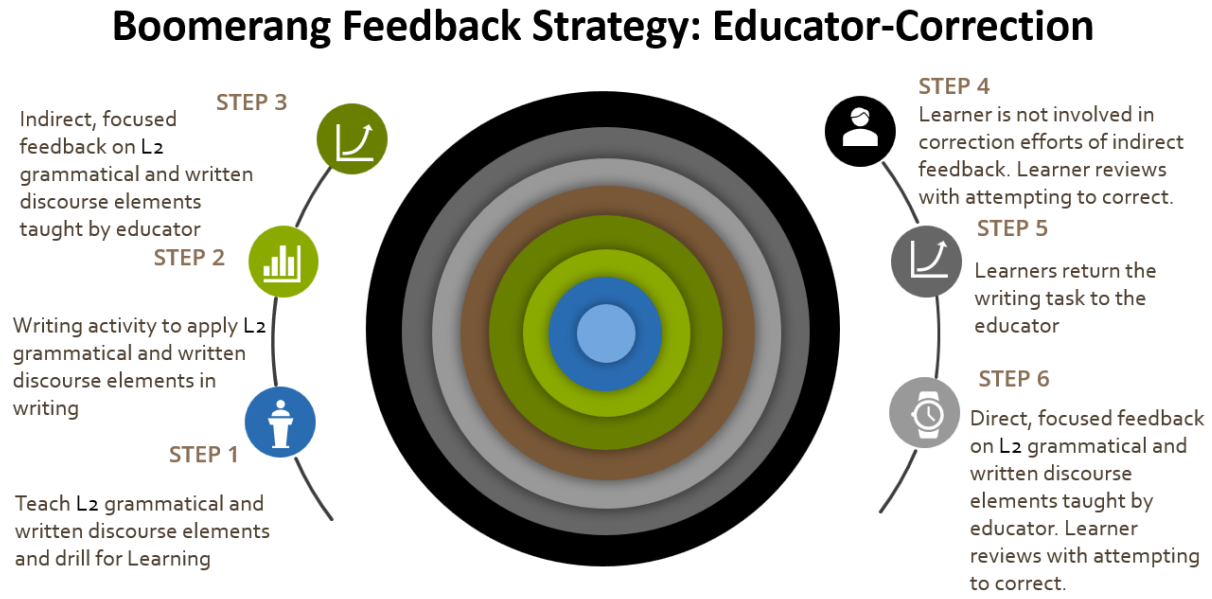


Figure 5.4

Boomerang Feedback Strategy Educator



5.6.5 The post-treatment phase

The next phase was the post-treatment phase where learners were asked to complete the post-writing task. Again, all the participants were required to write a single descriptive paragraph in response to prompt two. This task was used to assess their post-treatment level of grammatical accuracy in L2 writing. All the participants were given printed prompt sheets and allotted 30 minutes to complete the task. Similar to the pre-test, during this time, the researcher was available to provide support, clarify key lexical items and ensure learners' comprehension of task-related vocabulary, while refraining from offering any assistance related to grammar or writing structure. Upon completing, the sheets were collected for evaluation.

To study the development of the affective variables, the SOS motivation post-test was administered. This helped measure learners' development in motivation, effort, and interest levels,

to compared to pre-treatment responses. Again, all participants completed the SOS scale, which was distributed to the class, read, and explained by the researcher. Participants were allowed to ask questions for clarification. Next, the researcher read and translated each item, and learners were allotted time to complete their answers. This process was repeated for all ten scale items one by one. The entire process took around 15 minutes.

The following post treatment step was the survey and the short-answer questions which learners from the SE and PE groups took in approximately fifteen minutes. The researcher explained that the purpose of the survey was to help discover more effective ways of providing WCF to improve writing skills in English, while stressing the importance of their opinions. Each group was taken to the library separately, where the survey questions were read aloud, translated into Armenian, and clarified to ensure full comprehension. Participants responded to each item individually following its explanation and translation before proceeding to the next question. The same procedure was used for the short questions which were targeted individually and completed before moving to the next question. For the short-answer questions, learners were given the option to respond in the language of their choice be it Armenian, Arabic, or English. While the majority chose to answer in English, three participants opted to respond in Armenian.

The following post treatment step was the focus group interviews. These interviews took place during school hours, in a quiet classroom or the library. Each focus group interview lasted for about ten minutes. Most learners actively engaged in the discussions sharing thoughtful responses in Armenian and English as well. The questions were first asked in English and then again in Armenian. The sessions were video-recorded and later translated and transcribed (see Appendices E, F, G, H, I, J, K, L) for thematic analysis, which allowed for the identification of recurring patterns and divergences in student perspectives. Since the researcher was also the

facilitator for the writing instruction class, the students were at ease during the interview sessions as rapport had already been established. They were also reassured that their identities would not be disclosed in reporting the study and that they were permitted to express themselves in Armenian, which is their L1 or Arabic, or English if they were more comfortable in doing so. In fact, the researcher used Armenian during the interviews when she felt that the students were not at ease in expressing their views, or did not understand the question. This was done to encourage them to be more open in expressing their thoughts. However, it needs to be mentioned here that despite their low proficiency and lack of fluency in English, many students made an attempt to respond in English.

The final step in the data collection procedure was the delayed-post writing task. Three weeks after the conclusion of the research study, a delayed post-writing task was administered to assess retention and longer-term effects of the intervention. The learners were asked to complete the delayed-post writing task. Again, all the participants were required to write a single descriptive paragraph in response to prompt three. This task was used to assess their delayed post-treatment level of grammatical accuracy in L2 writing. The three-week interval was chosen to allow sufficient time for potential forgetting to occur, thus offering a more reliable indication of whether the feedback and instruction had lasting impact. This task mirrored the format and conditions of the pre- and post-writing assessments to ensure consistency. All the participants were given printed prompt sheets and allotted 30 minutes to complete the task. As in previous writing sessions, the researcher was available to provide support, clarify key lexical items and ensure learners' comprehension of task-related vocabulary, while refraining from offering any assistance related to grammar or writing structure. Upon completion, the responses were collected for evaluation and comparative analysis with earlier writing samples to determine delayed learning outcomes.

5.7 Data Analysis

This section presents the procedures used to analyze the data gathered throughout the study in order to examine the impact of the intervention on learners' L2 accuracy in writing, development of interest, effort, and motivation, and perception of the types of WCF. Data were collected from 96 participants in the three experimental conditions in addition to the control group in order to explore the effect of the different types of feedback provision- Peer (PE), Self (SE), and Educator (ED) at pre, post, and delayed post intervention conditions as well as with the no feedback control group (NF). An overview of the research questions in this study, the measures used to assess the dependent variables as well as the methods of data analysis are given in Table 5.8:

Table 5.8

Data analysis framework

Research Questions	Instruments	Data Analysis
What effect does the type of written corrective feedback have on young ESL learners' accuracy in writing?	3 written compositions in response to the 3 writing prompts at pre-, post- and delayed post-intervention data collection times.	Percentage of each type of error in relation to number of words produced in each written composition. Non-parametric Kruskal-Wallis tests and post-hoc comparisons. Non-parametric Wilcoxon rank tests.
What effect does the Boomerang Feedback Strategy have on young ESL learners' motivation to engage in the writing tasks?	SOS motivation scale	ANOVAs Bonferroni post hoc comparisons Paired sample t-tests
What are young ESL learners' preferences for different types of written corrective feedback, and what are their attitudes towards the Boomerang Feedback Strategy?	Perception Survey Focus group interviews	Translation and transcription of interviews Independent samples t-tests Paired samples t-tests Coding and thematic analysis

The first research question explored the effect of the written corrective feedback types on error reduction among and within groups across three data collection periods. To measure L2 accuracy, errors were counted against the total number of words produced in writing. An additional rater scored the data to ensure inter-rater reliability, which was achieved through discussions and agreement between the two raters. Normality of data distribution was tested using the Shapiro-Wilk test, which indicated that the data did not follow a normal distribution. Consequently, non-parametric statistical tests were employed including Kruskal-Wallis and Wilcoxon rank tests to assess the impact of time and of the different types of WCF employed on learners' total number of words written in addition to percentage of errors in articles, third person singular, prepositions, verb-drop, and subject-drop and overall percentage of errors across three-time periods (i.e. the three compositions written by students over the course of 11 weeks). Effect sizes were also calculated to determine the strength of the observed differences. All analyses were conducted using *Jamovi* 2.6.26 software.

The second research question explored the effect of the type of written corrective feedback on young learners' motivation to engage in the writing tasks. The SOS (www.jmu.edu/assessment/resources/Overview.ht+m) was used to study the development of the importance given, the effort invested, and overall motivation towards the writing tasks from pre to post treatment among and within the four groups across the two data collection periods. To obtain the three scores corresponding to the subscales, learners' responses to the SOS questionnaire items were analyzed using a 1 to 5 Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). Four items, two per subscale, are negatively worded and are therefore reverse scored prior to summing the corresponding items to create the Effort and Importance subscale scores. The Importance scale, derived by summing responses to items 1, 3, 4,

5, and 8, provides a measure of the personal relevance of the writing activities to the participant. The remaining items, 2, 6 7, 9, and 10, form the Effort scale and are designed to measure the level of effort students engaged in during the writing tasks. Scores are out of 25 in importance and effort and out of 50 in overall motivation. A Shapiro-Wilk test was carried out for all variables and the data proved to be normally distributed, so statistical analyses included ANOVAs and Post Hoc Bonferroni tests in addition to paired sample t-tests to assess the impact of time and of the different types of WCF employed on learners' motivation towards writing activities.

The third research question explored young ESL learners' preferences for different types of corrective feedback in addition to their attitudes towards the *Boomerang Feedback Strategy*. First, the quantitative data obtained from the perception survey, which used a 1–5 Likert scale, were analyzed according to the three dimensions: Usefulness, Improvement, and Error Understanding. These categories were examined in relation to the implementation of the *Boomerang Feedback Strategy*, specifically focusing on the Self-Correction (SE) and Peer-Correction (PE) groups. For each category, the mean scores of the six corresponding statements were calculated to assess participants' perceptions of the feedback process. Shapiro-Wilk normality tests were run and since the data were normally distributed, independent samples t-tests were performed to compare the scores between the SE and the PE groups in each category. Further t-tests were performed for each of the statements in each of the categories where significant differences between the two groups were observed (i.e. Improvement and Error Understanding) to explore which specific statements yielded significant differences.

To better understand young ESL learners' preferences for different types of corrective feedback and perceptions of the *Boomerang Feedback Strategy*, qualitative data from the short-

answer, open-ended questions were analyzed. The coding analysis aimed to identify patterns and themes that emerged from the data in order to gain insights into the experiences of participants.

The data obtained from the short questions were thematically analysed to explore possible reasons for the corresponding quantitative findings. The analysis process involved coding the data, categorizing it into themes, and describing the findingsDuring the coding process, the data were analyzed using both deductive and reflexive thematic analysis. This double approach allows for a flexible and nuanced analysis that is sensitive to the complexity and richness of the data. Deductive thematic analysis (DTA) followed Braun and Clarke (2006) and Hayes (2000), as some codes were pre-determined and aligned with the research questions, making this a theory-driven approach (Boyatzis, 1988). Using the DTA, the researcher set out from bottom up, taking off from theory to predictions upon which the experimental design for data collection is based.

As a supplementary step, Reflexive thematic analysis (RTA) was utilized because of its iterative and recursive nature that involves examining the data in a reflexive manner, meaning that the researcher continually reflected on their own assumptions and biases throughout the analysis. This approach helped to interpret and fully comprehend the data derived from inquiries aimed at ascertaining the underlying reasons or justifications (i.e., "why" queries). The RTA method was employed to ensure full engagement with the data, move above surface level and create themes that do not pre-exist in the set questions.

This initial stage involved reading through the data multiple times to become familiar with the content and identify initial observations and patterns. Next, initial codes were generated based on the research question and question wording. In this step, significant features, patterns, and phrases from the data were identified and labeled, which might be relevant to the research question. These initial codes were question-demarcated and involved identifying and labelling different

aspects of the data that relate to the research question or objective (DTA). Some initial codes included “self-correction,” “Boomerang Feedback Strategy,” “accuracy,” “writing improvement,”, and "peer feedback."

Next, the researchers engaged in an open coding process, where they labelled segments of the data with codes that reflected the content of each question. For example, the responses to the question two, "Would you like to do this correction activity *by yourself* or working with a peer? Why??" varied, with some participants preferring to work alone for peace and quiet or to focus better, while others preferred working with friends because it was fun or they enjoyed spending time with their friends.

Once the initial codes were derived from the open coding process, reflective-demarcated coding was used, which involves identifying and labelling different aspects of the data that relate to answers to the “why” questions where learners reflected upon whys and wherefores for their preferences. Themes emerged from the data, rather than being predetermined, and were identified through repeated readings of the data. For the self-correction data, themes emerged related to the positive impact of self-correction on learning and motivation, as well as the potential limitations of self-correction, such as the need for guidance and feedback from the educator. The peer-correction data yielded themes related to the benefits of peer feedback, such as the opportunity for collaboration and social learning, as well as potential drawbacks, including the risk of incorrect feedback and a lack of accountability.

Additional codes were derived from this step such as “collaboration”, “learning from mistakes”, “correcting mistakes”, “seeing and understanding mistakes”, "correction as a learning tool", "communication skills," and “learner involvement in corrective feedback.” The codes then were grouped into grand themes of “Self-evaluation”, “Autonomy”, “Peer correction” and

"Collaborative learning.". Based on themes, two learner profiles were created: "*Preference for self-evaluation and autonomy"* and "*Preference for peer correction and collaborative* learning". The identified themes encompass both learning styles and the type of corrective feedback provided related to learners' preferences with respect to corrective feedback. The whole process of the thematic analysis coding process is summarized in Table 5.9 below:

Table 5.9

Thematic Analysis Coding Process (Braun & Clarke 2006; Hayes, 2000)

Stage	Process	Outcome
1. Familiarization	Repeatedly read the data to become immersed in its content.	Initial observations and identification of patterns.
2. Initial Coding	Generate codes based on research questions and significant data features.	Initial codes such as "self-correction," "Boomerang Feedback Strategy," and "peer feedback."
3. Open Coding	Label data segments based on responses to specific questions.	Categorized data reflecting participant responses
4. Reflective Coding	Examine "why" questions to uncover motivations and justifications.	Emergent themes, such as benefits and limitations of self and peer correction.
5. Theme Generation	Group related codes into overarching themes.	Themes like "Self-evaluation" "Autonomy", "Peer correction" and "Collaborative learning."
6. Learner Profiles	Develop profiles based on emergent themes and patterns.	Profiles like "Preference for self-evaluation and autonomy" and "Preference for peer correction."

To gain deeper insights into learners' perceptions of the different types of WCF, eight focus-group interviews were conducted. The interviews were conducted in Armenian, the participants' native language, to ensure comfort and a more natural expression of their thoughts and perceptions. Following the data collection, the transcripts were carefully translated into English to facilitate analysis (Appendices E, F, G, H, I, J, K, L). The translation process aimed to preserve the accuracy and meaning of participants' responses, ensuring that their perspectives and insights were faithfully

represented during the thematic analysis. Similar to the data from the short questions in the perceptions questionnaire, the data collected through focus group interviews was analyzed using a thematic analysis approach. This method is particularly appropriate for focus group data as it allows for the exploration of shared experiences, perspectives, and insights among participants. The analysis also trailed the six-step framework proposed by Braun and Clarke (2006).

5.8 Ethical considerations

The study was approved by the institutional ethics committee in the schools and the university, and all necessary ethical guidelines regarding anonymity, voluntary participation, and the right to withdraw were strictly followed. Informed consent was obtained from all participants' parents or legal guardians through a signed parental consent form (Appendix M) prior to data collection.

One ethical consideration in the study was the unequal access to learning opportunities during the three-month research extension. While learners in the experimental groups were benefiting from improved L2 writing and increased awareness of written corrective feedback (WCF), the Educator group did not engage in error correction activities. Similarly, the control group received neither WCF nor participated in the feedback sessions. To address this issue and ensure fairness, the participating schools were advised to implement the *Boomerang Feedback Strategy* across all groups after the conclusion of the study. This measure aimed to provide all learners with the opportunity to experience the feedback process and develop feedback literacy.

5.9 Research gaps

Despite extensive research on WCF and as became evident in the literature review chapters, several gaps remain unaddressed. First, much of the existing literature focuses on direct or indirect feedback provided in isolation, with relatively few studies examining comprehensive, multi-stage feedback models that integrate teacher, peer, and self-feedback sequentially (Mao et al., 2024; Zhang, & Hyland, 2018). The *Boomerang Feedback Strategy*, which combines these feedback types, thus addresses a significant need for more holistic approaches that promote learner autonomy and metacognitive engagement. Second, many studies target intermediate or high-proficiency learners, with limited attention paid to the unique challenges faced by low-proficiency L2 learners, who may require tailored feedback approaches to avoid cognitive overload and foster motivation (Bitchener & Knoch, 2010; Ellis, 2009; Li et al., 2016; Zheng & Yu, 2018).

Third, there is a scarcity of research involving young learners, especially in the context of corrective feedback strategies. Young learners' cognitive and affective development stages influence how they process feedback, yet this demographic is often underrepresented in WCF research (Mao et al., 2024; Poh et. Al., 2023; Ramzi et al., 2024). Fourth, there is a lack of studies contextualized within Middle Eastern or Lebanese educational settings, which present distinctive sociocultural and linguistic factors influencing L2 writing development. Finally, the motivational and affective dimensions related to multi-stage feedback remain underexplored, particularly how repeated cycles of similar tasks influence learner attitudes and self-efficacy (Bitchener & Ferris, 2012; Bandura, 1997). This study aims to fill these gaps by implementing and evaluating a structured multi-stage WCF approach with low-proficiency young L2 learners in Lebanon, combining quantitative and qualitative methods to provide a comprehensive understanding of its effects. Chapter 6 will present the results obtained in relation to each research question.

CHAPTER 6

RESULTS

6.1 L2 accuracy

The first research question explored development of L2 accuracy (measured in terms of error reduction) in the young learners' written productions. More specifically, the effect of the *Boomerang Feedback Strategy* on L2 error reduction at pre, post, and delayed post intervention conditions was analysed. The variables studied included total number of words written, articles, third person singular, prepositions, verb-drop, and subject-drop as well as overall percentage of errors in the learners' L2 writing across the three-time periods.

6.1.1 Total Number of Words Produced

Before examining error reduction for each L2 structure under study as well as total percentage of errors, total number of words produced were calculated to accurately compute the percentage of errors as per number of words in each written composition. The group descriptives for total number of words produced across the three data collection instances is illustrated in Table 6.1, indicating an increasing tendency in all groups from PRE to POST tests and in two of the groups from POST to DELAYED tests, with no remarkable differences observed between the groups. It is worth noting that the SE group shows the highest increase in the total number of words produced, and the ED group shows the least increase between PRE to DELAYED tests. Figure 6.1 illustrates the tendencies in each group.

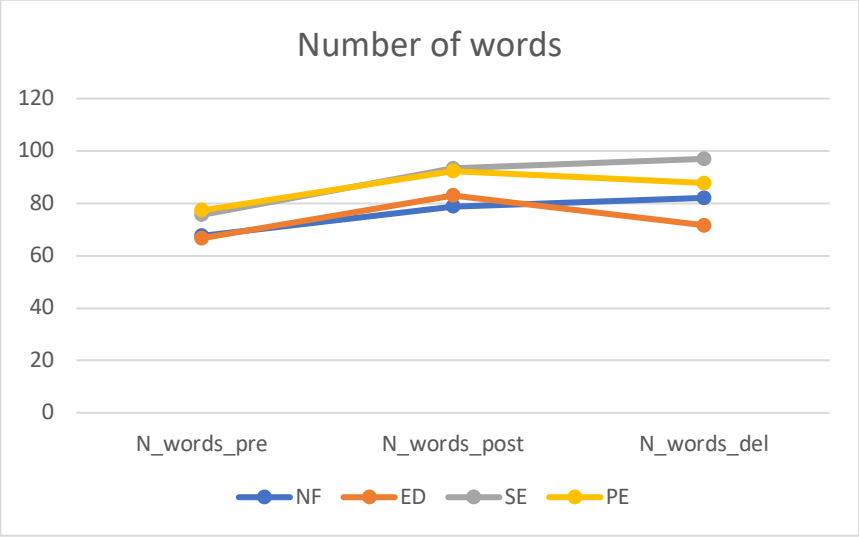
Table 6.1

Descriptive results for Number of words produced

	Group	N	Mean	SD	SE
Pre-Number of words	NF	22	67.6	26.0	5.54
	ED	23	66.7	26.7	5.56
	SE	25	75.6	23.2	4.64
	PE	26	77.3	31.8	6.24
Post-Number of words	NF	22	78.8	30.7	6.54
	ED	23	83.0	24.3	5.06
	SE	25	93.4	28.2	5.63
	PE	26	92.3	34.4	6.74
Del_Number of words	NF	22	82.1	36.0	7.67
	ED	23	71.6	23.7	4.93
	SE	25	97.0	42.6	8.52
	PE	26	87.7	24.3	4.77

Figure 6.1

Number of words produced in each group.



A Shapiro-Wilk test was run to test the distribution of the data. As can be seen in Table 6.2, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.2

Normality Test (Shapiro-Wilk)

	W	p
Pre-Number of words	0.961	0.006
Post-Number of words	0.965	0.011
Del-Number of words	0.909	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis non-parametric test was run to compare the mean number of words between groups at each data collection time. The results in Table 6.3 indicate non-significant differences between groups in number of words produced at PRE-test $\chi 2(2.97)$, $p = .396$, at POST-test $\chi 2(4.19)$, $p = .241$, and at DELAYED-test $\chi 2(6.65)$, $p = .084$. Figure 6.2 displays the number of words in each group at each data collection time.

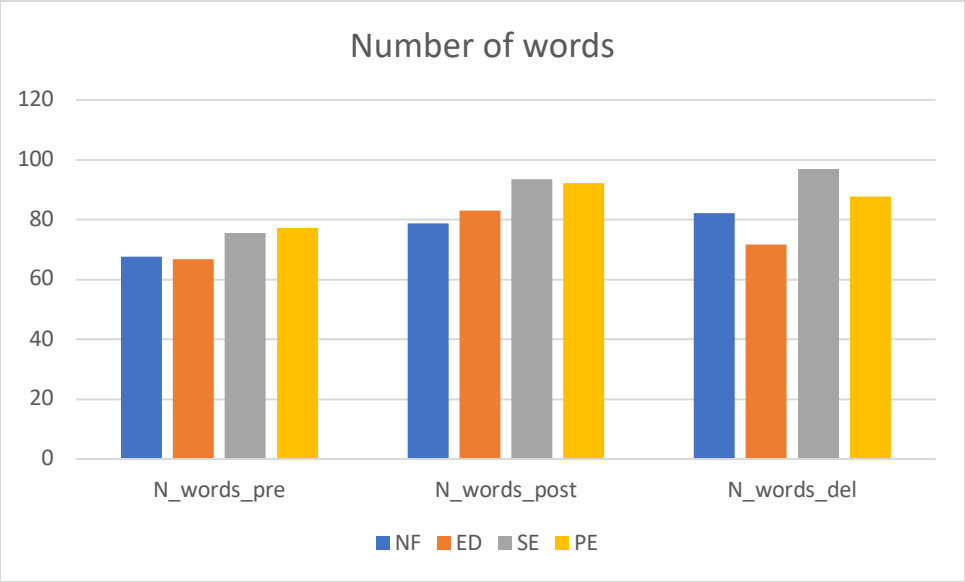
Table 6.3

Kruskal-Wallis Number of words produced

	χ^2	df	p	ε^2
Pre-Number of words	2.97	3	0.396	0.0313
Post-Number of words	4.19	3	0.241	0.0441
Del-Number of words	6.65	3	0.084	0.0700

Figure 6.2

Number of words produced by each group at each data collection time.



A Wilcoxon test was conducted within each group to evaluate the effect of time in the number of words produced across the three data collection times. The Wilcoxon test for the NF group presented in Table 6.4 showed a statistically very significant increase in the number of words produced from PRE to POST test, $p< 0.001$, and from PRE to DELAYED, $p=0.017$, but not from POST to DELAYED, $p= 0.78$ with the effect size (eta squared statistics), as measured by Cohen's d (0.51) indicating a medium effect from PRE to POST test and Cohen's d (0.36), indicating a small effect from PRE to DELAYED test. Figure 6.3 illustrates the time differences in number of words in the NF group.

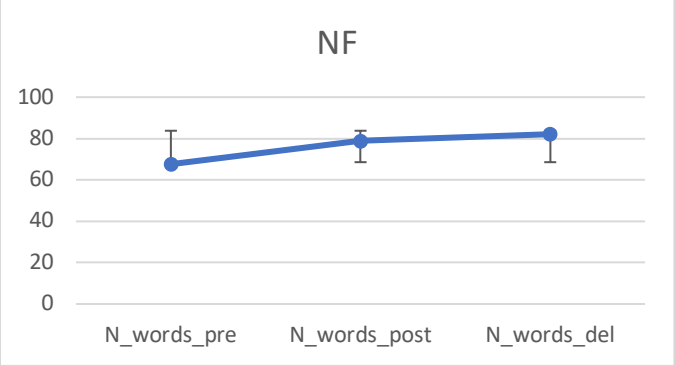
Table 6.4

Wilcoxon W Test NF Group Number of Words Produced

			Statistic	p	Mean difference	SE difference	Effect Size
Pre-Number of words	Post-Number of words	Wilcoxon W	415	< .001	-14.00	3.89	-0.5149
Post-Number of words	Del-Number of words	Wilcoxon W	861 [a]	0.787	1.50	4.77	0.0417
Pre-Number of words	Del-Number of words	Wilcoxon W	525 [a]	0.017	-11.50	4.58	-0.3654

Figure 6.3

Number of words at the three data collection times in the NF group



The Wilcoxon test for the ED group is presented in Table 6.5 and shows a statistically very significant increase in the number of words produced from PRE to POST test, p= 0.001 but a non-significant decrease from POST to DELAYED, p= 0.188 and a non-significant development from PRE to DELAYED, p= 0.081. The effect size (eta squared statistics), as measured by Cohen's d (-

0.530) indicates a medium effect from PRE to POST test. Figure 6.4 illustrates the time differences in number of words in the ED group.

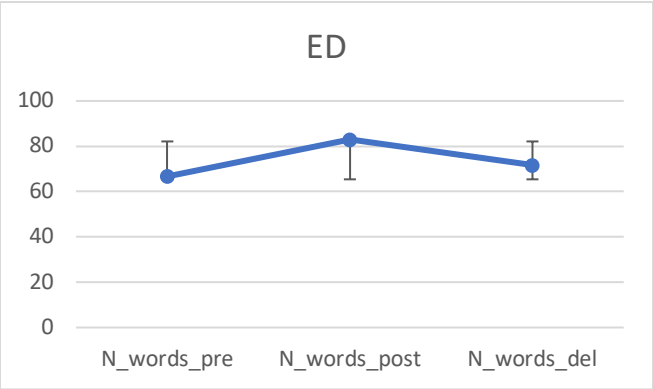
Table 6.5

Wilcoxon W Test ED Group Number of Words Produced

			Statistic	p	Mean difference	SE difference	Effect Size
Pre-Number of words	Post-Number of words	Wilcoxon W	375	< .001	-14.00	4.04	-0.530
Post-Number of words	Del-Number of words	Wilcoxon W	928 [a]	0.188	5.50	4.54	0.205
Pre-Number of words	Del-Number of words	Wilcoxon W	561 [a]	0.081	-7.00	4.37	-0.271

Figure 6.4

Number of words at the three data collection times in the ED group.



The Wilcoxon test for the SE group presented in Table 6.6 shows a statistically very significant increase in the number of words produced from PRE to POST test, p= 0.015 and from PRE to

DELAYED, p= 0.023, but not from POST to DELAYED, p= 0.788 with an effect size (eta squared statistics), as measured by Cohen's d (-0.55) indicating a medium effect from PRE to POST test and Cohen's d (0.52) from PRE to DELAYED test indicating a medium effect as well. Figure 6.5 illustrates the time differences in number of words in the SE group.

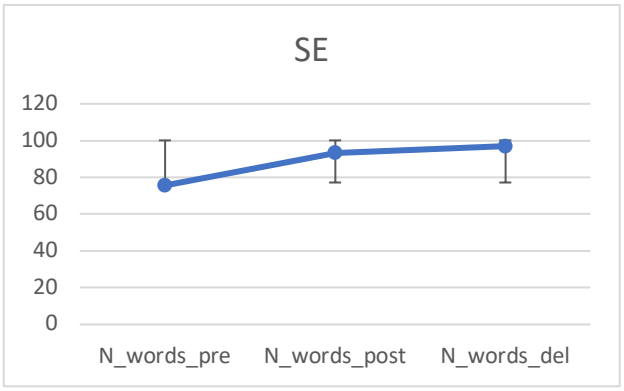
Table 6.6

Wilcoxon W Test SE Group Number of Words Produced

			Statistic	p	Mean difference	SE difference	Effect Size
Pre-Number of words	Post-Number of words	Wilcoxon W	72.0	0.015	-16.00	6.28	-0.5569
Post-Number of words	Del-Number of words	Wilcoxon W	152.0	0.788	-2.50	7.71	-0.0646
Pre-Number of words	Del-Number of words	Wilcoxon W	77.5	0.023	-16.00	8.62	-0.5231

Figure 6.5

Number of words at the three data collection times in the SE group.



The last Wilcoxon test was run for the PE Group and is presented in Table 6.7. Results show a statistically significant increase in the number of words produced from PRE to POST test, p= 0.021 a non-statistically significant decrease from POST to DELAYED, p= 0.510 and a non-significant development from PRE to DELAYED, p= 0.22 with the effect size (eta squared statistics), as measured by Cohen's d (-0.52) indicating a medium effect from PRE to POST test. Figure 6.6 illustrates the time differences in number of words in the PE group.

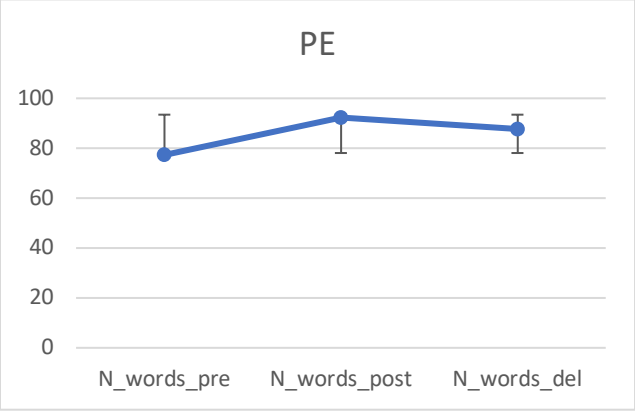
Table 6.7

Wilcoxon W Test PE Group Number of Words Produced

			Statistic	p	Mean difference	SE difference	Effect Size
Pre-Number of words	Post-Number of words	Wilcoxon W	84.0	0.021	-17.00	6.83	-0.521
Post-Number of words	Del-Number of words	Wilcoxon W	187.5 [a]	0.510	4.50	7.32	0.154
Pre-Number of words	Del-Number of words	Wilcoxon W	127.5	0.228	-9.00	7.46	-0.274

Figure 6.6

Number of words at the three data collection times in the PE group



Finally, gains in total number of words produced were compared between groups. Table 6.8 presents the descriptive statistics of the gains and the Shapiro-Wilk normality test produced PRE to POST, POST to DELAYED, and PRE to DELAYED in each group. The group descriptives for gains between the three data collection instances in total number of words produced indicate similar gains in all groups PRE to POST, almost no gains or negative gains POST to DEL and a general increase PRE to DEL with rather large standard deviations, particularly in the NF and SE groups and more discrete gains in the ED and PE groups. The SE group is the group with the highest increase in Number of words. Figure 6.7 visually illustrates the gains for each group.

Table 6.8

Gains in Number of words produced and Shapiro-Wilk test

					Shapiro-Wilk	
	Group	**N**	**Mean**	**SD**	**W**	**p**
Post-Pre Num_of words	NF	22	11.23	20.1	0.958	0.443
	ED	23	16.26	23.1	0.893	0.018
	SE	25	17.72	31.4	0.962	0.463
	PE	26	15.04	34.8	0.971	0.655
Del-Post Num_of words	NF	22	3.32	34.8	0.978	0.888
	ED	23	-11.35	27.9	0.972	0.748
	SE	25	3.68	38.6	0.947	0.210
	PE	26	-4.62	37.3	0.972	0.666
Del-Pre Num_of words	NF	22	14.55	32.3	0.960	0.484
	ED	23	4.91	22.8	0.958	0.419
	SE	25	21.40	43.1	0.873	0.005
	PE	26	10.42	38.0	0.949	0.220

Figure 6.7

Gains in Number of words in each group

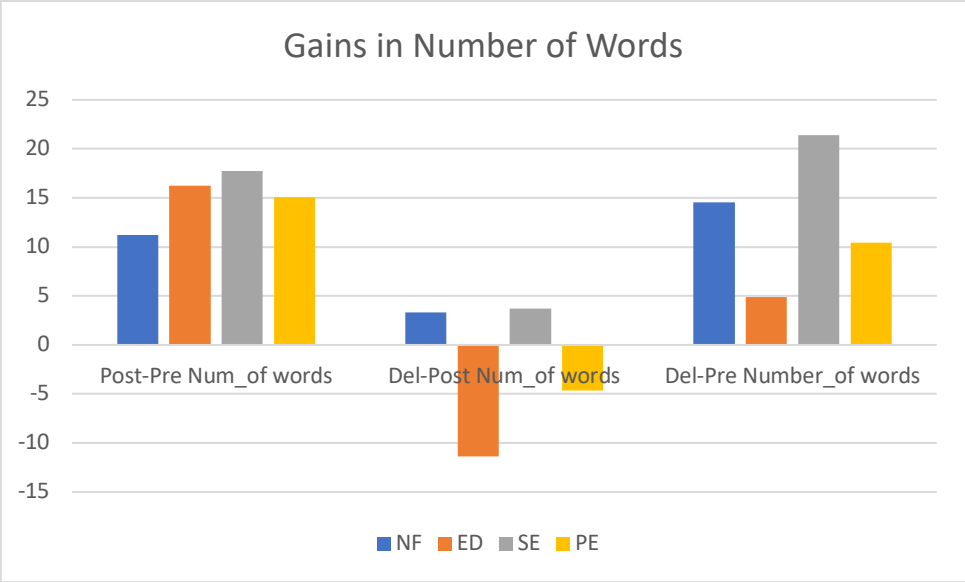


Table 6.9 indicates the results of another Kruskal-Wallis test, used to compare gains between groups. Differences between groups in terms of gains in number of words produced from PRE to POST test $\chi 2(1.07)$, $p = .785$, POST to DELAYED test $\chi 2(3.07)$, $p = .382$, and PRE to DELAYED-test $\chi 2(2.14)$, $p = .544$, were not significant.

Table 6.9

Kruskal-Wallis test: Gains in Number of words between groups

	χ^2	df	p	ε^2
Post-Pre Num_of words	1.07	3	0.785	0.0112
Del-Post Num_of words	3.07	3	0.382	0.0323
Del-Pre Number_of words	2.14	3	0.544	0.0225

6.1.2 3rd person singular errors

The second variable examined was errors in 3rd person singular (3rd p_Sing) in the written productions, and whether any significant reduction existed across groups over the three data collection times. To accurately study error reduction in 3rd p_sing, percentage of errors were calculated as per number of words produced in each written composition. The group descriptives for the mean percentage of errors in 3rd person singular across the three data collection instances is illustrated in Table 6.10 and Figure 6.8, indicating a decreasing tendency in all groups from PRE to POST tests. Similarly, there is a decreasing tendency from POST to DELAYED tests except for the ED group which recorded an increase.

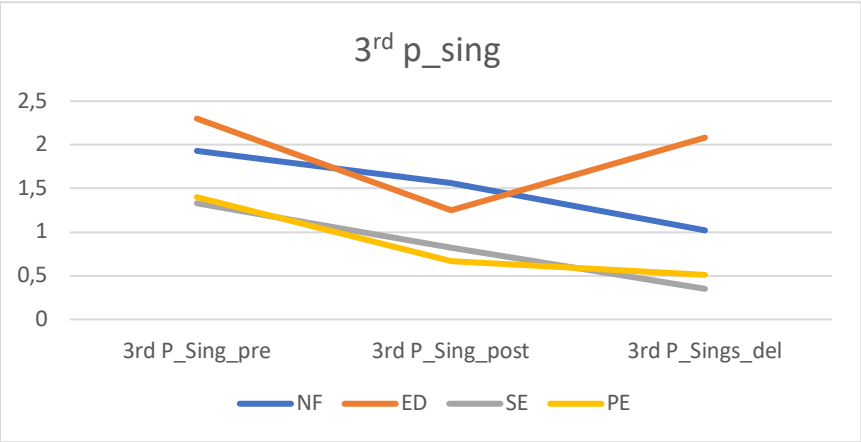
Table 6.10

Group Descriptives 3rd p_sing errors

	Group	N	Mean	SD	SE
Pre % 3rd p_sing	NF	22	1.93	2.22	0.47
	ED	23	2.30	2.75	0.57
	SE	25	1.33	1.55	0.31
	PE	26	1.40	1.82	0.36
Post % 3rd p_sing	NF	22	1.56	1.96	0.42
	ED	23	1.25	1.76	0.37
	SE	25	0.82	1.17	0.23
	PE	26	0.67	1.15	0.23
Del % 3rd p_sing	NF	22	1.02	1.45	0.30
	ED	23	2.08	2.25	0.47
	SE	25	0.35	0.69	0.14
	PE	26	0.51	0.85	0.17

Figure 6.8

Percentage of 3rd p_sing errors by time and group.



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.11, since the *p* value was lower than 0.05 the data was acknowledged as non-normal and therefore, non-parametric tests were conducted.

Table 6.11

Normality Test (Shapiro-Wilk) 3rd p_sing errors

	W	p
Pre % 3rd P_Sing	0.823	< .001
Post % 3rd P_Sing	0.831	< .001
Del % 3rd P_Sing	0.840	< .001

Note. A low p-value suggests a violation of the assumption of normality.

A Kruskal-Wallis non-parametric test was carried out to compare the mean percentage of errors in 3rd p_sing between groups at each data collection time. The results in Table 6.12 indicate non-significant differences between groups at PRE-test $\chi2(3.27)$, $p = .352$ and at POST-test $\chi2(3.76)$, *p*

= .288. The results indicate a significant difference at DELAYED-test $\chi 2(15.98)$, $p = .0001$. Figure 6.9 displays the mean percentage of errors in each group at each data collection time.

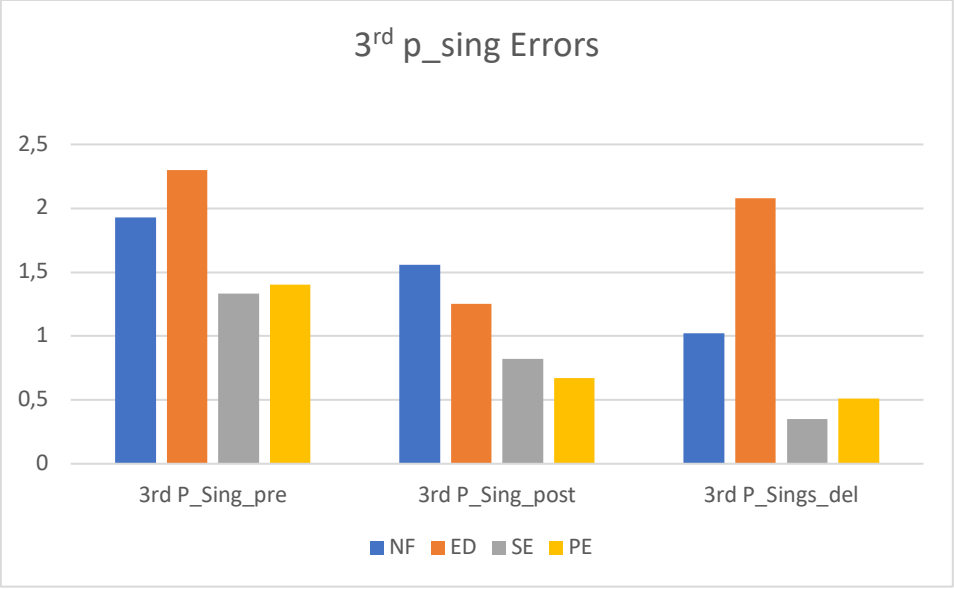
Table 6.12

Kruskal-Wallis 3rd p_sing errors

	χ^2	df	p
Pre % 3rd p_sing	3.27	3	0.352
Post % 3rd p_sing	3.76	3	0.288
Del % 3rd p_sing	15.98	3	0.001*

Figure 6.9

Percentage of 3rd p_sing errors in each group at each data collection time



To identify where the significant differences are between groups, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.13 displays the observation of a significant difference between the ED group and the SE and PE groups in error reduction for 3rd p_sing at DELAYED-test.

Table 6.13

Pairwise comparisons –Del-post % 3rd p_sing errors

		W	p
NF	ED	2.51	0.287
NF	SE	-2.70	0.225
NF	PE	-1.85	0.559
ED	SE	-5.04	0.002*
ED	PE	-4.27	0.014*
SE	PE	1.01	0.892

A Wilcoxon test was conducted within each group to evaluate the effect of time in the percentage of errors in 3rd p_sing within each group across the three data collection times. The Wilcoxon test for the NF group presented in Table 6.14 showed no statistically significant decrease in the percentage of errors in 3rd p_sing from PRE to POST test, p= 0.763, from POST to DELAYED, p= 0.244, or from PRE to DELAYED, p= 0.080. Figure 6.10 illustrates the time differences in percentage of errors for 3rd p_sing in the NF group.

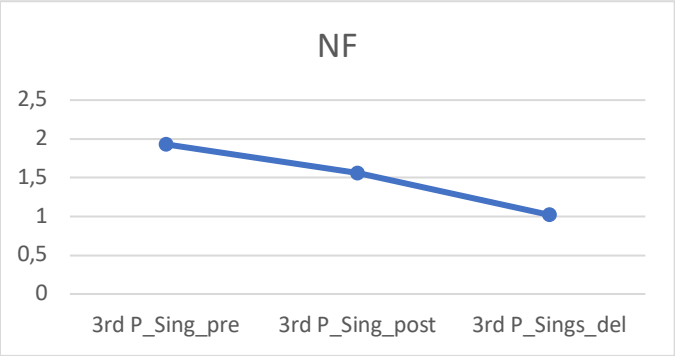
Table 6.14

Wilcoxon W Test NF Group 3rd p_sing errors

			Statistic	p	Mean difference	SE difference	Effect size
Pre % 3rd p_sing	Post % 3rd p_sing	Wilcoxon W	103.0	0.763	0.177	0.556	0.0842
Post % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	81.0	0.244	0.684	0.384	0.3500
Pre % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	139.0	0.080	0.737	0.495	0.4632

Figure 6.10

Percentage of 3rd p_sing errors at the three data collection times in the NF group



The Wilcoxon test for the ED group is presented in Table 6.14 and shows a statistically significant decrease in the percentage of errors in 3rd p_sing from PRE to POST test, p= 0.050, but a non-statistically significant increase from POST to DELAYED, p= 0.117, and a non-significant general development from PRE to DELAYED, p= 0.984. Figure 6.11 illustrates the time differences in 3rd p_sing errors in the ED group with the effect size (eta squared statistics), as measured by Cohen's d (0.53) indicating a medium effect from PRE to POST test.

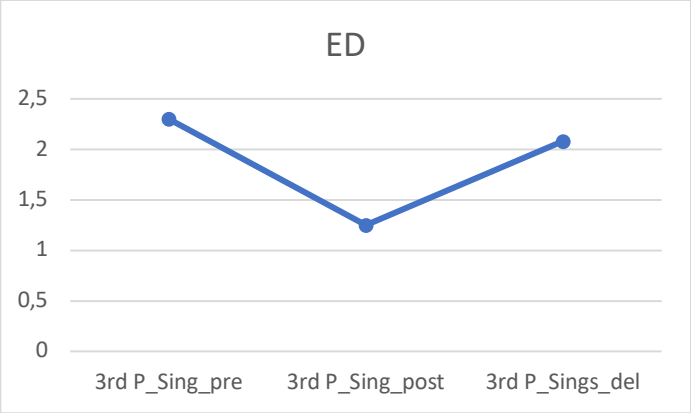
Table 6.15

Wilcoxon W Test ED Group 3rd p_sing errors

			Statistic	p	Mean difference	SE difference	Effect size
Pre % 3rd p_sing	Post % 3rd p_sing	Wilcoxon W	131.0	0.050*	1.1100	0.556	0.532
Post % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	49.0	0.117	-1.0801	0.467	-0.429
Pre % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	94.0	0.984	-0.0392	0.696	-0.015

Figure 6.11

Percentage of 3rd p_ sing errors at the three data collection times in the ED group



The Wilcoxon test for the SE group presented in Table 6.15 shows no statistically significant decrease from PRE to POST test, *p*= 0.153, but a significant decrease from POST to DELAYED, *p*= 0.030, and a very significant decrease from PRE to DELAYED, *p*= 0.008. Figure 12 illustrates the time differences in number of errors for 3rd p_sing in the ED group with the effect size (eta squared statistics), as measured by Cohen's d (0.692) indicating a medium effect from POST to DELAYED test and Cohen's d (0.739) from PRE to DELAYED test indicating a medium effect as well. Figure 6.12 illustrates the time differences in number of words in the SE group

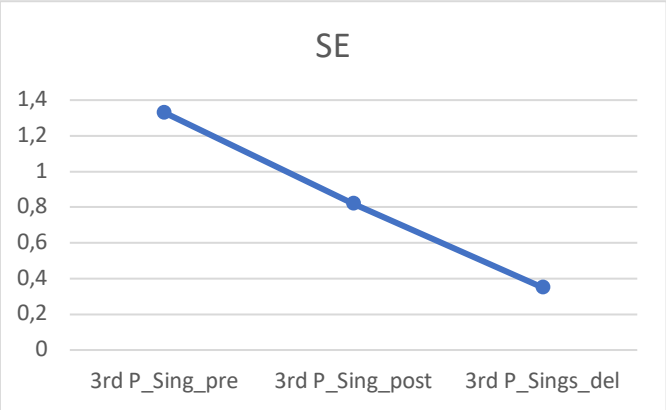
Table 6.16

Wilcoxon W Test SE Group 3rd p_sing errors

			Statistic	p	Mean difference	SE difference	Effect size
Pre % 3rd p_sing	Post % 3rd p_sing	Wilcoxon W	131.0	0.153	0.676	0.303	0.379
Post % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	77.0	0.030*	0.980	0.192	0.692
Pre % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	133.0	0.008	1.280	0.337	0.739

Figure 6.12

Percentage of 3rd p_sing errors at the three data collection times in the SE group



A final Wilcoxon test was run for the PE Group and is presented in Table 6.16. Results show a statistically significant decrease in the percentage of errors in 3rd p_sing from PRE to POST test, *p*= 0.032 and a very significant decrease from PRE to DELAYED, *p*= 0.026, but there was no significant decrease from POST to DELAYED, *p*= 0.638. Figure 13 illustrates the time differences in percentage of errors in the 3rd p_sing in the PE group with the effect size (eta squared statistics), as measured by Cohen's d (0.618) indicating a medium effect from PRE to POST test and Cohen's d (0.621) from PRE to DELAYED test indicating a medium effect as well. Figure 6.13 illustrates the time differences in number of words in the PE group.

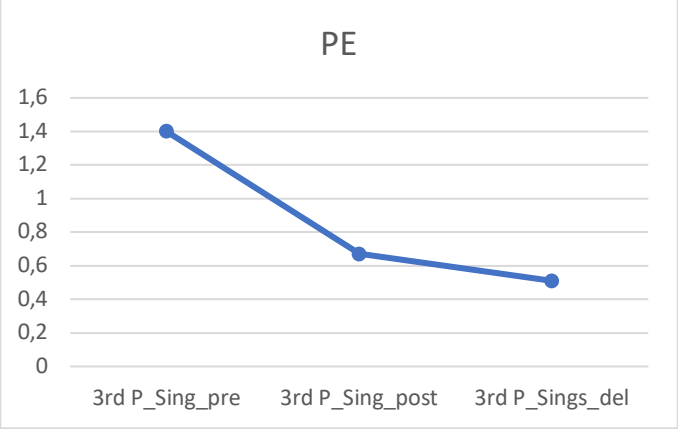
Table 6.17

Wilcoxon W Test PE Group 3rd p_sing errors

			Statistic	p	Mean difference	SE difference	Effect size
Pre % 3rd p_sing	Post % 3rd p_sing	Wilcoxon W	110.0	0.032*	1.008	0.325	0.618
Post % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	45.5	0.638	0.156	0.184	0.167
Pre % 3rd p_sing	Del % 3rd p_sing	Wilcoxon W	124.0	0.026	1.085	0.379	0.621

Figure 6.13

Percentage of 3rd p_sing errors at the three data collection times in the PE group.



To compare error reduction for 3rd p_sing between groups, a final Kruskal-Wallis test was run. Table 6.18 presents the descriptive statistics of the error reduction and the Shapiro-Wilk normality test PRE to POST, POST to DELYED, and PRE to DELAYED in each group. The group descriptives for reduction in total percentage errors for 3rd p_sing between the three data collection instances indicate similar reduction in groups PRE to POST, with the ED and PE groups showing a slight reduction, almost no reduction POST to DEL, except in the ED group, where an increase is observed, and a general decrease PRE to DEL in all groups, except in the ED group, where the

decrease is very modest. The SE group is the group with the highest reduction in errors for 3rd p_sing. Figure 6.14 visually illustrates error reduction for each group.

Table 6.18

Descriptive statistics for reduction in the percentage of 3rd p_sing errors.

						Shapiro-Wilk	
	Group	**N**	**Mean**	**SE**	**SD**	**W**	**p**
Post-Pre % 3rd P_Sing	NF	22	-0.37	0.557	2.611	0.883	0.014
	ED	23	-1.06	0.556	2.665	0.735	< .001
	SE	25	-0.51	0.303	1.517	0.951	0.267
	PE	26	-0.73	0.325	1.656	0.829	< .001
Del-Post % 3rd P_Sing	NF	22	-0.54	0.384	1.802	0.898	0.028
	ED	23	0.84	0.467	2.241	0.970	0.697
	SE	25	-0.47	0.192	0.958	0.853	0.002
	PE	26	-0.16	0.184	0.937	0.737	< .001
De-Pre % 3rd P_Sing	NF	22	-0.91	0.495	2.323	0.836	0.002
	ED	23	-0.22	0.696	3.340	0.867	0.006
	SE	25	-0.98	0.337	1.684	0.903	0.022
	PE	26	-0.89	0.379	1.930	0.809	< .001

Figure 6.14

Percentage of 3rd p_sing error reduction in each group

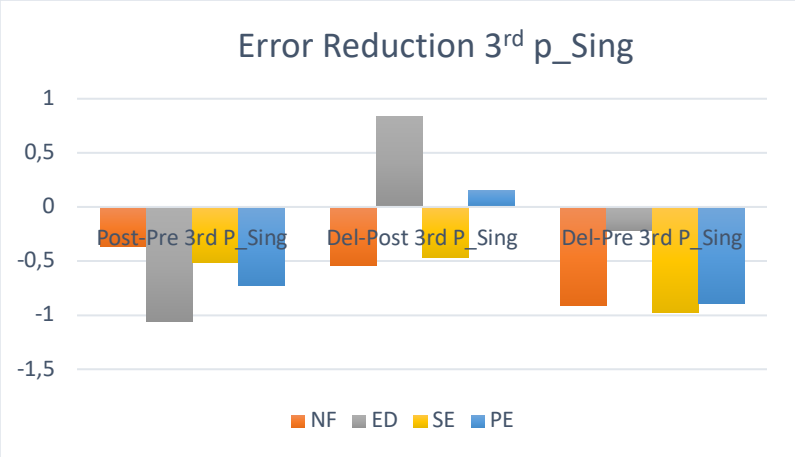


Table 6.19 indicates the results of the Kruskal-Wallis test. Non-significant differences were found between groups in the reduction of 3rd p_sing errors from PRE to POST test $\chi 2(1.01)$, $p = .798$, POST to DELAYED test $\chi 2(6.28)$, $p = .099$, or PRE to DELAYED-test $\chi 2(2.00)$, $p = .573$.

Table 6.19

Kruskal-Wallis test: 3rd p_sing error reduction between groups

	χ^2	df	p	ε^2
Post-Pre % 3rd p_sing	1.01	3	0.798	0.0107
Del-Post %3rd p_sing	6.28	3	0.099	0.0661
De-Pre %3rd p_sing	2.00	3	0.573	0.0210

6.1.3 Article errors

The third variable examined was article errors in the children's written productions, and whether any significant reduction existed across groups over three data collection times. To accurately study error reduction for articles, number of article errors were calculated as per number of words produced in each written composition. The group descriptives across the three data collection instances are illustrated in Table 6.20 and Figure 6.15 indicating a decreasing tendency in all groups from PRE to POST tests. There was practically no decrease in article errors from POST to DELAYED tests in any of the groups.

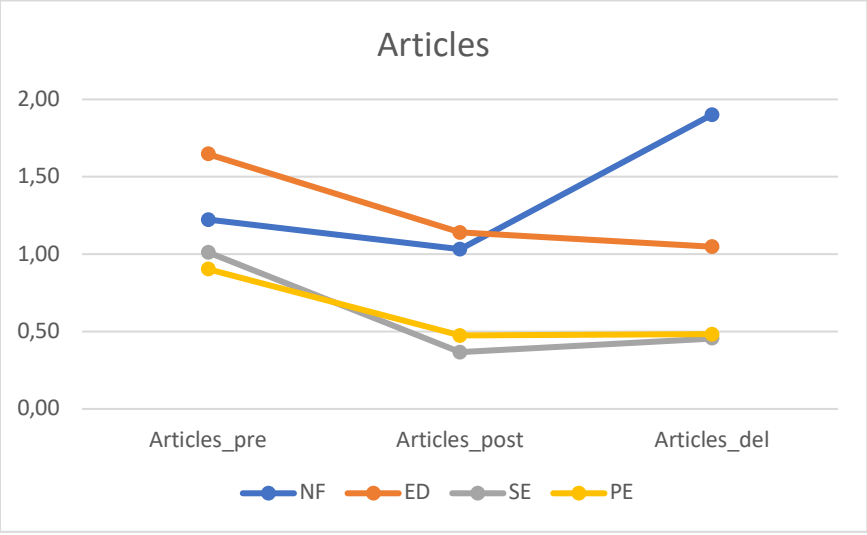
Table 6.20

Group Descriptives article errors

	Group	N	Mean	SD	SE
Pre % Articles	NF	22	1.223	1.050	0.224
	ED	23	1.646	2.378	0.496
	SE	25	1.012	1.252	0.250
	PE	26	0.903	1.865	0.366
Post % Articles	NF	22	1.032	1.426	0.304
	ED	23	1.140	1.424	0.297
	SE	25	0.367	0.693	0.139
	PE	26	0.475	0.774	0.152
Del-Post % Articles	NF	22	1.901	2.072	0.442
	ED	23	1.048	1.272	0.265
	SE	25	0.456	0.747	0.149
	PE	26	0.482	0.899	0.176

Figure 6.15

Percentage of article errors by group and time



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.21, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.21

Normality Test (Shapiro-Wilk) article errors

			W	p
Pre % Articles	-	Post % Articles	0.900	< .001
Post % Articles	-	Del-Post % Articles	0.869	< .001
Pre % Articles	-	Del-Post % Articles	0.914	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis test was conducted to compare the mean percentage of article errors between groups at each data collection time. The results in Table 6.22 indicate no significant differences between groups at PRE-test $\chi 2(5.17)$, marginally significant differences between groups at POST-test $\chi 2(7.35)$, $p = .062$ and a significant difference between groups at DELAYED-test $\chi 2(13.46)$, $p = .004$. Figure 6.16 displays the percentage of errors in each group at each data collection time.

Table 6.22

Kruskal-Wallis test article errors

	χ^2	df	p
Pre % Articles	5.17	3	0.159
Post % Articles	7.35	3	0.062
Del-Post % Articles	13.46	3	0.004*

Figure 6.16

Percentage of article errors by each group at each data collection time

To identify where the significant differences are between groups, Dwass-Steel-Critchlow-Fligner pairwise comparisons were run. displays the observation of a significant difference between the NF group and the SE and PE groups at Delayed-Post test.

Table 6.23

Pairwise comparisons - % Del-Post article errors

		W	p
NF	ED	-1.948	0.514
NF	SE	-4.096	0.020*
NF	PE	-4.307	0.012*
ED	SE	-2.479	0.297
ED	PE	-2.736	0.214
SE	PE	-0.347	0.995

Next, a Wilcoxon test was conducted within each group to evaluate the effect of time in the percentage of article errors within each group across the three data collection times. The Wilcoxon test for the NF group presented in Table 6.24 showed no statistically significant decrease from PRE to POST test, p= 0.338, or from PRE to DELAYED, p= 0.179, but there was a statistically significant increase from POST to DELAYED, p= 0.021 with the effect size (eta squared statistics), as measured by Cohen's d (0.683) indicating a medium effect from POST to DELAYED test. Figure 6.17 illustrates the time differences in the NF group.

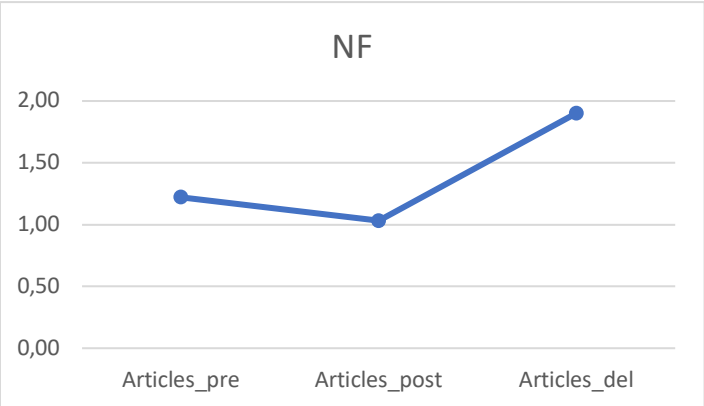
Table 6.24

Wilcoxon W Test NF Group article errors

			Statistic	p	Mean difference	SE difference	Effect size
% Pre articles	% Post articles	Wilcoxon W	108.0 [a]	0.338	0.420	0.402	0.263
% Post article	% Del-Post Articles	Wilcoxon W	19.0 [b]	0.021	-1.190	0.383	-0.683
% Pre articles	% Del-Post Articles	Wilcoxon W	68.5 [d]	0.179	-0.842	0.431	-0.348

Figure 6.17

Percentage of article errors at the three data collection times in the NF group



The Wilcoxon test for the ED group is presented in Table 6.25 and shows no statistically significant decrease from PRE to POST test, p= 0.394, from POST to DELAYED, p= 0.913, or from PRE to DELAYED, p= 0.298. Figure 6.18 illustrates the time differences in the ED group.

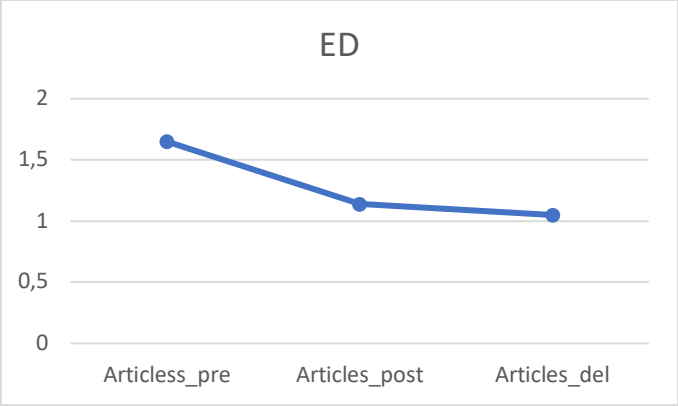
Table 6.25

Wilcoxon W Test ED Group article errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Articles	Post % Articles	Wilcoxon W	95.0 [a]	0.394	0.4400	0.507	0.2418
Post % Article	Del-Post % Articles	Wilcoxon W	82.5 [b]	0.913	-0.0550	0.400	-0.0351
Pre % Articles	Del-Post %Articles	Wilcoxon W	99.0 [a]	0.298	0.5900	0.459	0.2941

Figure 6.18

Percentage of article errors at the three data collection times in the ED group.



The Wilcoxon test for the SE group presented in Table 6.26 shows a statistically significant decrease in the percentage of article errors from PRE to POST test, p= 0.042, but no significant increase from POST to DELAYED, p= 0.683, and no significant development from PRE to

DELAYED, *p*= 0.098 with the effect size (eta squared statistics), as measured by Cohen's d (0.569) indicating a medium effect from PRE to POST test. Figure 6.19 illustrates the time differences in the SE group.

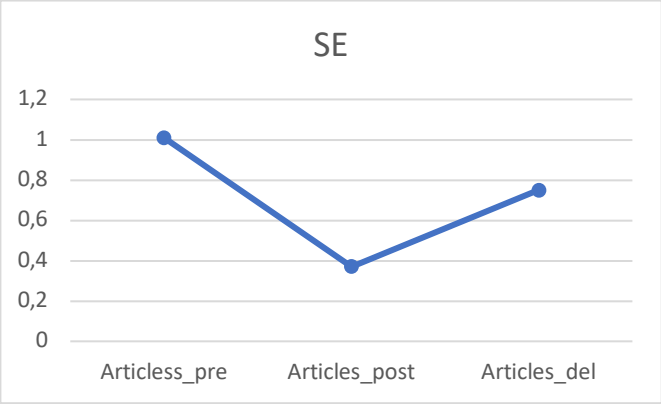
Table 6.26

Wilcoxon W Test SE Group article errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Articles	Post % Articles	Wilcoxon W	120.0 [a]	0.042*	0.895	0.299	0.569
Post % Articles	Del-Post % Articles	Wilcoxon W	23.0 [b]	0.683	-0.275	0.172	-0.164
Pre % Articles	Del-Post % Articles	Wilcoxon W	124.0 [d]	0.098	0.860	0.287	0.450

Figure 6.19

Percentage of article errors at the three data collection times in the SE group.



A final Wilcoxon test was run for the PE Group and is presented in Table 6.27. Results show no statistically significant decrease from PRE to POST test, *p*= 0.346 or from POST to DELAYED, *p*= 0.950 and no significant development from PRE to DELAYED, *p*= 0.367 either. Figure 6.20 illustrates the time differences in the PE group.

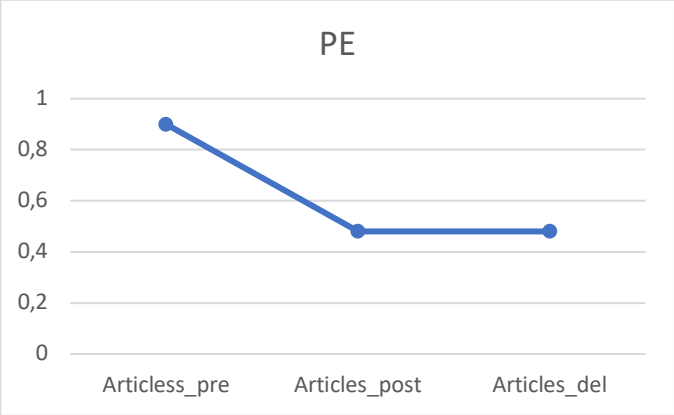
Table 6.27

Wilcoxon W Test PE Group article errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Articles	Post % Articles	Wilcoxon W	68.0 [a]	0.346	0.4500	0.373	0.2952
Post % Articles	Del-Post % Articles	Wilcoxon W	51.0 [a]	0.950	-0.0451	0.238	-0.0286
Pre % Articles	Del-Post % Articles	Wilcoxon W	51.0 [b]	0.367	0.5757	0.355	0.3077

Figure 6.20

Percentage of article errors at the three data collection times in the PE group.



Finally, to compare percentages of article error reduction between groups, a Kruskal-Wallis test was run. Table 6.28 presents the descriptive statistics and the Shapiro-Wilk normality test PRE to POST, POST to DELAYED, and PRE to DELAYED in each group. The group descriptives indicate similar reduction in practically all groups PRE to POST and PRE to DELAYED, except the NF group. Figure 6.21 visually illustrates error reduction for each group.

Table 6.28

Descriptive statistics for reduction in the percentage of article errors.

						Shapiro-Wilk	
	Group	N	Mean	SE	SD	W	p
Post-Pre % Articles	NF	22	-0.191	0.402	1.89	0.928	0.111
	ED	23	-0.507	0.507	2.43	0.874	0.008
	SE	25	-0.646	0.299	1.50	0.897	0.015
	PE	26	-0.429	0.373	1.90	0.763	< .001
Del-Post % Articles	NF	22	-1.223	0.224	1.05	0.906	0.039
	ED	23	-1.646	0.496	2.38	0.702	< .001
	SE	25	-1.012	0.250	1.25	0.783	< .001
	PE	26	-0.903	0.366	1.86	0.548	< .001
De-Pre % Articles	NF	22	0.679	0.431	2.02	0.929	0.119
	ED	23	-0.598	0.459	2.20	0.892	0.017
	SE	25	-0.556	0.287	1.43	0.965	0.514
	PE	26	-0.422	0.355	1.81	0.655	< .001

Figure 6.21

Percentage of article error reduction in each group

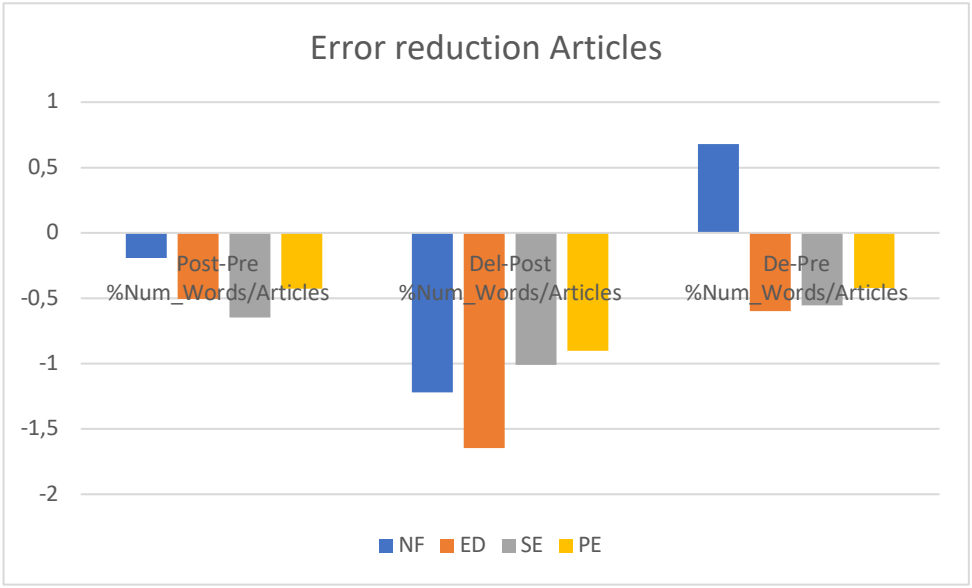


Table 6.29 indicates the results of the Kruskal-Wallis test. No significant differences were found between groups in percentages of article error reduction from PRE to POST test $\chi 2(0.311)$, p = .958, POST to DELAYED test $\chi 2(5.174)$, p = .159, and PRE to DELAYED-test $\chi 2(4.605)$, p = .203.

Table 6.29

Kruskal-Wallis test: article error reduction between groups

	χ^2	df	p	ε^2
Post-Pre %Num_Words/Articles	0.311	3	0.958	0.00327
Del-Post %Num_Words/Articles	5.174	3	0.159	0.05446
De-Pre %Num_Words/Articles	4.605	3	0.203	0.04847

6.1.4 Preposition errors

The fourth variable examined was preposition errors in the written productions, and whether any significant reduction existed across groups over three data collection times. To accurately study error reduction for prepositions, percentage of errors were calculated as per number of words produced in each written composition. The group descriptives for the mean percentage of preposition errors across the three data collection instances is illustrated in Table 6.30 and Figure 6.22, indicating a decreasing tendency in all groups from PRE to POST tests. There were no remarkable differences from POST to DELAYED tests for the NF and the SE groups but a decrease was observed in the ED and PE groups.

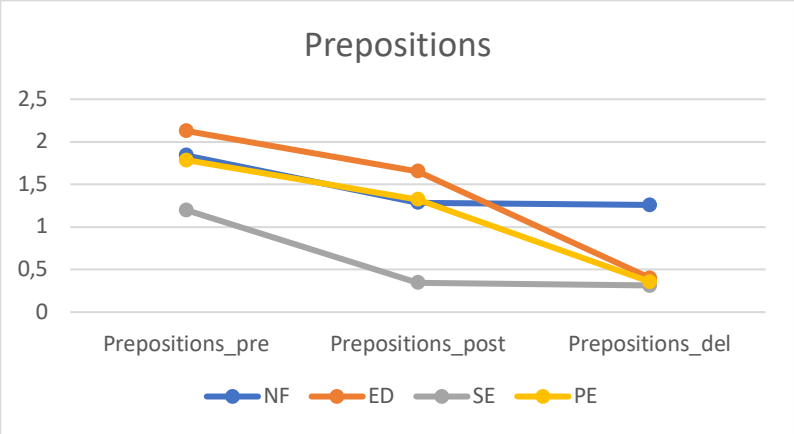
Table 6.30

Group Descriptives Preposition errors between groups

	Groups	N	Mean	SE	SD
Pre % Prep	NF	22	1.840	0.3792	1.779
	ED	23	2.128	0.3108	1.490
	SE	25	1.199	0.2431	1.216
	PE	26	1.786	0.3666	1.869
Post % Prep	NF	22	1.286	0.2855	1.339
	ED	23	1.652	0.4026	1.931
	SE	25	0.348	0.1073	0.537
	PE	26	1.324	0.2696	1.375
Del % Prep	NF	22	1.259	0.2545	1.194
	ED	23	0.403	0.1386	0.665
	SE	25	0.314	0.0981	0.491
	PE	26	0.358	0.1126	0.574

Figure 6.22

Percentage of preposition errors by time and group



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.31, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.31

Normality Test (Shapiro-Wilk) prepositions

	W	p
Pre % Prep	0.935	< .001
Post % Prep	0.871	< .001
Del % Prep	0.864	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis test was conducted to compare the mean percentage of preposition errors between groups at each data collection time. The results in Table 6.32 indicate non-significant differences between groups at PRE-test $\chi2(4.15)$, very significant differences between groups at POST-test $\chi2(12.69)$, $p = .0005$ and a very significant difference between groups at DELAYED-test $\chi2(14.33)$, $p = .002$. Figure 6.23 displays the number of errors in each group at each data collection time.

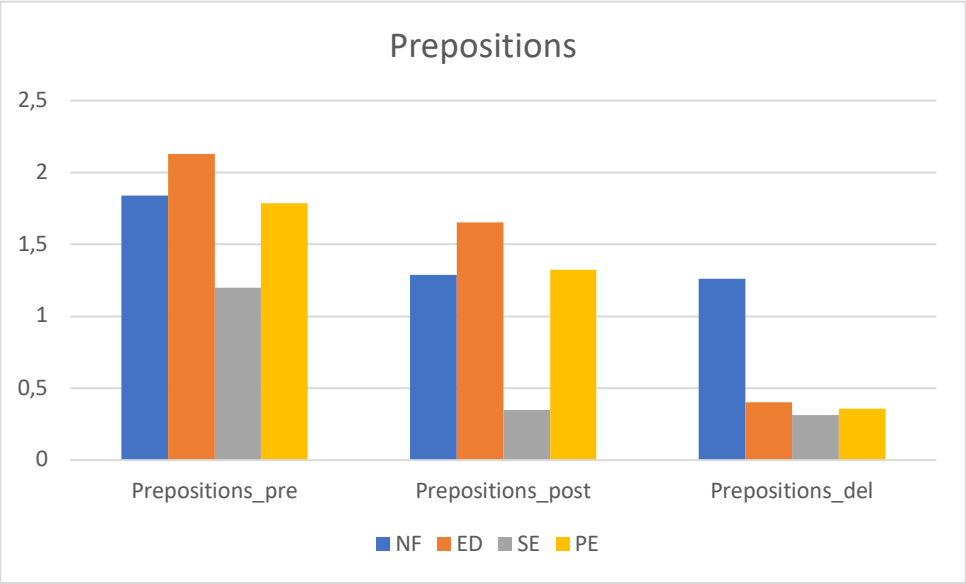
Table 6.32

Kruskal-Wallis preposition errors

	χ^2	df	p	ε^2
Pre % Prep	4.15	3	0.246	0.0437
Post % Prep	12.69	3	0.005*	0.1336
Del % Prep	13.27	3	0.004*	0.1397

Figure 6.23

Percentage of preposition errors by each group at each data collection time



To identify where the significant differences were between groups at POST-test, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.33 displays the observation of a significant difference between the SE group and all the other groups.

Table 6.33

Pairwise comparisons - Post % Preposition errors

		W	p
NF	ED	0.465	0.988
NF	SE	-3.804	0.036*
NF	PE	-0.119	1.000
ED	SE	-3.930	0.028*
ED	PE	-0.461	0.988
SE	PE	4.758	0.004*

At DELAYED-test, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were also run. Table 6.34 displays the observation of a significant difference between the NF group and all the other groups.

Table 6.34

Pairwise comparisons - Del % preposition errors

		W	p
NF	ED	-3.9395	0.027*
NF	SE	-3.9581	0.026*
NF	PE	-4.2116	0.015*
ED	SE	0.0178	1.000
ED	PE	0.0000	1.000
SE	PE	-0.2591	0.998

Next**,** a Wilcoxon test was conducted within each group to evaluate the effect of time and intervention in the percentage of preposition errors within each group across the three data collection times. The Wilcoxon test for the NF group presented in Table 6.35 showed no statistically significant decrease in the percentage of preposition errors from PRE to POST test, p= 0.276, from PRE to DELAYED p= 0.952, or from POST to DELAYED p= 0.173. Figure 6.24 illustrates the time differences in the percentage of preposition errors in the NF group.

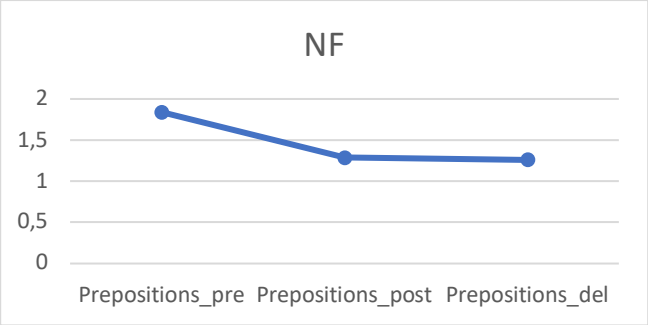
Table 6.35

Wilcoxon W Test NF Group preposition errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Prep	Post % Prep	Wilcoxon W	111.0 [a]	0.276	0.7650	0.432	0.2982
Post % Prep	Del %Prep	Wilcoxon W	97.0 [b]	0.952	0.0300	0.383	0.0211
Pre % Prep	Del %Prep	Wilcoxon W	142.0 [d]	0.173	0.7985	0.439	0.3524

Figure 6.24

Percentage of preposition errors at the three data collection times in the NF group



The Wilcoxon test for the ED group is presented in Table 6.36 and shows no statistically significant decrease in the percentage of preposition errors from PRE to POST test p= 0.434 and a statistically significant difference from POST to DELAYED, p= 0.006, and from PRE to DELAYED p= 0.001 with the effect size (eta squared statistics), as measured by Cohen's d (0.794) indicating a large effect from POST to DELAYED test and Cohen's d (0.853) from PRE to DELAYED also indicating a large effect. Figure 6.25 illustrates the time differences in the percentage of preposition errors in the ED group.

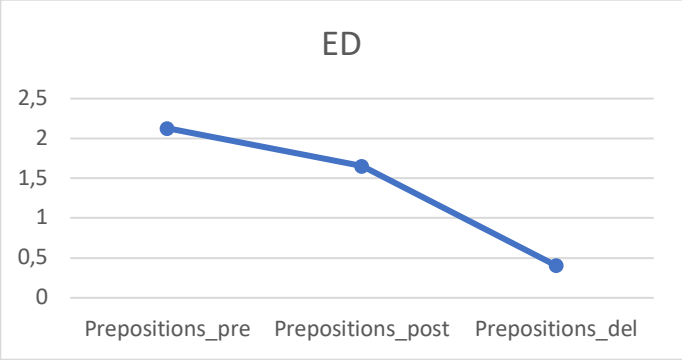
Table 6.36

Wilcoxon W Test ED Group preposition errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Prep	Post % Prep	Wilcoxon W	139 [a]	0.434	0.470	0.518	0.199
Post % Prep	Del %Prep	Wilcoxon W	122 [b]	0.006*	1.684	0.395	0.794
Pre % Prep	Del %Prep	Wilcoxon W	214 [a]	< .001*	1.925	0.370	0.853

Figure 6.25

Percentage of preposition errors at the three data collection times in the ED group



The Wilcoxon test for the SE group presented in Table 6.37 shows a statistically very significant decrease in the percentage of preposition errors from PRE to POST test p= 0.004, but no significant reduction from POST to DELAYED, p= 0.294, and a very significant decrease from PRE to DELAYED, p= 0.003 with the effect size (eta squared statistics), as measured by Cohen's d (0.810) indicating a large effect from PRE to POST test and Cohen's d (0.830) from PRE to DELAYED also indicating a large effect. Figure 6.26 illustrates the time differences in preposition errors in the SE group.

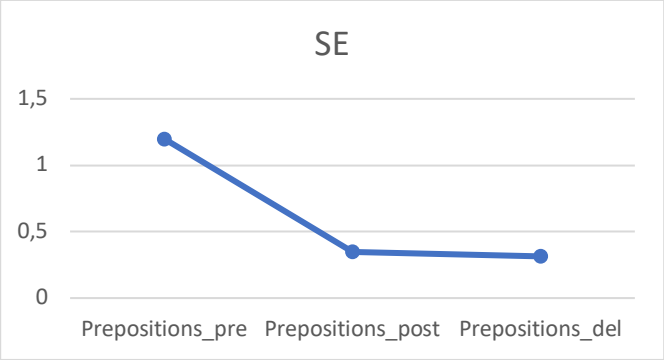
Table 6.37

Wilcoxon W Test SE Group preposition errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Prep	Post % Prep	Wilcoxon W	138.5 [a]	0.004*	1.330	0.2487	0.810
Post % Prep	Del %Prep	Wilcoxon W	26.0 [b]	0.294	0.131	0.0268	0.444
Pre % Prep	Del %Prep	Wilcoxon W	140.0 [a]	0.003*	1.335	0.2454	0.830

Figure 6.26

Percentage of preposition errors at the three data collection times in the SE group



A final Wilcoxon test was run for the PE group and is presented in Table 6.38. Results show no statistically significant decrease in the percentage of preposition errors from PRE to POST test, *p*= 0.187 and a statistically very significant decrease from POST to DELAYED, *p*= 0.001 and from PRE to DELAYED, *p*= 0.001 with the effect size (eta squared statistics), as measured by Cohen's d (0.810) indicating a large effect from POST to DELAYED test and Cohen's d (0.) from PRE to DELAYED also indicating a large effect. Figure 6.27 illustrates the time differences in the percentage of preposition errors in the PE group.

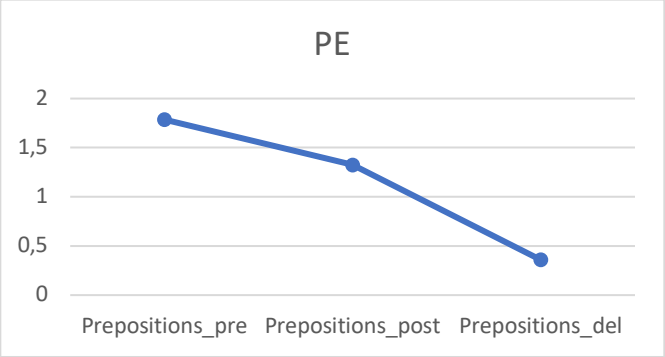
Table 6.38

Wilcoxon W Test PE Group preposition errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Prep	Post % Prep	Wilcoxon W	154 [a]	0.187	0.595	0.405	0.333
Post % Prep	Del %Prep	Wilcoxon W	209 [a]	0.001*	1.120	0.273	0.810
Pre % Prep	Del %Prep	Wilcoxon W	185 [b]	0 .001*	1.687	0.337	0.947

Figure 6.27

Percentage of preposition errors at the three data collection times in the PE group



Finally, to compare percentages of preposition error reduction between groups, a final Kruskal-Wallis test was run. Table 6.39 presents the descriptive statistics and the Shapiro-Wilk normality test PRE to POST, POST to DELAYED, and PRE to DELAYED in each group. The group descriptives for reduction in total percentage preposition errors between the three data collection instances indicate that the SE group exhibited the largest reduction in preposition errors PRE to

POST followed by the NF group. The PE and ED groups recorded smaller reductions. The ED and PE groups demonstrated the most substantial reduction from POST to DELAYED. In contrast, the SE group exhibited a very small increase in errors, and the NF group displayed a negligible reduction. From PRE to DELAYED, the ED group recorded the most significant reduction followed by the PE group. The SE and NF groups showed moderate reductions. The NF group exhibited the least reduction across all stages. Figure 6.28 visually illustrates the error reduction for each group.

Table 6.39

Descriptive statistics for reduction in the percentage of preposition errors

					Shapiro-Wilk	
	Groups	**N**	**Mean**	**SD**	**W**	**p**
Post-Pre % Prep	NF	22	-0.5532	2.024	0.965	0.596
	ED	23	-0.4761	2.484	0.961	0.484
	SE	25	-0.8512	1.244	0.941	0.158
	PE	26	-0.4619	2.064	0.870	0.003
Del-Post % Prep	NF	22	-0.0273	1.798	0.975	0.817
	ED	23	-1.2496	1.895	0.913	0.047
	SE	25	0.0548	0.242	0.670	< .001
	PE	26	-0.9654	1.391	0.834	< .001
Del-Pre % Prep	NF	22	-0.5809	2.061	0.961	0.517
	ED	23	-1.7252	1.777	0.978	0.862
	SE	25	-0.7956	1.291	0.931	0.090
	PE	26	-1.4269	1.721	0.881	0.006

Figure 6.28

Percentage of preposition error reduction in each group

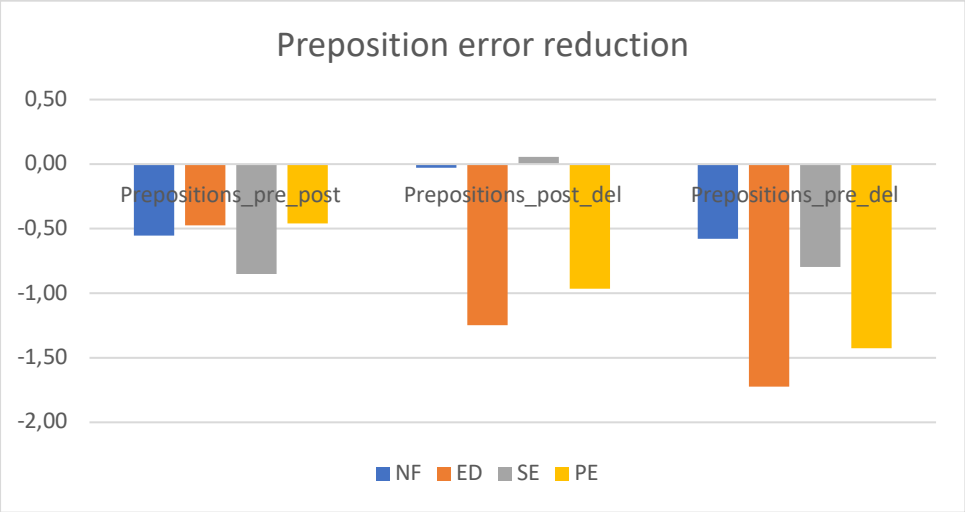


Table 6.40 indicates the results of the Kruskal-Wallis test. Non-significant differences were found between groups in the reduction in number of preposition errors from PRE to POST test $\chi 2(1.21)$, $p = .751$ and from PRE to DELAYED-test $\chi 2(5.19)$, $p = .159$. Very significant differences were found between groups from POST to DELAYED test $\chi 2(14.33)$, $p = .002$.

Table 6.40

Kruskal-Wallis preposition errors

	χ^2	df	p	ε^2
Post-Pre % Prep	1.21	3	0.751	0.0127
Del-Post % Prep	14.33	3	0.002*	0.1508
Del-Pre % Prep	5.19	3	0.159	0.0546

To identify where the significant differences were between groups from POST to DELAYED test Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. As Table 6.41 illustrates, a

significant difference was found between the SE and the ED and PE groups, with the SE group displaying a very slight increase in preposition errors.

Table 6.41

Pairwise comparisons - Del-Post preposition errors

		W	p
NF	ED	-2.583	0.261
NF	SE	1.177	0.839
NF	PE	-2.698	0.225
ED	SE	4.025	0.023*
ED	PE	0.542	0.981
SE	PE	-5.209	0.001*

6.1.5 Verb drop errors

The fifth variable examined was Verb Drop (V_Drop) errors in the written productions, and whether any significant reduction existed across groups over the three data collection times. To accurately study V_Drop error reduction, percentage of errors was calculated in relation to number of words produced in each written composition. The group descriptives across the three data collection times are illustrated in Table 6.42 indicating a decreasing tendency in all groups except for PE from PRE to POST tests. From POST to DELAYED tests V_Drop decreased in the SE and PE groups, but an increasing tendency is found in the NF and ED groups. Figure 6.29 visually illustrates the mean percentages for each group.

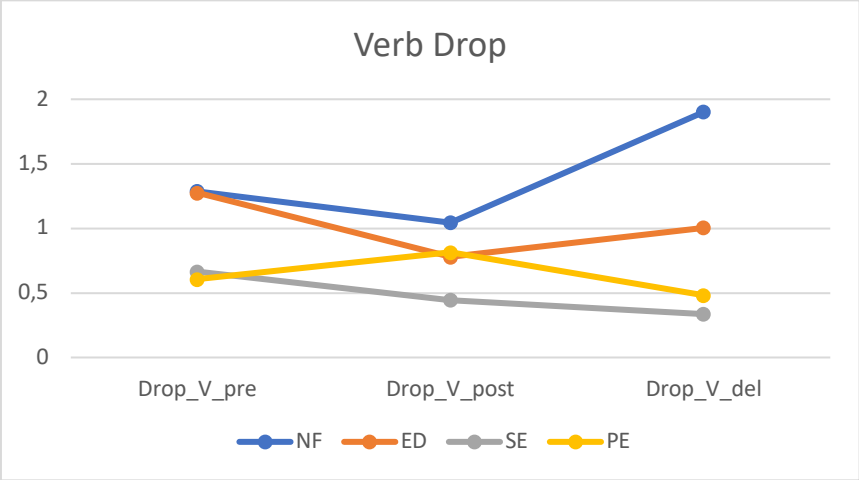
Table 6.42

Group Descriptives V_Drop errors

	Group	N	Mean	SD	SE
Pre % V_Drop	NF	22	1.287	2.303	0.491
	ED	23	1.276	1.358	0.283
	SE	25	0.665	1.259	0.252
	PE	26	0.606	1.558	0.306
Post % V_Drop	NF	22	1.044	1.436	0.306
	ED	23	0.780	1.127	0.235
	SE	25	0.444	0.645	0.129
	PE	26	0.815	1.148	0.225
Del % V_ Drop	NF	22	1.901	2.072	0.442
	ED	23	1.005	1.286	0.268
	SE	25	0.336	0.569	0.114
	PE	26	0.482	0.899	0.176

Figure 6.29

Percentage of V_Drop errors by time and group



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.43, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.43

Normality Test (Shapiro-Wilk) V_Drop errors

	W	p
Pre % V_Drop	0.695	< .001
Post % V_Drop	0.817	< .001
Del % V_ Drop	0.849	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis non parametric test was conducted to compare the mean percentages of V_Drop errors between groups at each data collection time. The results in Table 6.44 indicate a marginal significant difference between groups at PRE-test $\chi2(7.76)$, $p = .051$, a marginally significant difference at DELAYED-test $\chi2(15.07)$, $p = .002$ and no significant difference between groups at POST-test $\chi2(2.16)$, $p = .539$. Figure 6.30 displays the percentage of errors in each group at each data collection time.

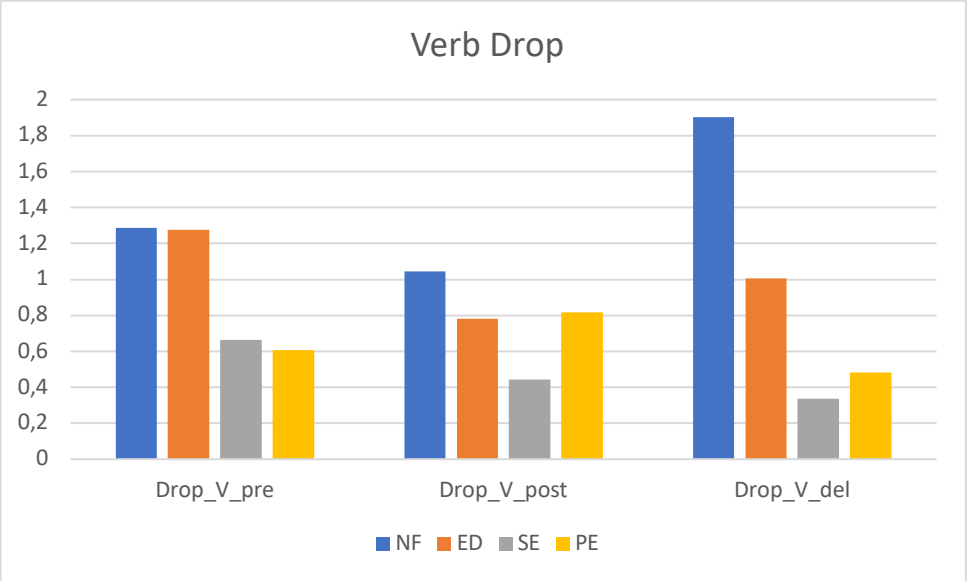
Table 6.44

Kruskal-Wallis V_Drop errors

	χ^2	df	p	ε^2
Pre % V_Drop	7.76	3	0.051	0.0817
Post % V_Drop	2.16	3	0.539	0.0228
Del % V_Drop	15.07	3	0.002*	0.1586

Figure 6.30

Percentage of V_Drop errors by each group at each data collection time



To identify where the significant differences between groups were, a Dwass-Steel-Critchlow-Fligner pairwise comparisons test was run (see Table 6.45). Significant differences were found between the NF group and the SE and PE groups at DELAYED test.

Table 6.45

Pairwise comparisons – Del % V_Drop errors

		W	p
NF	ED	-1.9808	0.499
NF	SE	-4.5819	0.007*
NF	PE	-4.3072	0.012*
ED	SE	-2.9292	0.163
ED	PE	-2.6727	0.232
SE	PE	-0.0496	1.000

Next, a Wilcoxon test was conducted within each group to evaluate the effect of time in the percentage of V_Drop errors within each group across the three data collection times. Table 6.46

shows no statistically significant decrease from PRE to POST test, p= 0.670, and from PRE to DELAYED, p= 0.170, but there was a statistically significant increase from POST to DELAYED, p= 0.042 in the NF group with a medium effect size (0.537). Figure 6.31 illustrates the time differences in the NF group.

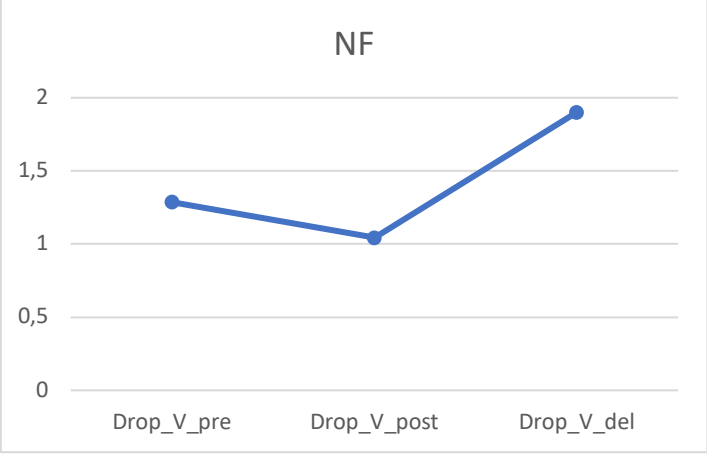
Table 6.46

Wilcoxon W Test NF Group V_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % V_Drop	Post % V_Drop	Wilcoxon W	86.0 [a]	0.670	0.205	0.558	0.124
Post % V_Drop	Del %V_Drop	Wilcoxon W	44.0 [b]	0.042*	-1.141	0.506	-0.537
Pre % V_Drop	Del %V_Drop	Wilcoxon W	47.0 [a]	0.170	-0.915	0.367	-0.386

Figure 6.31

Percentage of V_Drop errors in the NF group



The Wilcoxon test for the ED group is presented in Table 6.47 and shows no statistically significant decrease from PRE to POST test, p= 0.124, and a non-statistically significant increase from POST to DELAYED, p= 0.538 and no significant development from PRE to DELAYED, p= 0.360. Figure 6.32 illustrates the time differences in the ED group.

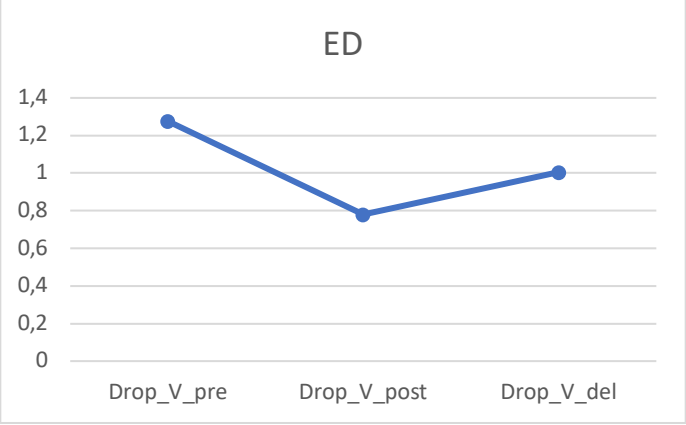
Table 6.47

Wilcoxon W Test ED Group V_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % V_Drop	Post % V_Drop	Wilcoxon W	109.5 [a]	0.124	0.770	0.361	0.431
Post % V_Drop	Del %V_Drop	Wilcoxon W	63.0 [a]	0.538	-0.310	0.382	-0.176
Pre % V_Drop	Del %V_Drop	Wilcoxon W	107.0 [b]	0.360	0.505	0.356	0.251

Figure 6.32

Percentage of V_Drop errors in the ED group.



The Wilcoxon test for the SE group presented in Table 6.48 shows a non-significant decrease from PRE to POST test, p= 0.394, from POST to DELAYED, p= 0.442, or from PRE to DELAYED, p= 0.315. Figure 6.33 illustrates the time differences in the SE group.

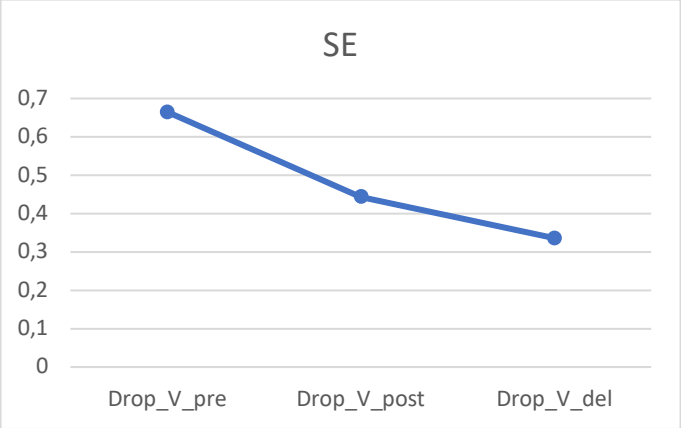
Table 6.48

Wilcoxon W Test SE Group V_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % Drop V	Post % Drop V	Wilcoxon W	75.5 [a]	0.394	0.276	0.275	0.258
Post % Drop V	Del %Drop V	Wilcoxon W	57.0 [b]	0.442	0.160	0.146	0.253
Pre % Drop V	Del %Drop V	Wilcoxon W	69.0 [d]	0.315	0.345	0.286	0.314

Figure 6.33

Percentage of V_Drop errors in the SE group.



A final Wilcoxon test was run for the PE Group and is presented in Table 6.49. Results show a non-significant increase from PRE to POST test, p= 0.256 , a non-significant decrease from POST

to DELAYED, p= 0.148 and no significant development from PRE to DELAYED, p= 0.799. Figure 6.34 illustrates the time differences in the PE group.

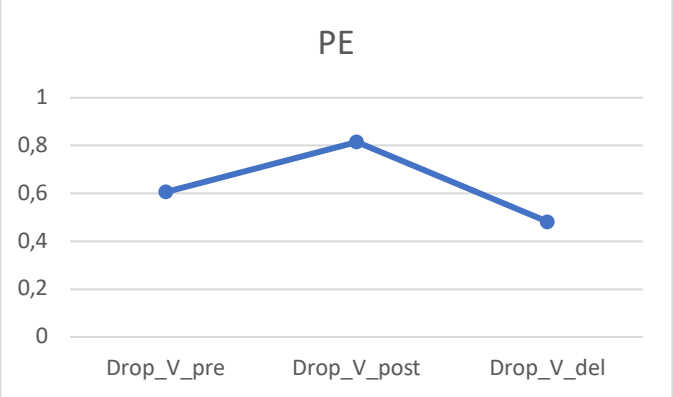
Table 6.49

Wilcoxon W Test PE Group V_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre % V_Drop	Post % V_Drop	Wilcoxon W	39.5 [a]	0.256	-0.690	0.281	-0.342
Post % V_Drop	Del %V_Drop	Wilcoxon W	86.0 [a]	0.148	0.748	0.238	0.433
Pre % V_Drop	Del %V_Drop	Wilcoxon W	30.5 [b]	0.799	0.190	0.302	0.109

Figure 6.34

Percentage of V_Drop errors in the PE group.



Finally, to compare percentage error reduction of V_Drop between groups, a Kruskal-Wallis test was run. Table 6.50 presents the descriptive statistics and the Shapiro-Wilk normality test PRE to POST, POST to DELAYED, and PRE to DELAYED in each group. A similar reduction is found

in the NF, ED and PE groups PRE to POST with the NF group recording the lowest percentage in error reduction and the SE group increasing the percentage of errors. All groups present a slight increase POST to DELAYED test except for the slight decrease in the SE group and a general decrease PRE to DELAYED test is found except in the NF group. Figure 6.35 visually illustrates error reduction for each group.

Table 6.50

Descriptives V_Drop error reduction

						Shapiro-Wilk	
	Group	**N**	**Mean**	**SE**	**SD**	**W**	**p**
Post-Pre % V_Drop	NF	22	-0.2423	0.558	2.619	0.906	0.039
	ED	23	-0.4965	0.361	1.731	0.945	0.232
	SE	26	0.2088	0.281	1.435	0.850	0.001
	PE	25	-0.2780	0.311	1.557	0.855	0.002
Del-Post % V_Drop	NF	22	0.8568	0.506	2.372	0.955	0.403
	ED	23	0.2687	0.384	1.842	0.938	0.166
	SE	26	-0.3338	0.238	1.213	0.906	0.022
	PE	25	0.0692	0.183	0.915	0.912	0.034
Del-Pre % V_Drop	NF	22	0.7127	0.372	1.746	0.968	0.663
	ED	23	-0.2278	0.361	1.730	0.916	0.056
	SE	26	-0.1242	0.302	1.539	0.776	< .001
	PE	25	-0.2088	0.248	1.241	0.931	0.091

Figure 6.35

Percentage of V_Drop error reduction in each group

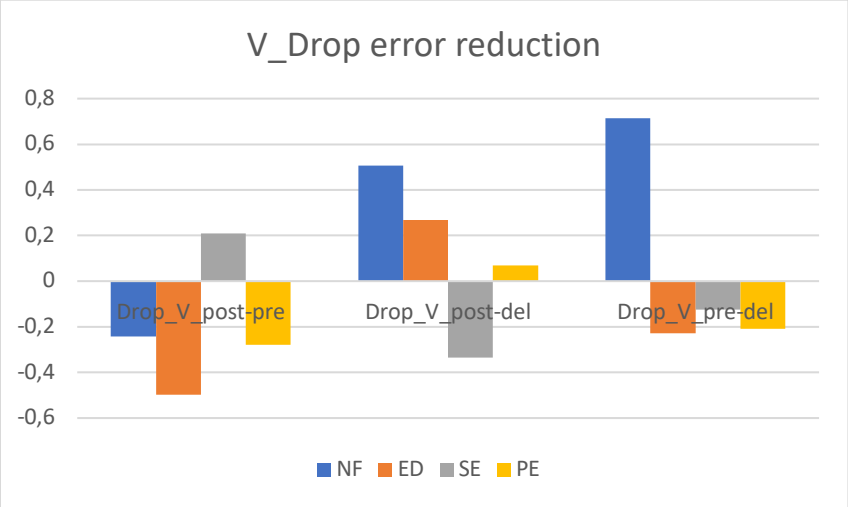


Table 6.51 indicates the results of the Kruskal-Wallis test. No significant differences were found between groups in the reduction in V_Drop errors PRE to POST test $\chi 2(3.22)$, $p = .359$ and PRE to DELAYED-test $\chi 2(7.37)$, $p = .061$, but a significant difference was found between groups at POST to DELAYED test $\chi 2(8.32)$, $p = .040$.

Table 6.51

Kruskal-Wallis V_Drop error reduction between groups

	χ^2	df	p	ε^2
Post-Pre %Drop V	3.22	3	0.359	0.0339
Del-Post %Drop V	8.32	3	0.040*	0.0876
Del-Pre %Drop V	7.37	3	0.061	0.0776

To identify where the significant differences were between groups at Post test, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.52 displays the observation of a marginally significant difference between the NF group and the SE group POST-to-DELAYED test.

Table 6.52

Pairwise comparisons - Del-Post % V_Drop errors

		W	p
NF	ED	-1.628	0.658
NF	SE	-3.408	0.057*
NF	PE	-2.667	0.234
ED	SE	-2.315	0.358
ED	PE	-0.825	0.937
SE	PE	2.097	0.448

6.1.6 Subject Drop errors

The sixth variable examined was subject drop (S_Drop) errors in the written productions, and whether any significant reduction existed across groups over the three data collection times. To accurately study error reduction for S_Drop, percentage of errors was calculated in relation to number of words produced in each written composition. The group descriptives across the three data collection instances are illustrated in Table 6.53 indicating a decreasing tendency in the ED and SE groups from PRE to POST tests. There are remarkable between-group differences from POST to DELAYED tests with the NF group showing a slight increase, whereas the ED, SE, and PE groups continue to indicate a decreasing tendency at DELAYED test. Figure 6.36 visually illustrates the error reduction for each group.

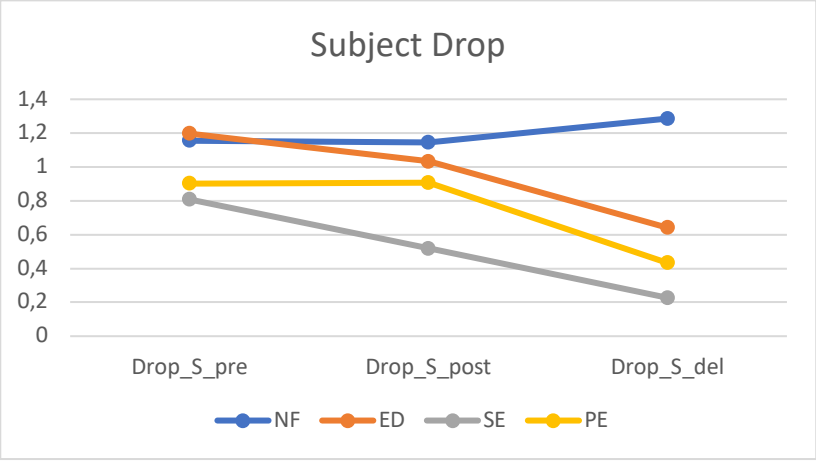
Table 6.53

Group Descriptives S_Drop errors

	Group	N	Mean	SE	SD
Pre %Drop S	NF	22	1.156	0.279	1.308
	ED	23	1.197	0.381	1.827
	SE	25	0.808	0.300	1.502
	PE	26	0.903	0.392	2.000
Post %Drop S	NF	22	1.145	0.310	1.454
	ED	23	1.033	0.268	1.286
	SE	25	0.519	0.199	0.993
	PE	26	0.907	0.272	1.384
Del %Drop S	NF	22	1.286	0.435	2.042
	ED	23	0.641	0.322	1.543
	SE	25	0.227	0.129	0.647
	PE	26	0.433	0.185	0.941

Figure 6.36

Percentage of S_Drop by time and group



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.54, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.54

Normality Test (Shapiro-Wilk) S_Drop errors

	W	p
Pre %Drop S	0.667	< .001
Post %Drop S	0.787	< .001
Del %Drop S	0.644	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis test was conducted to compare the mean percentage of S_Drop errors between groups at each data collection time. The results in Table 6.55 indicate no significant differences between groups at PRE-test $\chi2(2.40)$, $p = .493$ and at POST-test $\chi2(3.56)$, $p = .313$, but a significant difference at DELAYED-test $\chi2(9.80)$, $p = .020$. Figure 6.37 displays the percentage of errors in each group at each data collection time.

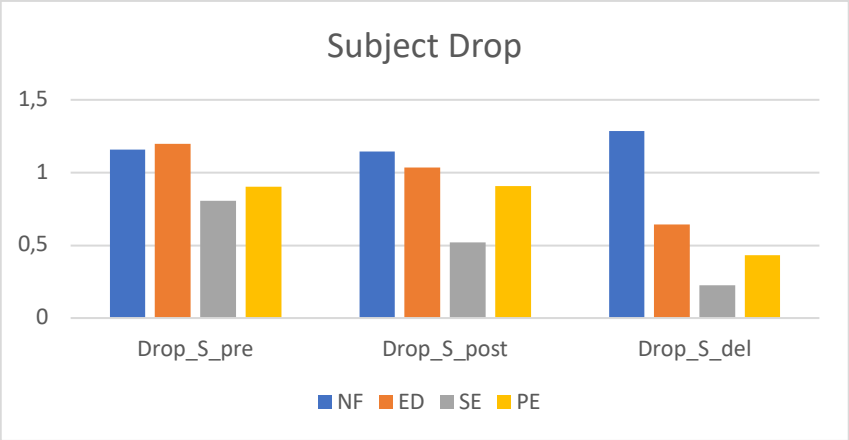
Table 6.55

Kruskal-Wallis S_Drop errors

	χ^2	df	p	ε^2
Pre %Drop S	2.40	3	0.493	0.0253
Post %Drop S	3.56	3	0.313	0.0374
Del %Drop S	9.80	3	0.020*	0.1032

Figure 6.37

Percentage of S_Drop errors by each group at each data collection time



To identify where the significant differences were between groups at DELAYED test, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.56 displays a significant difference between the NF group and the SE groups at Delayed-Post test.

Table 6.56

Pairwise comparisons – Pre % S_Drop errors

		W	p
NF	ED	-2.593	0.258
NF	SE	-4.034	0.023*
NF	PE	-3.063	0.133
ED	SE	-1.398	0.756
ED	PE	-0.450	0.989
SE	PE	0.999	0.895

Next, a Wilcoxon test was conducted within each group to evaluate the effect of time and intervention in the percentage of S_Drop errors within each group across the three data collection

times. The Wilcoxon test for the NF group presented in Table 6.57 showed no statistically significant decrease from PRE to POST test, p= 0.777, a non-significant increase from POST to DELAYED, p= 0.673 and a non-significant general development from PRE to DELAYED, p= 0.868. Figure 6.38 illustrates the time differences in the NF group.

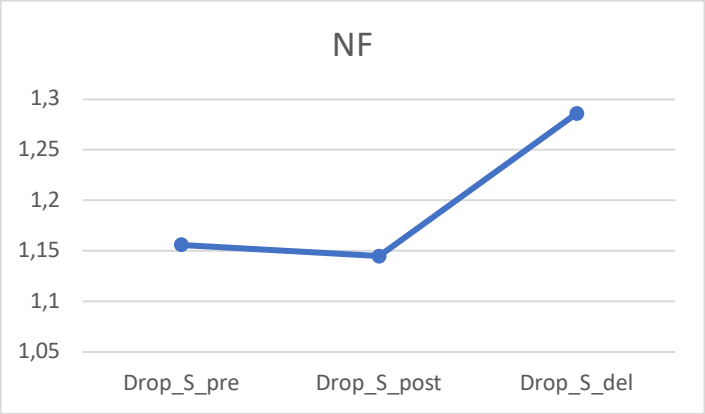
Table 6.57

Wilcoxon W Test NF Group S_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre %S_Drop	Post %S_Drop	Wilcoxon W	92.5 [a]	0.777	0.1101	0.448	0.0819
Post %S_Drop	Del %S_Drop	Wilcoxon W	72.5 [b]	0.868	-0.0850	0.350	-0.0523
Pre %S_Drop	Del %S_Drop	Wilcoxon W	106.0 [d]	0.673	0.3416	0.583	0.1158

Figure 6.38

Percentage of S_Drop errors in the NF group.



The Wilcoxon test for the ED group is presented in Table 6.58 and shows no statistically significant decrease in the percentage of S_Drop errors from PRE to POST test , *p*= 0.813, from POST to DELAYED, *p*= 0.109, or from PRE to DELAYED, *p*= 0.244. Figure 6.39 illustrates the time differences in the ED group.

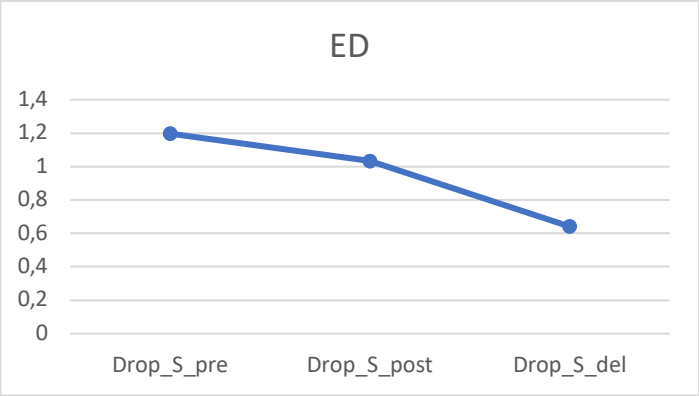
Table 6.58

Wilcoxon W Test ED Group S_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre %Drop S	Post %Drop S	Wilcoxon W	71.0 [a]	0.813	-0.0800	0.413	-0.0719
Post %Drop S	Del %Drop S	Wilcoxon W	78.5 [b]	0.109	1.0600	0.416	0.4952
Pre %Drop S		Wilcoxon W	81.0 [d]	0.244	1.0000	0.551	0.3500

Figure 6.39

Percentage of S_Drop errors in the ED group.



The Wilcoxon test for the SE group presented in Table 6.59 shows no statistically significant decrease in the percentage of S_Drop errors from PRE to POST test, *p*= 0.170, from POST to

DELAYED, *p*= 0.168, or from PRE to DELAYED, *p*= 0.079. Figure 6.40 illustrates the time differences in the SE group.

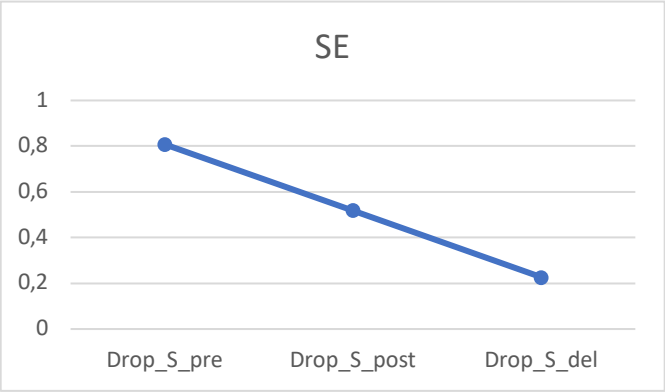
Table 6.59

Wilcoxon W Test SE Group S_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre %Drop S	Post %Drop S	Wilcoxon W	95.0 [a]	0.170	0.380	0.197	0.397
Post %Drop S	Del %Drop S	Wilcoxon W	49.0 [b]	0.168	0.751	0.246	0.485
Pre %Drop S	Del %Drop S	Wilcoxon W	81.0 [d]	0.079	1.065	0.333	0.543

Figure 6.40

Percentage of S_Drop errors in the SE group.



A final Wilcoxon test was run for the PE Group and is presented in Table 6.60. Results show no statistically significant decrease from PRE to POST test, *p*= 0.943, a statistically significant decrease from POST to DELAYED, *p*= 0.031 with a medium effect size (0.717), and no significant

general decrease from PRE to DELAYED, p= 0.112. Figure 6.41 illustrates the time differences in the PE group.

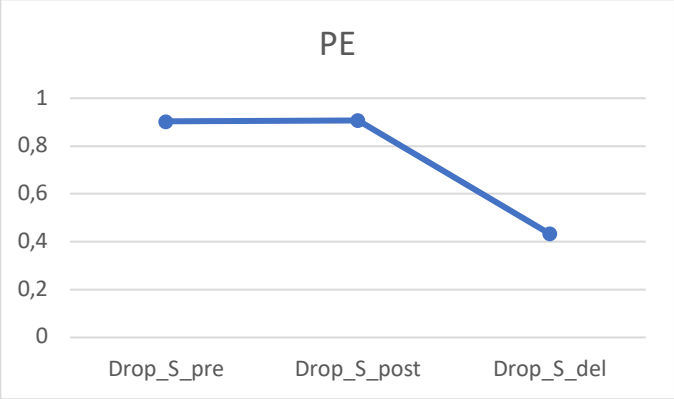
Table 6.60

Wilcoxon W Test PE Group S_Drop errors

			Statistic	p	Mean difference	SE difference	Effect Size
Pre %Drop S	Post %Drop S	Wilcoxon W	74.5 [a]	0.943	-0.0200	0.360	-0.0261
Post %Drop S	Del %Drop S	Wilcoxon W	67.0 [b]	0.031*	1.0390	0.247	0.7179
Pre %Drop S		Wilcoxon W	88.5 [d]	0.112	0.5629	0.336	0.4750

Figure 6.41

Percentage of S_Drop errors in the PE group



Finally, to compare S_Drop error reduction between groups, a Kruskal-Wallis test was run. Table 6.61 presents the descriptive statistics and the Shapiro-Wilk normality test PRE to POST, POST to DELYED, and PRE to DELAYED in each group. The group descriptives indicate a very little error reduction PRE to POST with the SE and ED groups reducing the most. The ED, SE, and PE groups

show very little error reduction from POST to DELAYED, and greater reduction is seen PRE to DEL in all groups except the NF group. Figure 6.42 visually illustrates error reduction for each group.

Table 6.61

Descriptives S_Drop error reduction.

						Shapiro-Wilk	
	Group	**N**	**Mean**	**SE**	**SD**	**W**	**p**
Post-Pre %S_Drop	NF	22	-0.01273	0.448	2.103	0.944	0.240
	ED	23	-0.38087	0.447	2.142	0.871	0.007
	SE	25	-0.29040	0.198	0.988	0.910	0.031
	PE	26	0.00385	0.360	1.834	0.885	0.007
Del-Post %S_Drop	NF	22	0.14045	0.350	1.643	0.933	0.140
	ED	23	-0.17565	0.388	1.862	0.728	< .001
	SE	25	-0.29200	0.246	1.228	0.742	< .001
	PE	26	-0.47423	0.247	1.258	0.802	< .001
Del-Pre %S_Drop	NF	22	0.12955	0.583	2.735	0.865	0.006
	ED	23	-0.55609	0.551	2.641	0.895	0.020
	SE	25	-0.58160	0.333	1.664	0.713	< .001
	PE	26	-0.46962	0.336	1.714	0.836	< .001

Figure 6.42

Percentage of S_Drop error reduction in each group

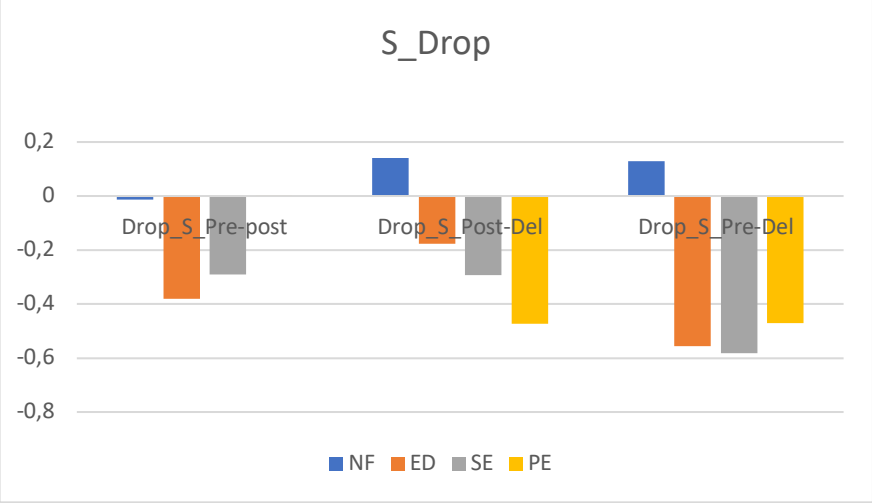


Table 6.62 indicates the results of the Kruskal-Wallis test. No significant differences were found between groups from PRE to POST test $\chi 2(0.9788)$, $p = .806$, POST to DELAYED test $\chi 2(1.0966)$, $p = .778$, or PRE to DELAYED-test $\chi 2(0.0889)$, $p = .993$.

Table 6.62

Kruskal-Wallis error reduction between-group S_Drop errors

	χ^2	df	p	ε^2
Post-Pre %Drop S	0.9788	3	0.806	0.0103
Del-Post %Drop S	1.0966	3	0.778	0.0115
Pre_Del %Drop_S	0.0889	3	0.993	9.36e-4

6.1.7 Total percentage of errors

The seventh and final variable examined was Total Percentage of errors (Total_Err) in the written productions as a general measure for improvement in accuracy over three data collection times. To accurately study error reduction for Total_Err, the total percentage of errors under focus was calculated in relation to the number of words produced in each written composition. The group descriptives for Total_Err across the three data collection times is illustrated in Table 6.63 and Figure 6.43 indicating a decreasing tendency in all groups from PRE to POST and PRE to DEL tests, particularly in the SE and PE groups. Similarly, there is a decreasing tendency from POST to DELAYED tests except for the NF group which recorded a slight increase.

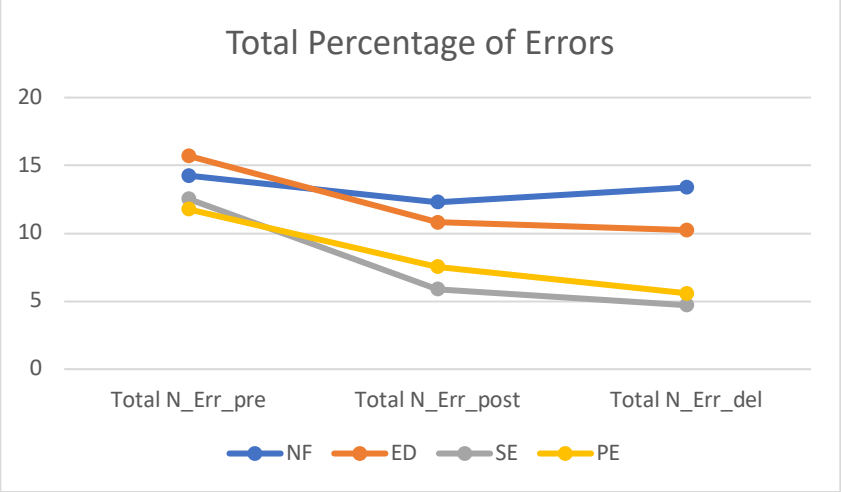
Table 6.63

Group Descriptives Total_Err between groups

	Group	N	Mean	SE	SD
PRE % Total Num_Err	NF	22	14.25	1.335	6.26
	ED	23	15.70	1.211	5.81
	SE	25	12.53	1.394	6.97
	PE	26	11.77	1.408	7.18
POST % Total Num_Err	NF	22	12.29	1.798	8.43
	ED	23	10.81	1.202	5.76
	SE	25	5.89	0.652	3.26
	PE	26	7.55	1.070	5.45
DEL % Total Num_Err	NF	22	13.39	1.762	8.26
	ED	23	10.24	1.459	7.00
	SE	25	4.71	0.779	3.89
	PE	26	5.59	0.910	4.64

Figure 6.43

Total percentage of errors by time and group



A normality test (Shapiro-Wilk) was run to test the distribution of the data. As can be seen in Table 6.64, since the *p* value was lower than 0.05 the data was acknowledged as non-normal; therefore, non-parametric tests were conducted next.

Table 6.64

Normality Test (Shapiro-Wilk) Total_Err

	W	p
PRE % Total Num_Err	0.903	< .001
POST % Total Num_Err	0.948	< .001
DEL % Total Num_Err	0.917	< .001

Note. A low p-value suggests a violation of the assumption of normality

A Kruskal-Wallis non parametric test was conducted to compare the mean percentage of Total _Err between groups at each data collection time. The results in Table 6.65 indicate significant differences between groups at PRE-test $\chi2(9.12)$, $p = .0028$ at POST-test $\chi2(13.28)$, $p = .004$, and at DEL-test $\chi2(26.87)$, $p = .0001$. Figure 6.44 displays the number of errors in each group at each data collection time.

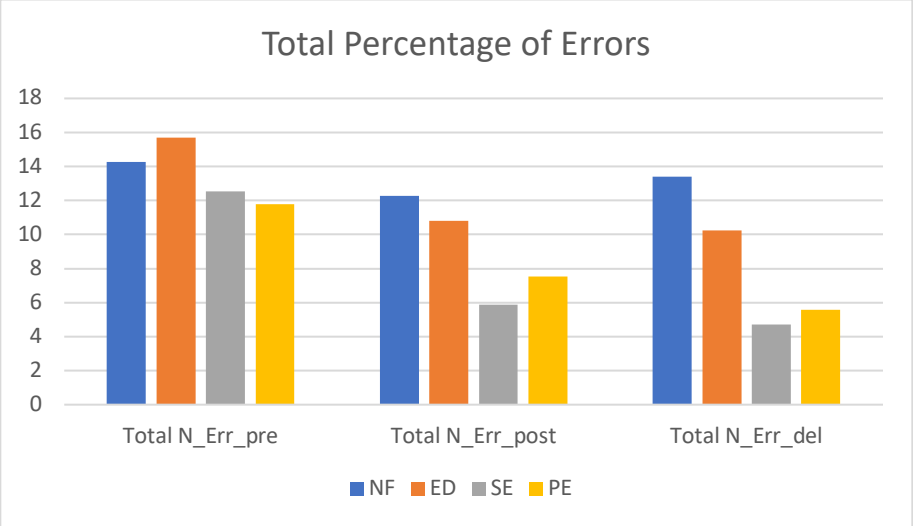
Table 6.65

Kruskal-Wallis Total_Err

	χ^2	df	p	ε^2
PRE % Total_Err	9.12	3	0.028*	0.0960
POST % Total_Err	13.28	3	0.004*	0.1398
DEL % Total_Err	26.87	3	< .001*	0.2828

Figure 6.44

Percentage of Total_Err by group and time



To identify where the significant differences were between groups, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.66 displays the observation of a marginally significant difference between the ED group and the PE groups at PRE-test.

Table 6.66

Pairwise comparisons - Pre % Total_Err

		W	p
NF	ED	1.24	0.819
NF	SE	-2.02	0.482
NF	PE	-2.33	0.354
ED	SE	-3.28	0.093
ED	PE	-3.58	0.055*
SE	PE	-1.36	0.772

Table 6.67 displays the Dwass-Steel-Critchlow-Fligner pairwise comparisons test, which yielded a significant difference between the ED group and the SE groups at POST-test.

Table 6.67

Pairwise comparisons - Post % Total_Err

		W	p
NF	ED	-0.482	0.986
NF	SE	-3.528	0.061
NF	PE	-2.721	0.218
ED	SE	-4.437	0.009*
ED	PE	-3.400	0.076
Se	PE	1.412	0.750

Table 6.68 displays the observation of a significant difference between the NF and the SE and PE groups, and between the ED group and the SE and PE groups at DELAYED-Post test.

Table 6.68

Pairwise comparisons - Del % Total_Err

		W	p
NF	ED	-2.25	0.385
NF	SE	-5.83	< .001*
NF	PE	-5.53	< .001*
ED	SE	-4.66	0.006*
ED	PE	-3.84	0.034*
SE	PE	1.19	0.836

Next**,** a Wilcoxon test was conducted within each group to evaluate the effect of time and intervention in the percentage of Total_Err within each group across the three data collection times. The Wilcoxon test for the NF group presented in Table 6.69 showed no statistically significant

decrease from PRE to POST test, p= 0.079, a non-significant increase from POST to DELAYED, p= 0.210, and a non-significant general development from PRE to DELAYED, p= 0.068. Figure 6.45 illustrates the time differences in the NF group.

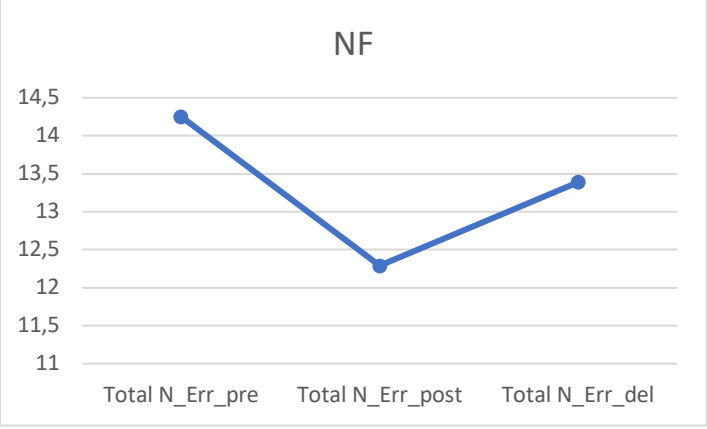
Table 6.69

Wilcoxon W Test NF Group Total_Err

			Statistic	p	Mean difference	SE difference	Effect Size
PRE % Total_Err	POST % Total_Err	Wilcoxon W	181.0	0.079	2.82	1.59	0.431
POST % Total_Err	DEL % Total_Err	Wilcoxon W	87.0	0.210	-1.75	1.37	-0.312
PRE % Total_Err	DEL % Total_Err	Wilcoxon W	183.0	0.068	1.81	1.48	0.447

Figure 6.45

Percentage of Total_Err in the NF group



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The Wilcoxon test for the ED group is presented in Table 6.70 and shows a statistically significant decrease from PRE to POST test, p= 0.004 with a medium effect size (0.66) and from PRE to

DELAYED, *p*= 0.003, also with a medium effect size (0.68), but not from POST to DELAYED, *p*= 0.754. Figure 6.46 illustrates the time differences in the ED group.

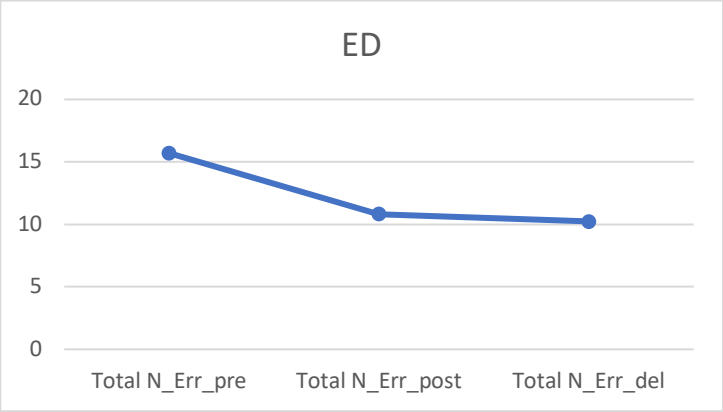
Table 6.70

Wilcoxon W Test ED Group Total_Err

			Statistic	p	Mean difference	SE difference	Effect Size
PRE % Total_Err	POST % Total_Err	Wilcoxon W	230	0.004*	4.323	1.44	0.6667
POST % Total_Err	DEL % Total_Err	Wilcoxon W	149	0.754	0.298	1.19	0.0797
PRE % Total_Err	DEL % Total_Err	Wilcoxon W	232	0.003*	5.332	1.61	0.6812

Figure 6.46

Percentage of Total_Err in the ED group.



The Wilcoxon test for the SE group presented in Table 6.71 shows a statistically very significant decrease from PRE to POST test and from PRE to DELAYED, *p*= 0.001, with large effect sizes (0.99 and 0.96), but no statistically significant decrease from POST to DELAYED, *p*= 0.220. Figure 6.47 illustrates the time differences in the SE group.

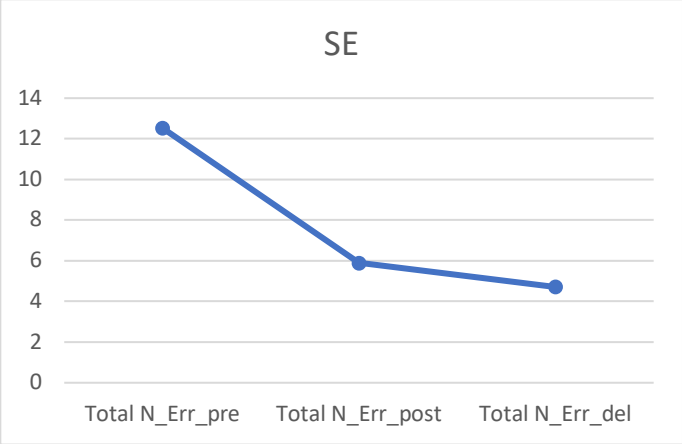
Table 6.71

Wilcoxon W Test SE Group Total_Err

			Statistic	p	Mean difference	SE difference	Effect Size
PRE % Total_Err	POST % Total_Err	Wilcoxon W	324	< .001*	5.655	1.093	0.994
POST % Total_Err	DEL % Total_Err	Wilcoxon W	209	0.220	0.905	0.866	0.286
PRE % Total_Err	DEL % Total_Err	Wilcoxon W	319	< .001*	7.135	1.334	0.963

Figure 6.47

Percentage of Total_Err in the SE group.



A final Wilcoxon test was run for the PE Group and is presented in Table 6.72. Results show a statistically very significant decrease from PRE to POST test, p= 0.001 with a large effect size (0.86), from POST to DELAYED, p= 0.013 with a medium effect size (0.55), and from PRE to DELAYED, p= 0.001 with a large effect size (0.91). Figure 6.48 illustrates the time differences in the PE group.

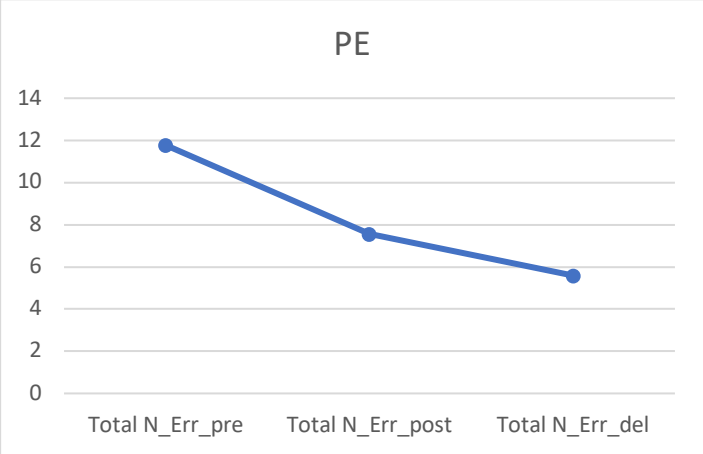
Table 6.72

Wilcoxon W Test PE Group Total_Err

			Statistic	p	Mean difference	SE difference	Effect Size
PRE % Total_Err	POST % Total_Err	Wilcoxon W	327	< .001*	3.77	1.049	0.863
POST % Total_Err	DEL % Total_Err	Wilcoxon W	272	0.013*	2.01	0.901	0.550
PRE % Total_Err	DEL % Total_Err	Wilcoxon W	336	< .001*	5.79	1.128	0.915

Figure 6.48

Percentage of Total_Err at the three data collection times in the PE group



Finally, to compare the percentage of Total_Err reduction between groups, a Kruskal-Wallis test was run. Table 6.73 presents the descriptive statistics and the Shapiro-Wilk normality test PRE to POST, POST to DELYED, and PRE to DELAYED in each group. The group descriptives indicate a similar reduction in all groups PRE to POST except in the NF group, with the SE group showing the highest reduction. From POST to DELAYED, total error reduction is minimal in all groups, except in the NF group, where there is a slight increase. The SE group is the group with the highest

reduction percentage of Total_Err PRE to DELAYED, followed by the PE and ED groups. Figure 6.49 visually illustrates error reduction for each group.

Table 6.73

Descriptives Total_Err reduction

						Shapiro-Wilk	
	Group	**N**	**Mean**	**SE**	**SD**	**W**	**p**
POST-PRE % Total_Err	NF	22	-2.628	1.834	8.60	0.952	0.343
	ED	23	-4.895	1.437	6.89	0.934	0.132
	SE	25	-6.642	1.093	5.46	0.801	< .001
	PE	26	-4.217	1.049	5.35	0.922	0.051
DEL-POST % Total_Err	NF	22	1.100	1.375	6.45	0.873	0.009
	ED	23	-0.568	1.187	5.69	0.942	0.194
	SE	25	-1.183	0.866	4.33	0.982	0.914
	PE	26	-1.967	0.901	4.60	0.943	0.161
DEL-PRE % Total_Err	NF	22	-1.529	1.658	7.78	0.823	0.001
	ED	23	-5.461	1.612	7.73	0.978	0.867
	SE	25	-7.826	1.334	6.67	0.818	< .001
	PE	26	-6.186	1.128	5.75	0.953	0.277

Figure 6.49

Percentage of Total_Err reduction in each group

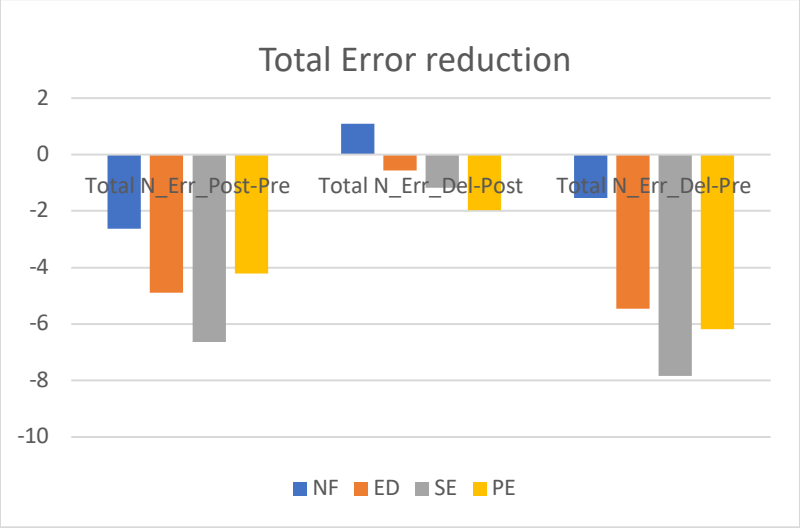


Table 6.74 indicates the results of the Kruskal-Wallis test. Non-significant differences emerged between groups PRE to POST test $\chi 2(5.10)$, $p = 0.165$ or POST to DELAYED test $\chi 2(6.68)$, $p = 0.083$, but a statistically significant difference was found between groups from PRE to DELAYED-test $\chi 2(10.45)$, $p = 0.015$.

Table 6.74

Kruskal-Wallis error reduction between group Total_Err

	χ^2	df	p	ε^2
POST-PRE % Total_Err	5.10	3	0.165	0.0537
DEL-POST % Total_Err	6.68	3	0.083	0.0704
DEL-PRE % Total_Err	10.45	3	0.015*	0.1100

To identify where the significant differences were between groups, Dwass-Steel-Critchlow-Fligner pairwise comparisons tests were run. Table 6.75 displays the observation of a significant difference between the NF group and the SE group from PRE to DELAYED-Post test.

Table 6.75

Pairwise comparisons – Del-Pre % Total_Err

		W	p
NF	ED	-2.135	0.432
NF	SE	-4.673	0.005*
NF	PE	-3.248	0.099
ED	SE	-1.664	0.642
ED	PE	-0.652	0.968
SE	PE	1.439	0.739

6.1.8 Summary of L2 accuracy results

In conclusion, the results showed no statistically significant differences between the four groups (NF, ED, SE, and PE) in the total number of words produced across the three data collection periods (PRE, POST, and DELAYED). All groups exhibited an increase in word production from PRE to POST, with the SE group showing the largest gains. The Wilcoxon tests revealed that all groups, except the PE group, made statistically significant gains in word production from PRE to POST. However, no significant gains were observed between POST and DELAYED tests across groups. The Kruskal-Wallis tests confirmed no significant differences between groups in word production gains over time.

The second variable examined was errors in 3rd person singular (3rd p_sing) in the students' written productions. Results indicate a general reduction in 3rd person singular errors across all groups over time, with the most significant changes occurring from PRE to DELAYED test. Although no significant differences were found between the groups at the pre- and post-test stages, a notable increase in errors was observed in the ED group at the delayed post-test, contrasting with the continuous decrease in the other groups. Pairwise comparisons further revealed significant differences between the ED group and both the SE and PE groups, particularly at the DELAYED post-test. Overall, while all groups showed some degree of improvement, the SE group achieved the most substantial error reduction. These findings suggest differential rates of improvement in mastering 3rd person singular forms across the groups over time.

The analysis of preposition errors (Prep) across different groups revealed that the SE group produced a significantly lower percentage of preposition errors than all other groups at the POST-test, while the NF group significantly made more errors than the other groups at the DELAYED-test. Wilcoxon tests for individual groups showed varying degrees of error reduction. The SE group

exhibited a significant decrease from the PRE-test to the POST-test and PRE-test to DELAYED-test but no significant change from POST to DELAYED-test. The ED group showed significant reductions from POST to DELAYED and PRE-test to DELAYED, while the PE group demonstrated substantial reductions from POST to DELAYED and PRE-test to DELAYED. The NF group showed minimal reduction across all stages. Overall, the SE group demonstrated the most consistent reduction in preposition errors across all stages, particularly from PRE to POST. The ED and PE groups showed substantial reductions from POST to DELAYED and PRE to DELAYED, with the ED group having the highest overall reduction.

As for Verb Drop (V_Drop) errors across different groups and times, the SE group notably demonstrated a significant reduction in errors, while the NF group showed a marginal decrease, and the ED and PE groups exhibited smaller changes. However, from POST to DELAYED tests, the V_Drop errors increased in the NF and ED groups, while the SE and PE groups maintained or slightly improved their performance. Statistical analyses revealed significant differences in error reduction, particularly between NF and other groups at different stages. The SE group emerged with the highest reduction in V_Drop errors from PRE to DELAYED tests, whereas the NF group had the least improvement overall.

The analysis of subject drop (S_Drop) errors across the three data collection points revealed a complex pattern of error reduction among different groups. The initial examination indicated a general decline in subject drop errors from the PRE to POST tests for the ED and SE groups, while the NF group showed a slight increase from POST to DELAYED tests. In contrast, the ED, SE, and PE groups continued to exhibit a decreasing trend in errors at the DELAYED test. Results also revealed no significant differences between groups at the PRE and POST tests but indicated significant differences at the DELAYED test, specifically, between the NF and SE groups.

Wilcoxon tests for individual groups provided further insights. The NF group showed no significant changes in S_Drop errors across the testing periods. Similarly, the ED and SE groups did not demonstrate significant changes from PRE to POST or POST to DELAYED. However, the PE group experienced a significant reduction in errors from POST to DELAYED. A comparative analysis of error reduction between groups indicated similar reductions from PRE to POST in the SE and ED groups, with the SE group showing the highest reduction.

The analysis of the Total Percentage of Errors (Total_Err) across three data collection points—PRE, POST, and DELAYED—revealed a general decrease from PRE to POST test and from PRE to DELAYED test, particularly in the SE and PE groups. The SE group demonstrated the most substantial decrease, achieving significant reductions from PRE to POST and from PRE to DELAYED tests, though changes between POST and DELAYED were not statistically significant. Conversely, the NF group showed a slight increase in error rates from POST to DELAYED, despite a reduction from PRE to POST. Results also revealed that the SE group consistently outperformed others in reducing errors, while the NF group experienced less improvement overall. The test results further underscored significant decreases in the ED, SE, and PE groups, with the SE group exhibiting the most pronounced reduction in errors from PRE to DELAYED. Overall, the data suggests that while most groups improved their accuracy over time, the SE group showed the most effective reduction in errors across all tests.

6.2 Motivation towards ESL writing

Research question two aimed to explore whether significant differences existed in relation to learners' motivation to engage in the writing activities of the intervention between and within the four groups across two data collection periods (i.e. pre and post-test). More specifically, we

used the Student Opinion Scale (SOS) (Sundre & Moore, 2002) to analyse the effect of the different types of feedback provision- Peer (PE), Self (SE) and Educator (ED) – and the No Feedback group (NF) on the development of importance given to (Imp) and effort invested (Efft) in the writing activities by the young learners at pre and post intervention conditions. The items within importance given (Imp) and effort invested (Efft) were calculated separately, and their scores were then combined to accurately compute the overall motivation score (Mot). A Saphiro-Wilk test was carried out for all variables and the data proved to be normally distributed, so statistical analyses include ANOVAs and Post Hoc Bonferroni tests in addition to paired sample t-tests to assess the impact of time and of the different types of WCF employed on learners' motivation towards writing activities.

6.2.1 Between-group analysis at pre-test

Descriptive statistics were computed for each group in the two components of motivation (i.e. importance, effort) (out of 25 each) and overall motivation (out of 50). Table 6.76 presents the descriptive data and Figure 6.50 is a representation of mean scores of motivation components between groups at pre-test.

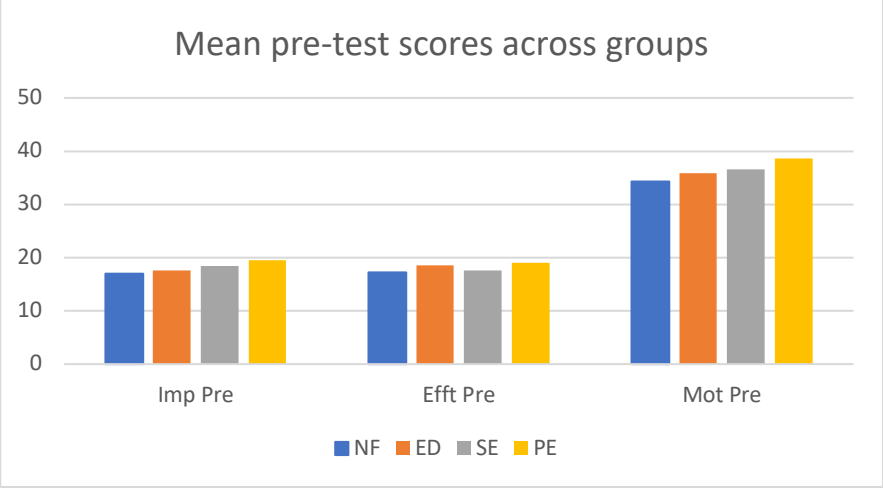
Table 6.76

Descriptive statistics for Imp, Efft and Mot across groups at pre-test

		N	Mean	Standard Deviation	Minimum	Maximum
ImpPre	NF	22	17.0455	2.64534	10.00	21.00
	ED	23	17.5652	2.88926	13.00	24.00
	SE	25	18.4400	3.69775	9.00	26.00
	PE	26	19.5000	2.56515	16.00	24.00
EfftPre	NF	22	17.2273	2.97500	12.00	23.00
	ED	23	18.5652	3.08701	13.00	24.00
	SE	25	17.6400	3.56931	12.00	22.00
	PE	26	19.0769	1.97834	16.00	23.00
MotPre	NF	22	34.2727	4.03770	27.00	42.00
	ED	23	35.9130	4.92593	26.00	45.00
	SE	25	36.5600	4.79653	23.00	44.00
	PE	26	38.6154	3.49945	33.00	46.00

Figure 6.50

Mean pre-test scores for Imp, Efft and Mot across groups



The PE group consistently obtained the highest mean scores across all three measures (ImpPre: M = 19.50, SD = 2.57; EfftPre: M = 19.08, SD = 1.98; MotPre: M = 38.62, SD = 3.50), indicating a higher perceived sense of importance, effort, and overall motivation compared to the other groups. In contrast, the NF group recorded the lowest mean scores, particularly in overall motivation (MotPre: M = 34.27, SD = 4.04).

A one-way ANOVA was conducted to examine differences between the four groups (NF, ED, SE and PE) on the three measures at the pre-test stage. For Imp, there was a statistically significant difference, $F(3, 92) = 3.13$, $p = .030$, indicating that the groups differed in how important they perceived the writing activities to be. For Efft, the differences between groups were not statistically significant, $F(3, 92) = 1.98$, $p = .123$. For Mot, a significant difference was observed between the groups, $F(3, 92) = 4.12$, $p = .009$, indicating variation in initial motivation levels across conditions. Post hoc comparisons using the Bonferroni correction were conducted to determine which specific groups differed. The PE group reported significantly higher importance and overall motivation scores than the NF group (p=034, p=0.005).

6.2.2 Between-group analysis at post-test

Table 6.77 and Figure 6.51 show the descriptive statistics for each group in relation to Imp, Efft and overall Mot at the post-test stage.

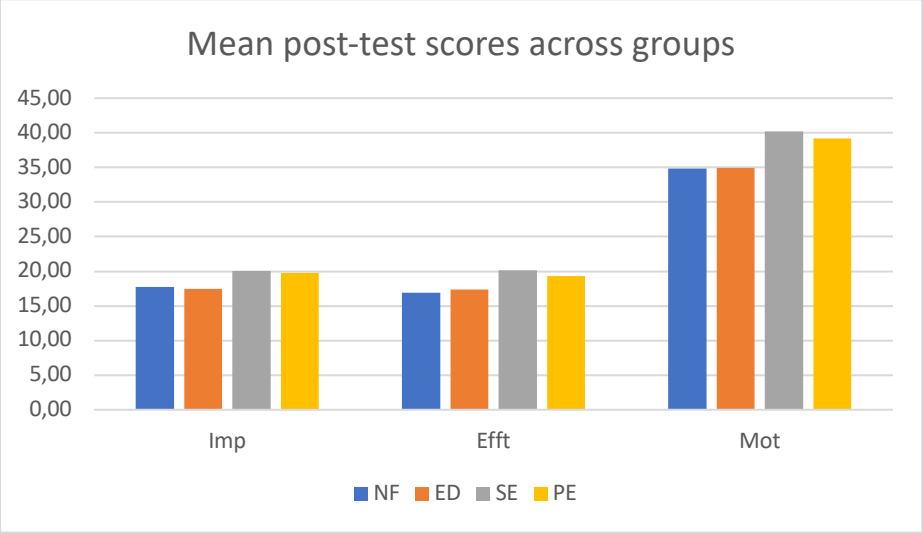
Table 6.77

Descriptive statistics for Imp, Efft and Mot across groups at post-test

		N	Mean	Standard Deviation	Minimum	Maximum
	NF	22	17.7727	3.51773	11.00	24.00
	ED	23	17.4348	4.08797	9.00	24.00
	SE	25	20.0800	2.73740	12.00	24.00
ImpPost	PE	26	19.8077	3.21272	13.00	25.00
	NF	22	16.9091	2.58031	11.00	21.00
	ED	23	17.3913	3.31305	7.00	23.00
	SE	25	20.1200	2.78867	13.00	25.00
EfftPost	PE	26	19.2692	2.30751	14.00	24.00
	NF	22	34.8182	4.45759	27.00	45.00
	ED	23	34.9565	5.48119	24.00	47.00
	SE	25	40.2000	4.11299	31.00	49.00
MotPost	PE	26	39.1538	4.38810	30.00	46.00

Figure 6.51

Mean post-test scores for Imp, Efft, and Mot across groups



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Regarding Imp, the SE group reported the highest mean score (M = 20.08, SD = 2.74), followed closely by the PE group (M = 19.81, SD = 3.21). In contrast, the NF and ED groups had lower mean scores (M = 17.77, SD = 3.52 and M = 17.43, SD = 4.09, respectively). These results suggest that participants in the SE and PE feedback conditions perceived the intervention as more important than those in the NF or ED groups. As for Efft, a similar pattern emerged. The SE group again scored highest (M = 20.12, SD = 2.79), followed by the PE group (M = 19.27, SD = 2.31). The NF group had the lowest Efft (M = 16.91, SD = 2.58), with the ED group slightly higher (M = 17.39, SD = 3.31). These findings indicate that students who received SE or PE feedback invested more effort on the intervention than those in the other two groups. For Mot, the SE group exhibited the highest overall motivation levels (M = 40.20, SD = 4.11). closely followed by the PE group (M = 39.15, SD = 4.39). The NF and ED groups reported substantially lower motivation (M = 34.82, SD = 4.46 and M = 34.96, SD = 5.48, respectively).

A one-way ANOVA was conducted to examine differences between the four groups (NF, ED, SE, and PE) at the post-test stage. For Imp, there was a statistically significant difference between the groups, $F(3, 92) = 3.84$, $p = .012$. For Efft, the differences between groups were also statistically significant, $F(3, 92) = 7.22$, $p < .001$, as well as for overall Mot, $F(3, 92) = 8.74$, $p < .001$, indicating that participants' motivation and perceptions of the teaching intervention varied significantly across the feedback conditions. Bonferroni post hoc comparisons revealed no statistically significant differences between groups for Imp, although the SE group rated the importance given to the intervention activities higher than the ED group with a marginally significant difference, $p = .051$. For Efft, the SE group reported significantly higher scores than both the NF group, $p = .001$, and the ED group, $p = .006$. Additionally, the PE group scored significantly higher than the NF group, $p = .024$. For Mot, the SE group reported significantly

higher motivation than the NF group, p = .001, and the ED group, p = .001. The PE group also showed significantly higher motivation than both the NF group, p = .010, and the ED group, p = .012.

6.2.3 Within-group analysis pre to post-test

In order to understand the development of Imp, Efft and Mot within each group, paired-sample t-tests were run. Table 6.78 presents the descriptive statistics at pre and post-test in the NF group, examining changes in Imp, Efft, and Mot. Very little development is observed, as also illustrated in Figure 6.52 and the paired-samples t-test yielded no significant differences for any of the measures (p = .361, p = .646 and p = .564, respectively).

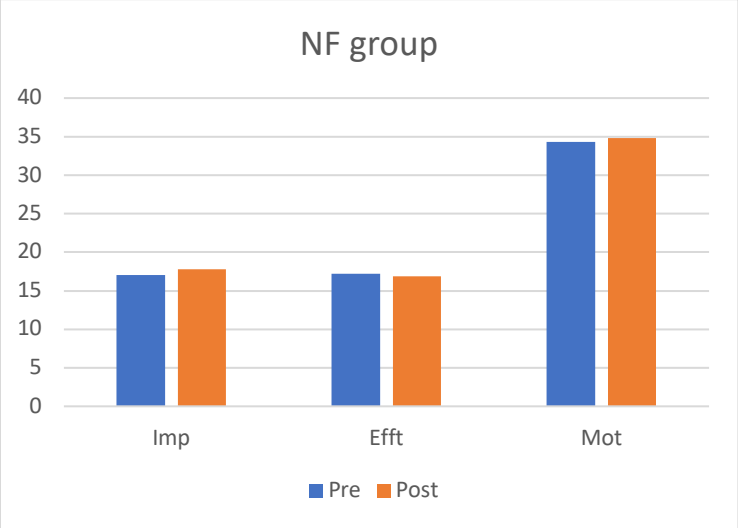
Table 6.78

Descriptive statistics NF group

NF group	Mean	N	Standard Deviation
ImpPre	17.04	22	2.64
ImpPost	17.77	22	3.51
EfftPre	17.22	22	2.97
EfftPost	16.90	22	2.58
MotPre	34.27	22	4.03
MotPost	34.81	22	4.45

Figure 6.52

Mean scores pre and post-test NF group



As for the ED group, Table 6.79 shows the descriptive statistics at pre and post-test. A slight decrease is observed in all three measures, as Figure 6.53 visually illustrates. The paired-samples t-test yielded no significant differences either for any of the measures (p = .844, p = .189 and p = .414, respectively).

Table 6.79

Descriptive statistics ED group

ED group	Mean	N	Standard Deviation
ImpPre	17.56	23	2.88
ImpPost	17.43	23	4.08
EfftPre	18.56	23	3.08
EfftPost	17.39	23	3.31
MotPre	35.91	23	4.92
MotPost	34.95	23	5.48

Figure 6.53

Mean scores pre and post-test ED group

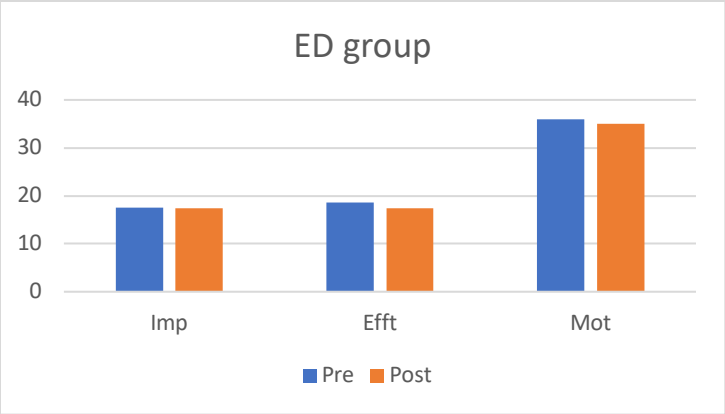


Table 6.80 shows the descriptive statistics at pre and post-test in the SE group, examining changes in Imp, Efft, and Mot. An increase is observed in all three measures in the SE group, as also illustrated in Figure 6.54. A paired-sample t-test showed significant increases pre to post-test in all three measures in the SE group (t(24) = -2.247, p = .034; t(24) = -3.494, p = .002; t(24) = -4.688, p = .000).

Table 6.80

Descriptive statistics SE group.

SE group	Mean	N	Standard Deviation
ImpPre	18.44	25	3.69
ImpPost	20.08	25	2.73
EfftPre	17.64	25	3.56
EfftPost	20.12	25	2.78
MotPre	36.56	25	4.79
MotPost	40.20	25	4.11

Figure 6.54

Mean scores pre and post-test SE group

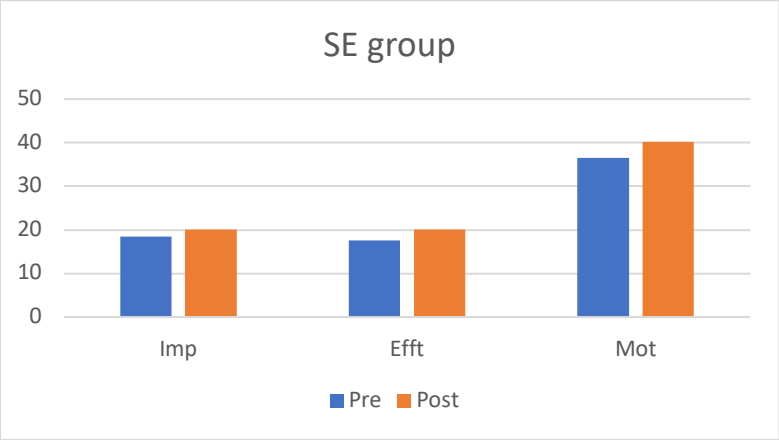


Table 6.81 shows the descriptive statistics at pre and post-test in the PE group. Small positive gains in all three measures were observed and illustrated in Figure 6.55. The paired-samples t-test yielded no significant differences either for any of the measures (p = .733, p = .694 and p = .648, respectively).

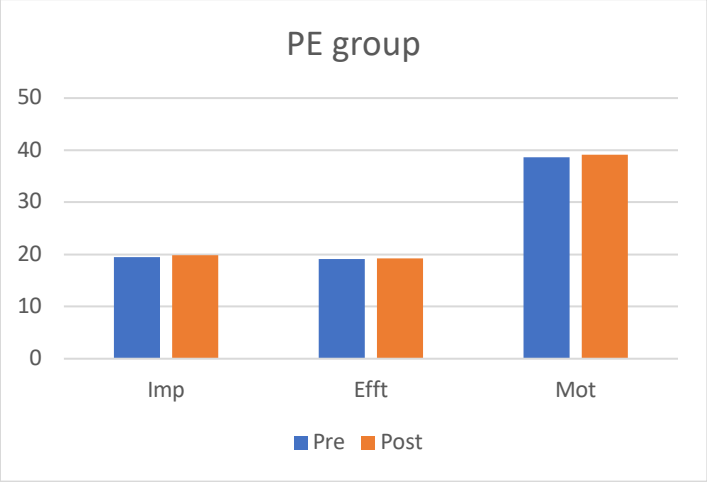
Table 6.81

Descriptive statistics PE group.

PE group	Mean	N	Standard Deviation
ImpPre	19.50	26	2.56
ImpPost	19.80	26	3.21
EfftPre	19.07	26	1.97
EfftPost	19.26	26	2.30
MotPre	38.61	26	3.49
MotPost	39.15	26	4.38

Figure 6.55

Mean scores pre and post-test PE group



6.2.4 Between-group analysis of development

To compare development across the three measures between groups, we calculated the mean difference between pre and post intervention scores for each measure. Table 6.82 presents the descriptive statistics of the gains pre to post intervention in each group. The SE group experienced the most significant gains across the three measures. In contrast, the ED group showed declines in all measures, particularly in Efft and overall Mot. The NF and PE groups displayed slight positive gains. Overall, the total mean differences across all participants were small and not statistically robust, which indicates that only the SE group demonstrated substantial and reliable improvements. Figure 6.56 visually illustrates the gains for each group.

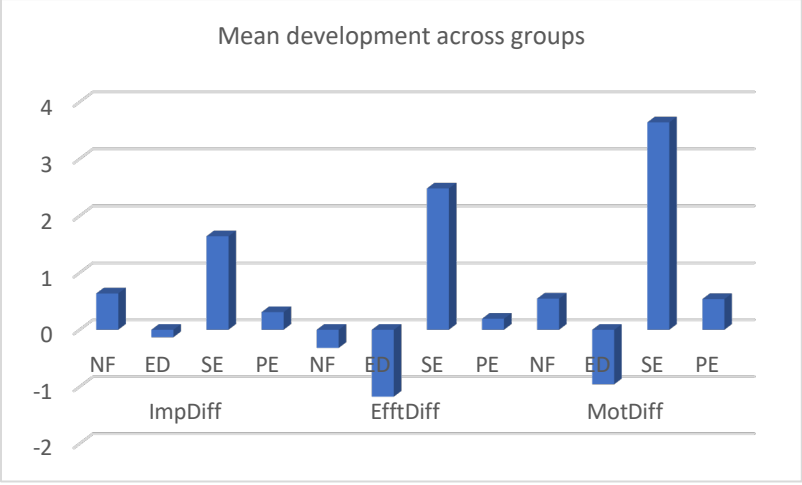
Table 6.82

Descriptive statistics for Imp, Efft and Mot pre to post mean differences across groups.

		N	Mean	Standard Deviation	Minimum	Maximum
ImpDiff	NF	22	.6364	3.30289	-7.00	6.00
	ED	23	-.1304	3.13781	-7.00	5.00
	SE	25	1.6400	3.65011	-8.00	8.00
	PE	26	.3077	4.54989	-11.00	8.00
EfftDiff	NF	22	-.3182	3.19801	-6.00	6.00
	ED	23	-1.1739	4.15224	-15.00	5.00
	SE	25	2.4800	3.54871	-5.00	10.00
	PE	26	.1923	2.46608	-4.00	4.00
MotDiff	NF	22	.5455	4.36138	-8.00	7.00
	Ed	23	-.9565	5.50602	-19.00	6.00
	SE	25	3.6400	3.88244	-3.00	14.00
	PE	26	.5385	5.94798	-13.00	11.00

Figure 6.56

Mean development scores for Imp, Efft and Mot across groups



To examine differences in development between the four groups, an additional ANOVA test was run. Results showed no significant difference in Imp gains, $F(3, 92) = 0.99$, $p = .400$, indicating that the intervention type did not impact the development in participants' perceptions of importance given to the activities in the intervention. However, there was a significant difference in Efft gains, $F(3, 92) = 5.19$, $p = .002$, and in Mot gains, $F(3, 92) = 3.61$, $p = .016$. Bonferroni post hoc comparisons revealed significant differences for Efft. The SE group obtained significantly higher gains compared to both the NF group ($p = .034$) and the ED group ($p = .002$). Similarly, for Mot, the SE group showed significantly higher gains compared to the ED group ($p = .012$), while other group comparisons were not statistically significant.

6.3 Young learners' attitudes towards different types of WCF

6.3.1 Perception survey: quantitative data

Research question 3 explored the children's preferences for different types of WCF and their attitudes towards the *Boomerang Feedback Strategy.* The quantitative data from the perception survey (on a 1-5 Likert scale) was analyzed based on the analysis of the three categories under investigation at post-test, as specified in Chapter 5: Usefulness, Improvement, and Error Understanding in regard to the use of the *Boomerang Feedback Strategy* and in particular for the self-correction (SE) and the (PE) peer-correction groups. The average scores of the six statements belonging to each category were calculated and are presented in Table 6.83. The SE group showed higher positive perceptions than the PE group and a stronger belief that self-correction as part of the *Boomerang Feedback Strategy* was useful and led to writing improvement and understanding of errors.

Table 6.83

Descriptive statistics Perception survey

	Group	N	Mean	SD
Usefulness	Self	25	3.43	0.35
	Peer	26	3.35	0.54
Improvement	Self	25	3.54	0.37
	Peer	26	3.25	0.43
Error Understanding	Self	25	3.56	0.43
	Peer	26	3.28	0.42

Shapiro-Wilk normality tests were run and since the data were normally distributed ($p > .05$), independent t-tests were performed to compare the scores between the SE and the PE groups in each category. Table 6.84 indicates that the SE group showed significantly higher scores in perceived writing Improvement and perceived Error Understanding than the PE group. In terms of Usefulness, the SE group also obtained higher results but they did not reach significance.

Table 6.84

Independent t-tests between the SE and PE groups

	t	df	p
Usefulness	.622	49	.537
Improvement	2.56	49	.013*
Error Understanding	2.25	49	.028*

Further t-tests were performed for each of the statements in each of the categories where significant differences between the two groups were observed (i.e. Improvement and Error Understanding) to explore which specific statements yielded significant differences. In the case of Improvement, only the statement on the effects of indirect feedback on improvement displayed significant differences between the groups ($t(49) = 2.67$, $p = .010$) with the SE obtaining higher scores ($M = 3.64$, $SD = 0.95$) than the PE group ($M = 2.76$, $SD = 1.33$). As for Error Understanding, significant differences

emerged in favour of the SE group in the statements on the perceived benefits of indirect feedback ($t(49) = 1.96$, $p = .055$), self-correction ($t(49) = 2.35$, $p = .022$) and the *Boomerang Feedback Strategy* ($t(49) = 3.25$, $p = .002$), with the SE group obtaining significantly higher scores ($M = 3.68$, $SD = 0.98$; $M = 4.32$, $SD = 0.69$; $M = 4.56$, $SD = 0.58$) than the PE group ($M = 3.15$, $SD = 0.92$; $M = 3.80$, $SD = 0.84$; $M = 3.96$, $SD = 0.72$).

6.3.2 Perception survey: qualitative data from open-ended questions

This section depicts a qualitative analysis of data investigating the young L2 learners' perceptions of self and peer correction strategies on their writing performance (i.e. groups SE and PE). The data collected involves responses from open-ended questions on learning English writing through self-correction or peer-correction, and whether it helped students improve their L2 writing. The analysis aimed to identify patterns and themes that emerged from the data in order to gain insights into the experiences of students who engaged in self and peer correction as part of the implementation of the *Boomerang Feedback Strategy*. In addition, the questionnaire sought to investigate the potential justifications for assessing the efficacy of the *Boomerang Feedback Strategy*, while also elucidating its implications for instructional practices in the classroom. More specifically, data collection was conducted via three concise, open-ended questions, which elicited responses from the study participants. As specified in Chapter 5, we asked the following questions:

(1) Do you think with the *Boomerang Feedback Strategy* you learned better than when you were not involved in the correction process? Why?
(2) Would you like to do this correction activity by yourself or with a peer? Why?
(3) Do you consider that peer-correction/self-correction helped improve your writing? Why?

Overall, the combination of reflexive and deductive approaches provided a comprehensive and nuanced understanding of the data, allowing for the identification of patterns and insights that may have been overlooked using a single method alone. The findings suggest that learning styles was the primary factor in shaping the participants' inclination towards a specific type of written corrective feedback. The results of the analysis are presented next, including a summary of the main themes that emerged from the data, along with illustrative examples and quotations that support each theme in addition to classroom implications of the findings.

Results will be presented for each learner profile/theme and sub-themes. The first question will discuss the sub-theme *Boomerang Feedback Strategy*, followed by the sub-themes in the second question, autonomy and collaborative learning, to understand whether learners would prefer to do the corrective feedback activity by themselves or with a peer. The third question will discuss the sub-theme improved L2 writing to study whether self/peer-correction helped improve participants' writing.

6.3.2.1 Analysis of learner perceptions of the *Boomerang Feedback Strategy* (Question 1)

For question one, regarding learners' perceptions on the *Boomerang Feedback Strategy*, analysis was conducted by examining the self-group first followed by the peer-group. Participants from the SE Group felt more confident in their abilities after using the *Boomerang Feedback Strategy.* For example, one participant mentioned that receiving indirect feedback from their teacher was an important aspect of using the *Boomerang Feedback Strategy*. They appreciated the opportunity to learn from their mistakes with the guidance of their teacher. They appreciated the opportunity to self-correct their work and learn from their errors. These participants also reported that receiving a final, direct feedback from their teacher was an important part of the *Boomerang*

Feedback Strategy. Self-correction also helped individuals to gain a better understanding of the L2 features under study.

Responses from the SE Group include: “I feel better when I do it myself.” (58), “Yes, it helped me so much because now I can correct.” (78). Participants in the SE Group also described how they were given the opportunity to self-correct their work using the *Boomerang Feedback Strategy*. They expressed that this helped them to take ownership of their learning and be more responsible for their work: “Yes, because the teacher gave me the paper and I corrected.” (62), Yes, because the teacher told me to correct myself.” (67), “I can correct the mistakes alone.” (69), “Yes, because I learned to check mistakes every time.” (64).

Participants within the SE Group indicated that they learned better with the *Boomerang Feedback Strategy* because they were able to identify and learn from their mistakes. Participants also indicated that they learned better by seeing and correcting their mistakes using the *Boomerang Feedback Strategy*: “Yes because I learned my mistakes and I corrected it.” (59), “Yes, when I correct them I can see my mistakes. Yes, it help me to learn better” (56), “Yes, I did because I got to find out and really explore my mistakes so I would not make them again.” (57), “Yes, it helped me so much because, some of the things I didn't know but know I can correct.” (76),

It is important to note that while the majority of participants in the SE Group reported positive experiences with the *Boomerang Feedback Strategy*, there were a very few (two out of the 25 participants (8%)) who indicated that they did not benefit much from the *Boomerang Feedback Strategy*, did not find it helpful and would prefer the teacher’s feedback: “I feel ok with the Boomerang, but when the teacher corrects I know the correct grammar and so on” (55), “No it didn't help me because not all my answers were wrong” (71). These few participants expressed

that self-correction did not significantly improve their writing. For example, one participant said, "No, not really. It helped a little. Because the teacher is much smarter than me" (55).

For question one, participants within the PE Group also indicated that they learned better with the *Boomerang Feedback Strategy*. They expressed that this is true because they were able to identify and learn from their mistakes. These participants also reported that receiving a final, direct feedback from their teacher was an important part of the *Boomerang Feedback Strategy*.

Responses for the PE Group for the *Boomerang Feedback Strategy* include: “Yes, because I love seeing my own mistakes and correct them.” (61), “Yes, because the teacher gave the paper I correct. (64), “Yes, I did because I benefit a lot from that practice.” (91), “Yes, the *Boomerang Feedback Strategy* helped me learn better.” (74), “Yes, because I learned to not write any mistakes.” (92), “Yes, I learned better because I understood English a lot better (101).

These participants also indicated that they learned better by seeing and correcting their mistakes using the *Boomerang Feedback Strategy*: “Yes, because I learned better and got good grades.” (60), “Yes, it help me to learn better, because I saw my wrong in an English test and helped me.” (70), “Yes, it did help me get better because I saw my mistakes and got better.” (86),), “Yes, I learned better because it helped me a lot and I understand my mistak.” (103), “Yes, I learned better because it helped me understand my mistakes.” (106).

Furthermore, only one participant from the PE Group (one out of the 26 participants (3.86 %) indicated not benefitting much from the *Boomerang Feedback Strategy*: “I don't think I learned better by correcting other papers” (98). Some participants from the PE Group mentioned that receiving the initial indirect feedback from their teacher was somewhat ambiguous because they had difficulty understanding the other’s mistakes.

To sum up, the reflexive thematic analysis of the data suggests that the *Boomerang Feedback Strategy* is an effective way to help students learn from their mistakes and improve their writing in the L2. The young learners under study in both the PE and SE Groups described how the *Boomerang Feedback Strategy* encouraged them to reflect on their mistakes and take responsibility for correcting them. These learners expressed that the *Boomerang Feedback Strategy* helped them to understand the importance of mistakes in the learning process. They appreciated the personalized nature of the *Boomerang Feedback Strategy* and felt that it allowed them to focus on their own individual mistakes and learn from them in a way that was tailored to their specific needs.

6.3.2.2 Analysis of learner preferences of self vs peer correction (Question 2)

Coming to question two, "Do you prefer self or peer correction? Why?", analysis was conducted by examining the self-group first, addressing both learner profiles: *Preference for self-evaluation and autonomy* and *Preference for peer correction and collaborative learning*, followed by the peer-group.

Participants from the SE Group within the learner profile, *Preference for self-evaluation and autonomy*, mostly indicated that they prefer self-correction. They reported that they enjoyed working alone and correcting their own mistakes because it was "peaceful and quiet", it gave them "better focus with little distraction", they preferred "correcting and learning from their own mistakes, or they were "not interested in other's mistakes". One learner said: "I personally prefer to work alone for peace and quiet." (55). Another learner expressed that "I would like to do mine by myself, because I can think about my answer instead of people telling me mine." (57). Others put forth similar answers for example: "With myself so I can see my mistakes and correct them."

(58), “on my own because I want to see my mistakes.” (59), “by my self because I like to focus and its better for me.” (63), “I like to do by myself, because it was peace.” (65), “I prefer by my self. Because it helped me learn my mistakes.” (67), “I prefer self because I can correct the mistakes alone.” (69), “alone because I don't like working with others” (71), “I would like to do this correction by myself, because I can look at my mistakes and correct them.” (77), “I would like to do the correction alone, because I trust myself correcting my mistakes.” (74), “ I would like to do this correction activity alone because it helps myself.” (79).

As for participants from the SE Group who were within the learner profile, *Preference for peer correction and collaborative learning*, they mostly indicated that they prefer peer-correction. Out of 25 learners in the SE Group, only four (16%) preferred the collaborative learning profile. These learners expressed that they would prefer working with a peer, while the other 20 learners (84%) expressed that they would rather work alone. Participants in the SE Group who preferred peer-correction stressed the social aspect of collaborative learning. For example, one learner said, “I like to correct my answer with my friend, because I and my friend we correct together” (60) while another learner expressed that “With my friend, because I like spending time with my friends and correct each other.” (64).

Mostly, learners who preferred self- correction uttered that alone is *peaceful* and *quiet*, and that correcting their own mistakes did *help them learn*, rather than correcting and looking into someone else’s mistakes. Participants in this group who preferred peer-correction stressed the social aspect of collaborative learning. For example, one learner said, “I like to correct my answer with my friend, because I and my friend we correct together.” (60) while another learner expressed that “With my friend, because I like spending time with my friends and correct each other.” (64).

From the PE Group, a high percent said they prefer peer-correction (18/26- 69.2%) falling within the learner profile, *Preference for peer correction and collaborative learning*. These participants valued the opportunity to work with a friend and learn from each other's mistakes. They also mentioned the fun factor associated with working with a friend. One idea that emerged was the importance of understanding corrections and how working with a peer could provide a better understanding of mistakes. Additionally, participants viewed peer-correction as a way to learn from both personal and others' mistakes. One learner said: “With my friend because they help me and I help them.” (86), while another learner stated that “I prefer with a friend because it is fun.” (88). Other learners had similar answers for example: “I like to correct with a friend because we learn from each others mistakes.” (90), “I prefer peer because I love helping my team.” (91). “I like with my friend becous we can understand the correction.” (93), “I prefer with a friend, I like it better with a person, because I stress a lot and they help me.” (96), “I would rather work with a peer because I would understand better if the peer Im working with knows the answer.” (98), “I would like peer, beccause team work makes the dream work. “ (101), “I prefer peer because I do it with my best friend and its fun.” (102), “I prefer peer because if I don't understand something I can ask them to help me.” (106), 2 I prefer peer, because my freind explains my mistakes that I have and it is fun.” (108), “I prefer to work in peer because I saw our both mistakes.” (109). Those learners who preferred peer correction mostly uttered that it was *fun* and they *helped each other learn*.

On the other hand, a good number of participants from the PE Group responded that they would have preferred working alone (8/26- 30.8%) falling within the *Preference for self-evaluation and autonomy*. Participants in PE Group who preferred self-correction indicated that correcting one’s own mistakes is *easier*. For example, one learner said, “by myself because it can

be easier to do it alone and it will be calmer." (85).); "I would like to do this correction by myself, because I can look at my mistakes and correct them." (77), "I would like to do the correction alone, because I trust myself correcting my mistakes." (74).

6.3.2.3 Analysis of learner perceptions on improvement in writing (Question 3)

As for question three, "Do you consider that peer-correction/self-correction helped improve your writing? Why?", analysis was conducted by examining the self-group first, addressing both learner profiles: *Preference for self-evaluation and autonomy* and *Preference for peer correction and collaborative learning*, followed by the peer-group.

Twenty-two (22/25- 88%) of the participants from the SE Group were within the preference for self-evaluation and autonomy learner profile. These learners believed that their writing improved. Participants from the SE Group mostly indicated that they think they improved their writing by attempting to self-correct. These learners indicated that correcting their own errors helped them understand their mistakes, which in turn prevented them from repeating the same errors again. One participant expressed that "yes I consider that self-correction helped improve my writing because it helps me understand my mistakes." (26). feedback helped them understand their mistakes and correct them.

One learner said, "Yes, because I can find out mistakes by ourselfs." (4). Another participant expressed that "Yes it helped a lot because I corrected my own mistakes and I see them." (5). Other young learners uttered the following: "Yes, because seeing my own mistakes cheered me up to get better." (8). "Yes, because I will never do that mistake again." (10), "Yes, because when I write my mistakes it made me write better." (12), "Yes, because I learned all my mistakes." (15), "Yes, because at first I was doing mistakes but on the last test I didn't do any

mistakes." (16), "Yes, it helped me improve because now I understand a lot more." (17), "Yes, I do it helped a lot because I undrestood my mistakes." (21), "yes I consider that self-correction helped improve my writing because it helps me understand my mistakes." (26). Learners in this group also expressed that they felt more confident in their abilities after using this approach. For example, one participant stated, "Yes, because It boosted me better writing." (9). Furthermore, participants expressed that doing these self-correction activities was very effective such that they would now use it to always to check their mistakes, check the teachers' feedback, and self-correct. For example, one participant indicated that "yes it helped and I can correct my mistakes always even for math test." (7). Participants under this profile also indicated that the indirect feedback helped them understand their mistakes and correct them. One learner said, "Yes, because when the teacher gave us the wrong answers I would understand better." (13).

Learners in the SE group also expressed that they felt more confident in their abilities after using this approach. Furthermore, participants expressed that doing self-correction activities was very effective in that they would now use it to always check their mistakes, check the teachers' feedback, and self-correct. For example, one participant said "Yes, because I learned to check mistakes every time." (11). Another learner indicated that "yes it helped and I can correct my mistakes always even for math test." (7). Participants under this profile also indicated that the indirect

From the SE Group, only three (12%) out of 25 learners wrote that they do not believe that doing self-corrections improved their writing, falling under the *Preference for peer correction and collaborative learning* profile. These learners who perceived self-correction as ineffective had difficulty correcting their own errors and consequently said, "No not really. It helped a little. Because the teacher is much much smarter then me." (1), "No because if I wrote my mistake wrong

I will learn it wrong." (21). Others who felt that they did not have a significant number of corrections to do also indicated that self-correction did not actually impact their writing positively expressing, "No, because I know English well." (18).

As for participants from the PE Group who were asked "Did peer correction help improve your writing? Why?", 88.5% (23 participants) fell under the *Preference for peer correction and collaborative learning* profile indicating that they learned and improved their writing by doing collaborative peer-correction attempts. They also thought that correcting together was fun, and they enjoyed helping each other. One learner said, "Yes because I solve each others mistake" (33). Another participant expressed that "yes I can see if I did it correctly and tell their mistakes." (34). Other participants also had similar opinions as follows: "Yes, because I saw their mistakes and they saw my mistakes and we corrected it all." (35), "Yes, because I can also see what they have done wrong." (41), "Yes, because we learn more while having fun." (45), "Yes, because I learned my mistakes from my friends." (46), "Yes because we were correcting together with each other." (51), "Yes, because we were correcting our answers we learned from each other." (52), "Yes, because my friend and I learnt more things and help each other." (57), "Yes, because I saw our both mistakes." (58).

From the PE Group, 3 participants (11.5%), fell under the *Preference for self-evaluation and autonomy* profile where only three students expressed a negative view of the correction efforts saying that they did not improve their writing. These three participants said: "No because I like by myself and I don't like to correct other people." (44), "No, because I am not better." (49), and "No, because I can still see that my writing is the same." (50).

In conclusion, the findings from the reflexive thematic analysis highlight the effectiveness of the *Boomerang Feedback Strategy* in fostering learner engagement, autonomy, and writing

improvement in an L2 context. The majority of participants in both the SE and PE Groups expressed that self- and peer-correction allowed them to actively reflect on their mistakes and take ownership of their learning, with a preference for self-correction emerging more strongly among SE learners and peer-correction among PE learners. While some participants found self-correction challenging and preferred direct teacher feedback, overall, the strategy proved to be a valuable tool for enhancing writing skills. These insights have important classroom implications, emphasizing the need for flexible feedback strategies that cater to diverse learner preferences while promoting self-regulated learning and collaborative engagement.

6.4 Focus group interviews

6.4.1 Data analysis method

To gain deeper insights into learners' perceptions of the different types of WCF, eight focus-group interviews were conducted—four with the PE groups and four with the SE groups. These interviews provided a platform for participants to express their thoughts, experiences, and preferences regarding the effectiveness of each type of WCF. The discussions were guided by eight questions aimed at uncovering the strengths and limitations of each approach, as well as exploring how they influenced students' learning and writing development. The guiding questions were the following:

(1) Which of the two types of corrective feedback did you like more: teacher or teacher-peer/self (Boomerang)? Why?

(2) Which of the two types of corrective feedback do you think helped you improve your writing? Why?

(3) Do you prefer direct feedback? Why?

(4) Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

(5) Would you rather the teacher corrected all your mistakes? Why?

(6) What did you like about peer /self-correction? Would you prefer to peer/self-correct?

(7) Did you enjoy the corrective feedback activities (Boomerang)? If not, why?

The interview data was collected in Armenian, the participants' native language, to ensure comfort, clarity, and a more natural expression of their thoughts and experiences. Following the data collection, the transcripts were carefully translated into English to facilitate analysis. The translation process aimed to preserve the accuracy and meaning of participants' responses, ensuring that their perspectives and insights were faithfully represented during the thematic analysis. Similar to the data from the short questions in the perceptions questionnaire, the data collected through focus group interviews was analyzed using a thematic analysis approach.

6.4.2 Codes and emerging themes: SE group

The focus group interviews from self-correcting (SE) groups revealed recurring ideas and patterns that were coded into specific themes. In most instances, one or two learners spoke up while the rest consented. As not every student talked or answered every question, answers are not coded to refer to the individual learner. *Self-correction preference* emerged as a dominant theme across all four groups. Participants consistently expressed a preference for correcting their own mistakes rather than relying on teacher corrections, as it helped them better understand their errors and promoted learning. For example, one participant stated, "We prefer to correct ourselves. Because we better understand our mistakes." (65) Another participant emphasized, "Correcting our own mistakes helped us improve our writing because we never look at the teacher’s corrections.

When we look at our mistakes and think about them and try to correct them we learn and we write better." (68)

Participants also highlighted the importance of *indirect feedback*, where teachers underline errors without providing immediate corrections. This form of feedback was valued because it encouraged participants to think critically about their mistakes and find solutions independently. One participant explained, "Better if the teacher underlines only because it makes us understand our mistakes and notice them." (62) Another added, "We prefer indirect feedback because it helped us understand our mistakes. It helped us think about the mistakes."(57)

Another recurring theme was *focused versus unfocused feedback*. While some participants did not initially notice focused feedback, most of them expressed appreciation for the teacher correcting only some mistakes. Focused feedback made the correction process manageable and reduced feelings of discouragement. For example, one participant stated, "I thought the teacher forgot them and I corrected the ones I noticed." (66) Another explained, "We liked focused because it helped us not feel discouraged when we see a lot of mistakes." (71) Similarly, another participant shared, "Focused feedback helped us not feel down when we see a lot of mistakes." (66), thus giving support to focused feedback.

Participants also shared strong views about *peer correction*, which emerged as a subtheme under self-correction. Across all groups, participants voiced a preference for working individually rather than correcting with peers. Many participants reported that peer correction could cause confusion, especially when disagreements over corrections occurred or when incorrect feedback was provided. Statements such as, “I want to see my own mistakes and not someone else’s” (59) and "If the other has made a mistake and my answer is correct, I will get mixed up” (62) highlight

the participants' concerns. Another participant explained, "Sometimes a peer gives incorrect feedback and I get more confused." (59)

Lastly, the overall experience of engaging in the *Boomerang Feedback Strategy* was consistently positive across all groups. Participants described the strategy as enjoyable, beneficial, and even fun. For instance, one participant stated, "It was like an adventure discovering our mistakes." (55) Another remarked, "We loved it very much. Teachers should use this strategy with all subject matters." (77)

In summary, the recurring ideas and themes include a preference for self-correction, the value of indirect feedback, an appreciation for focused feedback, a preference for individual correction over peer correction, and a positive overall perception of the *Boomerang Feedback Strategy*. These themes highlight the participants' desire for autonomy, active engagement in the learning process, and a structured yet supportive approach to corrective feedback.

6.4.3 Codes and emerging themes: PE group

The focus group interviews for the peer-correction (PE) group revealed several key themes regarding participants' perceptions of corrective feedback and the *Boomerang Feedback Strategy*. A dominant theme was the preference for *active involvement* in the correction process, with participants emphasizing that correcting mistakes fostered *deeper learning*, *autonomy*, and a *better understanding* of errors. Many noted that being involved in the correction process promoted ownership of their improvement process, as illustrated by comments such as, "We prefer to do the corrections ourselves, together with a peer" and "Correcting mistakes helped us improve our writing."

Related to this was the value of *indirect feedback*, where teachers underlined errors without providing immediate corrections. Participants appreciated this approach because it encouraged critical thinking and independent problem-solving. One participant explained, “Only underlining the mistakes helped us understand our mistakes and our friends’ mistakes. It made us think about the mistake,” (82) highlighting the role of indirect feedback in promoting active engagement.

Just like in the SE group, another significant theme was the participants’ views on *focused versus unfocused feedback.* While some students did not initially recognize focused feedback, most expressed appreciation for its benefits, as it made the correction process more manageable and reduced feelings of discouragement. For example, one participant stated, “Correcting only some of the mistakes was good because there weren’t many mistakes to correct.” (93) This theme suggests that focused feedback helps learners engage with their errors in a less overwhelming and more structured manner. Peer correction also emerged as a notable theme with mixed perceptions among participants. Many valued the collaborative nature of peer correction, appreciating the opportunity to work with peers and provide mutual support, as reflected in comments such as, “I liked working with a peer because we helped each other.” (82) However, others voiced challenges, including difficulties in correcting vague errors or understanding peers’ handwriting. As one participant noted, “It was difficult to correct the other’s mistakes especially when there were many.” (81) These mixed responses suggest that while peer correction fosters teamwork, it may require additional structure or support to overcome practical challenges.

Finally, the participants’ overall perception of the *Boomerang Feedback Strategy* was overwhelmingly positive. They described the strategy as enjoyable, beneficial, and even fun, with one participant stating, “It was like a game,” (88) while another remarked, “We learned a lot.” (84) This positive reception highlights the strategy’s effectiveness in engaging learners and supporting

their writing improvement. However, participants also suggested improvements to the strategy, such as incorporating more variety into the writing packs to ensure continuous learning. One participant remarked, “It would be better to change the type of writing pack questions between activities so that we learn new things.” (80) In summary, the key themes—preference for active involvement in correction, value of indirect feedback, appreciation for focused feedback, mixed perceptions of peer correction, and a positive view of the *Boomerang Feedback Strategy*—reflect participants’ desire for autonomy, structured support, and active engagement in the learning process. These findings underscore the importance of flexible and learner-centered approaches to corrective feedback.

6.4.4 Triangulating Data: Insights into Feedback Preferences and Challenges

To analyze how these qualitative findings relate to, corroborate, or challenge other findings from perceptions, the following points are considered. The qualitative data from focus group interviews aligns with the responses from the short-answer questions, reinforcing key themes such as the preference for self-correction, the value of indirect feedback, and the positive reception of the *Boomerang Feedback Strategy*. Both data sets indicate that learners in the SE group found indirect and focused feedback beneficial for learning, as it allowed them to engage critically with their errors without feeling overwhelmed, while learners in the PE Group found direct and focused feedback beneficial for learning, as it allowed them to understand the errors without feeling overwhelmed.

There was an alignment between short question responses and the interviews regarding reinforcement of the effectiveness of self-correction as well. The SE group’s emphasis on autonomy and deep learning through self-correction supports the findings from both data sources

suggesting learners felt more engaged when they were actively involved in identifying and correcting their errors. Their comments about learning better when they correct themselves corroborate perceptions that self-correction fosters retention and writing improvement.

There were some mixed perceptions of peer correction, as the qualitative findings from both data sets challenge any assumption that peer correction is universally beneficial. While the PE group appreciated collaborative learning, some students expressed concerns about incorrect feedback and confusion, which could lead to misunderstandings. This nuance highlights practical difficulties—such as confusion, incorrect feedback, and difficulty understanding handwriting. This suggests that while peer correction can be useful, it requires proper monitoring and scaffolding.

Finally, both data sets indicate thematic support for focused feedback. The idea that focused feedback is more manageable and less discouraging is reinforced by both SE and PE group discussions in both data sets. Students in both groups noted that having only some mistakes corrected helped them engage in the process without feeling overwhelmed—this further substantiates previous findings that excessive corrections can be demotivating.

In conclusion, implications for the *Boomerang Feedback Strategy* in both qualitative data sets and for the two experimental groups is that the Boomerang corrective feedback approach is enjoyable and beneficial. The focus group interviews largely corroborate the perceptions data from the questionnaire, particularly regarding the value of self-correction, indirect feedback, and focused feedback. However, they also introduce important challenges regarding peer correction, suggesting that while collaborative learning is beneficial, it must be carefully structured to avoid confusion. The overwhelmingly positive reception of the *Boomerang Feedback Strategy* across both groups further reinforces its effectiveness as a feedback tool. Chapter 7 will discuss the findings in relation to the research questions which guided the study and previous research.

CHAPTER 7

DISCUSSION

7.1 Chapter Overview

This chapter is devoted to the discussion of the results in light of the initial hypotheses and research questions. The discussion also considers how the results align with or challenge existing empirical findings related to second language acquisition, L2 writing, WCF, and learner motivation. Key contextual factors, such as the socio-educational setting in Lebanese private schools, are acknowledged when interpreting the findings and their applicability to other ESL contexts. Following this, the chapter presents practical implications and suggestions for ESL educators well as the educational institutions.

7.2 The impact of the *Boomerang Feedback Strategy* on L2 writing accuracy

Research Question 1 aimed to explore the effect of type of corrective feedback on young ESL learners' accuracy in writing. We hypothesized that students participating in the *Boomerang Feedback Strategy* through self and peer-correction particularly would demonstrate greater gains in writing accuracy than those receiving only educator feedback or no feedback, as has been found for adult and adolescent students (Dewi 2020; Yanti et al., 2022). The findings from the experimental study support this hypothesis in the sense that results show an overall decrease in target errors from T1 at the beginning of the study, to T3 after a 3-month period in the three experimental groups but not in the control group. Given the fact that scholars have emphasized the overwhelming importance of WCF on L2 acquisition (Cohen & Cavalcanti, 1990; Ferris, 1995; Ferris, 2002), we posited that WCF in general may contribute to the improvement in L2 written

production (Ferris et al, 1997). In addition, learners who receive direct WCF tend to perform significantly better than no feedback groups (Carrol & Swain, 1993). Furthermore, focused WCF has been shown to facilitate L2 learning (Bitchener, 2008; Sheen, 2007).

Initial results indicated that, for percentage of total number of errors, no significant differences were found between groups at T1, a significant difference was found between the ED and the SE groups at T2 and a significant difference between the NF and the ED groups and the SE and PE groups at T3 with the SE and PE groups recording the highest reduction in total number of errors. Furthermore, there were statistically significant differences in error reduction from T1 to T3 between the NF group and the SE groups with the SE group showing the most reduction and almost no reduction for the NF group.

Within-group analysis for percentage of total number of errors showed no statistically significant decrease for the NF group. The ED group showed a statistically significant decrease from T1 to T2 and from T1 to T3 but not from T2 to T3. The SE group showed a statistically very significant decrease from T1 to T2 and from T1 to T3 but no statistically significant decrease from T2 to T3. As for the PE group, results showed a statistically very significant decrease throughout testing times. These results reinforce the understanding that language acquisition is a gradual process that unfolds over time through repeated exposure, practice, and feedback. Improvement in L2 writing does not occur instantly, especially for younger learners who are still developing cognitive, linguistic, and metalinguistic awareness. Research has consistently shown that learners need sustained engagement with the language and multiple opportunities to apply corrective feedback for improvement to become visible (Ellis, 2008; Ferris, 2011). The variation across groups, particularly the delayed but steady gains in some, suggests that while learners respond to instruction and feedback, they may require longer periods of practice and reinforcement.

The SE group is the group with the highest reduction percentage of total number of errors. These results highlight learner perceptions in the SE group who found self-correction beneficial. The findings of this research also suggest that self-editing not only contributed to a greater reduction in errors over time but also appeared to foster enhanced learner motivation and more positive perceptions of the self-correction process. This implies that engaging learners in actively correcting their own errors may have dual benefits such as, improving accuracy and reinforcing a sense of autonomy and responsibility in language learning. These results are in accord with Ferris and Roberts (2001) whose findings indicated that self- correcting groups of university students receiving three different feedback conditions showed significantly better performance in L2 writing compared to the group without feedback when it came to self-editing. Furthermore, research conducted with university students by Hanrahan and Isaacs (2001), Kubota (2001), and Maftoon, Shirazi, and Daftarifard (2011) as well as young learners (Chang et al., 2009; Teng et al., 2022) has shown the positive effects of self-correction, including a decrease in the number of errors made by students. These results also align with Cahyono and Amrina (2017) who investigated the effectiveness of peer feedback and self-correction on the writing ability of university students and whose results showed that learners who self-corrected had better scores in writing essays than those who did not conduct self-correction.

Notably, there was a clear reduction in the total percentage of errors from the T1 to T3, suggesting that learners improved their L2 writing accuracy over time. While self-correction strategies and peer feedback played a key role in this development, it is important to emphasize the contribution of the explicit grammar instruction prior to the intervention as part of the research design. By explicitly teaching and drilling specific L2 features such as third person singular and article application among others, learners were provided with rule-based knowledge that likely

enhanced their ability to correct their own errors. This targeted support may have been particularly effective for treating rule-governed error. As a result, the observed improvements may not be solely attributed to feedback strategies but also to the foundational grammatical awareness established through instruction. These findings underscore the importance of integrating explicit grammar instruction alongside learner-led revision practices to maximize grammatical accuracy and support the long-term development of writing proficiency in young L2 learners (Sumida, 2018; Trang & Barrot, 2023).

Total number of words produced in students' writings was analyzed as a baseline to calculate the percentages for each variable but also as a general indicator of their L2 writing ability. Although initial results showed no statistically significant differences between the groups at any of the three times, tests conducted within each group demonstrated statistically significant gains from T1 to T2 for all experimental groups, but not for the control group (NF), which showed a less marked increase. These gains suggest that all experimental conditions involved in active engagement in WCF provision helped support learners in generating longer written texts. Among the groups, the SE group demonstrated the highest increase in total number of words from T1 to T3, suggesting that involving learners in self-feedback may encourage sustained development in writing. In contrast, the ED group exhibited the least growth from T1 to T3, and no statistically significant gains were found from T2 to T3 in any of the groups, suggesting that most improvements occurred during the initial intervention period and were sustained over time.

These findings align with earlier research indicating that learner involvement in feedback, whether through peer or self-assessment, can enhance writing and also encourage learners to produce more text (Plonsky et al., 2020). The study by Plonsky, Criado, & Garcés-Manzanera (2022) provides parallels with the impact of the *Boomerang Feedback Strategy* on young learners'

improving the volume of their written production, with the self-editing group showing a higher volume. Their study on young L2 learners revealed that those engaged in self-editing exhibited greater writing fluency and produced a higher volume of text compared to those receiving model-based feedback.

Moreover, two recent studies by Masrul et al. (2024) and Masural and Erliana (2024) provide compelling evidence on the impact of WCF on writing. Their study found that indirect WCF significantly improved students' written output, as measured by the total number of words produced, indicating that engaging learners in the revision process through feedback can promote increased writing volume over time. Our findings also align with sociocultural views of learning, which highlight the role of active learner engagement and feedback in developing language skills (Vygotsky, 1978; Hyland & Hyland, 2006). In line with the literature, our results suggest that WCF not only aids in error correction but also encourages learners to produce more text. Moreover, the results propose that even at an early stage of language development, young ESL learners can benefit from taking greater responsibility for revising their own texts. However, the lack of significant differences between groups indicates that while employing the *Boomerang Feedback Strategy* contributed to increased word count, none of the experimental groups demonstrated a superior effect in terms of written volume. It is important here to mention that growth in word count alone does not necessarily reflect improved accuracy or quality, but it remains a relevant indicator of learners' growing confidence and willingness to write more in English.

Having discussed findings on general error reduction and increase of total number of words, this section also analyzes error reduction across the various linguistic L2 features under study. As for errors in third person singular (3rd p_Sing), significant reductions were observed across the three data collection points in addition to group variations. There was a decreasing

tendency in all groups from T1 to T2. Similarly, there was a decreasing tendency from T2 to T3 except for the ED group which recorded an increase. Notably, significant differences emerged at T3 between the ED group and both the SE and PE groups, with the latter groups demonstrating greater error reduction in third person singular usage.

Within group analysis showed no significant decrease for the NF group in the percentage of errors in 3rd p_sing across all times highlighting the need for WCF provision for improvement in L2 writing accuracy. For the ED group, a statistically significant decrease was observed from T1 to T2 but not from T2 to T3 or from T1 to T3. This might underscore the need to more than just WCF provision by the educator. In the SE group, there was no significant decrease from T1 to T2, but a significant decrease from T2 to T3 and a very significant decrease from T1 to T3 indicating the need for practice and feedback literacy for extended results. As for the PE group, results showed a significant decrease from T1 to T2, a very significant decrease from T1 to T3, but there was no significant decrease from T2 to T3. This shows the need to vary the types of WCF utilized for optimum and sustained outcomes. It is worth mentioning that the SE group is the group with the highest reduction in errors for 3rd p_sing. Hence**,** these findings suggest that learner involvement in feedback, particularly through self- and peer-correction, may contribute more effectively to sustained L2 accuracy compared to no feedback or only depending on educator feedback. These findings support the claim by Ferris (1999) who suggests that 3rd p_sing errors are treatable errors because they are rule-governed. Such errors follow specific, consistent grammatical rules that learners can learn and apply systematically. Because the rule for forming the third person singular (adding **-s** or **-es** to verbs, e.g., *he runs*, *she watches*) is straightforward and predictable, these errors are easier to identify and are therefore more amenable to correction when learners engage directly

with feedback, as they can internalize and apply these rules during self- or peer-correction activities.

Further empirical evidence supporting the improvement of 3rd p_Sing usage in young L2 learners through instructional interventions is found in various studies. For example, Kelly (2017), who studied young learners and Lira-Gonzales et al. (2024) with adults, who, similar to our results, found that different forms of WCF led to significant improvements in learners' accurate use of this grammatical feature, highlighting the effectiveness of targeted feedback in enhancing 3rd p_Sing accuracy. These studies underscore the fact that that, despite the challenges associated with acquiring rule-based L2 features like the 3rd p_sing, appropriate instructional strategies and feedback mechanisms can facilitate significant improvement in L2 accuracy.

The next variable under investigation was article errors in the written productions, and whether any significant reduction existed across groups over the three data collection times. Results showed a decreasing tendency in article errors in all groups from T1 to T2 but there were no remarkable differences between groups from T2 to T3 indicating little to no additional improvement, meaning the gains did not significantly continue or increase after the initial improvement phase.

There was a significant difference between groups only at T3. Between the three data collection instances there were similar slight error reduction in groups from T1 to T2 for the SE and PE groups with the ED group recording the lowest percentage in error reduction. The ED group showed no reduction from T1 to T2 with similar results in the NF group from T1 to T3. More specifically, significant differences were found between the NF and the SE and PE groups in article error reduction at T3. The SE group had the highest reduction in article errors, and the NF group had the least improvement.

Within-group analysis showed a statistically significant difference from T2 to T3 for the NF group, but with an increasing tendency. As for the ED group, results showed no statistically significant decrease at any of the times, while the SE group showed a statistically significant decrease in the percentage of article errors from T1 to T2, but not from T2 to T3 or from T1 to T3. This result can be explained by the limited number of article errors, likely because most of the article errors were already corrected by T2, leaving few errors to improve upon afterward. As for the PE group, results showed no statistically significant decrease at any of the three times, which was unexpected.

The findings indicate that self-editing led to the most durable learning gains in article accuracy, with improvements sustained through to the delayed post-test. Peer editing also proved effective, though slightly less so than self-editing. In contrast, teacher editing was not as impactful, possibly because learners remained passive recipients of corrections rather than actively engaging with their own errors. The group that received no feedback showed no improvement, highlighting again the importance of involving learners in the correction process to foster meaningful progress in writing accuracy.

These results align with Tanveer et al. (2018), who investigated the impact of direct and indirect WCF on low-intermediate EFL learners, focusing specifically on articles, and their findings revealed that both types of WCF led to significant reductions in article errors compared to a control group. A similar study by Bitchener and Knoch (2008) examined the effects of focused WCF on the acquisition of English articles among adult ESL learners. Learners who received direct written corrective feedback on article usage demonstrated significant improvement in their accurate use of articles over time, compared to those who did not receive such feedback. The absence of statistically significant error reduction in the ED group across the three time points

suggests that educator-provided feedback alone may not have sufficiently engaged learners in the cognitive processes necessary for long-term learning and internalization. This result aligns with literature suggesting that while educator's direct corrective feedback is often helpful in the short term, it can sometimes be received passively, particularly when it is direct and does not require the learner to reflect or make decisions during revision leading to surface-level corrections rather than deep processing (Bitchener & Knoch, 2010). In contrast, self and peer feedback involve learners more actively, requiring them to notice, analyze, and evaluate errors, which are key processes for L2 development (Ellis, 2009; Van Beuningen et al., 2012). This might explain why those groups showed better gains in accuracy in articles.

Our next variable was percentage of preposition errors. Results indicated a decreasing tendency in all groups from T1 to T2 and fewer differences from T2 to T3. Between group comparisons showed a significant difference between the SE group and all the other groups at T2. These findings suggest that self-editing was the most effective approach in reducing preposition errors during the intervention phase, while other forms of feedback like educator or peer, were comparatively less effective. At T3, the PE and ED groups reached the SE group and all three groups were significantly better than the NF group in terms of preposition error reduction. These results are in line with Al Harrasi (2019), whose quasi-experimental results indicated that both direct and indirect WCF had a positive impact on students' grammatical accuracy during revision for prepositions. Conesa, Manchón, and Cerezo (2019) also found that university students who received direct and indirect feedback successfully corrected prepositions errors in their writing.

Within-group results indicated no statistically significant decrease in the NF group while the ED and PE groups showed a significant reduction from T2 to T3 and from T1 to T3. The SE group showed the greatest reduction from T1 to T2 and kept it through T3. The general significant

reduction in experimental groups from T1 to T3 further stresses the need for extensive practice when it comes to preposition errors as they are not rule-governed (Ferris, 1999). Likewise, the results are in line with Sheen (2007; 2009) who found that experimental groups of university students improved in grammatical accuracy, including prepositions, over time regardless of the type of feedback, with the focused feedback group recording better improvement compared to the unfocused feedback group and the writing practice group.

Dropping the verb from sentences (V_Drop) was our next type of L2 errors. Except for the NF group, all the other groups were found to generally (but non-significantly) decrease their V_Drop errors from T1 to T3, creating a significant difference between the NF and the SE and PE groups at T3. However, within-group comparisons did not yield any significant differences between times in any of the groups. Although dropping the verb is related to sentence structure, and this kind of mistake can be explicitly taught, practiced, and corrected, the results show little improvement in this type of error. This stresses the difficulties young ESL learners encounter when writing in the L2, which might be attributable to low levels of L2 proficiency. Verb drop errors, where the main verb is omitted in sentences, may stem not only from general L2 writing complexity but also from interference between the learners' L1 and L2. For instance, learners whose L1 allows or frequently employs zero copula or verb omission, such as in Arabic, might transfer this pattern into their L2 writing, leading to verb omission errors (Odlin, 1989; Ringbom, 2007). Moreover, V_Drop errors may also arise from developmental stages in interlanguage formation where learners experiment with simplified sentence structures as they attempt to produce grammatically acceptable output. These errors can reflect an incomplete grasp of L2 syntactic rules or cognitive overload. Limited working memory capacity during writing can also

result in omitting verbs when learners focus heavily on vocabulary retrieval or spelling (Kormos, 2006).

Our last variable was subject drop (S_Drop), a feature transferred from the participants' first language, Armenian, a null subject language where sentences can be constructed without explicit subjects. It is classified as a pro-drop language, meaning it permits the omission of subject pronouns in certain contexts. In Armenian, the subject of a sentence can often be inferred from the verb conjugation, making the explicit use of subject pronouns optional, especially in informal speech and without causing ambiguity (Meyer, 2023). The omission of subjects in English writing may thus reflect negative transfer from Armenian. While no reduction in S_Drop errors was found for the NF group, a general decreasing tendency was found for the experimental groups, particularly in the SE and PE groups. However, only at T3 were differences found between groups, specifically between the NF and SE groups. Within-group analysis showed one only significant difference in the PE group from T2 to T3. Yet, the SE group showed the highest total reduction across the three time points. Similar to dropping the verb, these results stress the difficulties young ESL learners encounter when writing in the L2, especially when it comes to L1-transferred properties.

These findings align with previous research emphasizing the strong influence of L1 transfer on errors in ESL learners (Alasfour, 2018; Hosseinpour & Ghanbarpour, 2023; Odlin, 1989; Perkins & Zhang, 2022). The persistence of such errors despite feedback highlights the challenge of overcoming deeply ingrained L1 structures (Ellis, 2008). Furthermore, as noted by Bitchener and Ferris (2012), errors related to grammatical structures influenced by L1 transfer tend to require more targeted and sustained corrective feedback to achieve significant improvement. These findings are also in accord with research on self-correction which has been identified as a

vital mechanism in improving L2 writing proficiency, specifically when learners engage actively in noticing their own errors and revising their work, they develop metalinguistic awareness and foster deeper cognitive processing, which can lead to more durable learning outcomes (Lalande, 1982; Mao et al., 2024; Truscott, 1996). Bitchener and Knoch (2008) also propose that self-correction encourages learners to internalize grammatical rules and better understand language patterns, which is especially beneficial in overcoming persistent L1 transfer errors.

To conclude, based on the fact that our results do indicate a general trend of reduction in number of grammatical errors for the three experimental groups, we can assume that WCF, and specifically the *Boomerang Feedback Strategy* types (SE and PE), help young ESL learners acquire L2 grammatical features. Overall, the SE group showed the highest total reduction in errors across the entire study followed by the PE and ED groups, while the NF group consistently showed the least progress at all data collection points. Consequently, the results support literature that indicates that WCF in general has a positive impact on second language acquisition, claiming that exposing participants to any type of WCF treatment could lead to a difference in performance compared to when they receive no WCF at all (Dewi 2020; Yanti et al., 2022). Ultimately, the findings endorse the *Boomerang Feedback Strategy* as a particularly effective and developmentally appropriate method for fostering both L2 accuracy and learner autonomy among young ESL learners.

7.3 The impact of the *Boomerang Feedback Strategy* on L2 writing motivation

Research Question 2 aimed to analyze the effect of the *Boomerang Feedback Strategy* on young learners' interest, effort, and overall motivation to actively engage in the writing activities and correction process. We hypothesized that young ESL learners involved in the *Boomerang Feedback Strategy* (through self-assessment and particularly peer-assessment) would demonstrate higher levels of motivation and more authentic engagement in the correction process than those receiving only educator feedback or no feedback. This hypothesis is hinged on previous research, mostly within the context of higher education (Cahyono & Amrina, 2016; Hey-Cunningham, Ward, & Miller, 2021; Ma, Weng & Teng, 2021; Ryan & Deci, 2000; Schunk & Zimmerman, 1994; Tai et al., 2022; Zimmerman, 1989). The discussion draws on quantitative data from the SOS Motivation Scale (Sundre & Moore, 2002) to evaluate whether the feedback strategy fostered greater learner interest and more sustained effort in the writing tasks as well as overall motivation. The items within importance given (Imp) and effort invested (Efft) were calculated separately, and their scores were then combined to accurately compute the overall motivation score (Mot).

Results for learners' sense of importance (Imp) and overall motivation (Mot) toward the writing tasks at the pre-test stage, before any intervention took place, highlight clear differences in learners' attitudes across the four groups. The PE group reported significantly higher scores in both importance and motivation compared to the other groups suggesting that students in the PE group felt more positively about writing tasks, they valued them more, and were overall more motivated than students in other groups. The NF group scored the lowest, especially on overall motivation, indicating that students in this group were less engaged or interested in the writing activities from the beginning. However, Efft differences were not statistically significant at pre-test, and all groups reported similar levels of expected effort at the start.

Between-group analysis at post-test for Imp showed that the SE group gave the highest values of importance to the writing intervention and was closely followed by the PE group. The NF and ED groups had the lowest importance ratings. This suggests that learners who engaged actively in self or peer feedback valued the writing tasks more than those who were corrected by a teacher or received no feedback. As for Efft at post-test, the SE group again reported the highest effort, followed by the PE group. The NF group reported the least effort, slightly lower than the ED group. These results indicate that active participation in feedback, be it through self or peers, encouraged more investment in the writing process. As for overall Mot at post-test, the SE group showed the highest scores, closely followed by PE. In contrast, both NF and ED groups showed substantially lower motivation scores. Although the initial Mot advantage in the PE group could have contributed to higher engagement with peer feedback and more meaningful learning outcomes, the SE group recorded higher Mot at post-test.

Within-group analysis was conducted pre to post-test in order to understand the development of Imp, Efft and Mot within each group. The NF group showed very little change over time, indicating no noticeable development in students' sense of the writing tasks' value, the effort they invested, or their overall motivation. This indicates that without WCF, learners' motivation toward the intervention remained largely static, suggesting that active engagement is essential to foster growth in motivation and perceived task value. In the ED group, results showed a slight decrease in the mean scores for Imp, Efft, and overall Mot from the pre-test to the post-test; however, these decreases were minimal. Furthermore, results showed no significant differences for any of the three measures. This suggests that students in the ED group did not experience any meaningful change in their perception of the importance of the writing tasks, the effort they invested in them, or their overall motivation over the course of the intervention. The

lack of significance may be attributed to the passive nature of educator correction, where students received feedback but did not actively engage with it in a way that affected their motivation or perception of the learning experience. The results for the NF and ED group are in accord with previous research findings. Recent studies underscore the significance of WCF in enhancing students' motivation, effort, and perceptions of writing tasks. In the absence of WCF, learners often exhibit minimal changes in these areas. For instance, Malik et al. (2024) conducted a qualitative study revealing that targeted corrective feedback fosters young learners' engagement and self-reflection, thereby enhancing motivation in ESL writing contexts. Similarly, a synthesis of naturalistic classroom studies by Han (2019) who studied university students and Lee et al. (2021), who worked with teens, highlighted that learners' engagement with WCF is influenced by their motivational dispositions. These studies suggest that without active engagement through feedback, learners' attitudes towards writing tasks remain largely unchanged.

For the SE group, results revealed an increase and significant improvement in Imp, Efft, and Mot. Students who engaged in self-correction perceived the writing tasks as more important, invested more effort in them, and this resulted in increased motivation after the intervention. The active involvement required in self-editing may have contributed to a deeper sense of ownership and engagement with the learning process, thereby enhancing both their cognitive and affective responses to the task. Research with university students backs up this claim (Hojeij & Hurley, 2017). For example, Sangeetha (2020) revealed that after learning self-editing techniques, students began to correct their writing errors independently, leading to increased responsibility for their learning and fostering learner independence. Participants expressed that self-editing motivated them to monitor their writing errors.

In the PE group, small positive increases were observed from pre- to post-test in all three measures of Imp, Efft, and Mot. However, results indicated that these gains were not statistically significant. This suggests that while peer editing may have led to slight improvement in learners' attitudes, these changes were not strong enough to be considered meaningful within the sample.

The decline in Efft and Mot in the ED group can be explained by their lack of involvement in the feedback activities. As they watched the other groups participate in the *Boomerang Feedback Strategy*, they simply looked at their mistakes without attempting to correct. They were told that they would take participate in the feedback activities in later sessions, but as the experiment proceeded, they seemed to have decreased their interest in the writing activities.

Regarding differences in gains between the four groups, results showed no significant differences for perceived Imp indicating that the type of intervention did not significantly affect participants' development of the importance given to the writing activities. However, significant differences were found for Efft and Mot gains. Results revealed that the SE group experienced significantly greater gains in Efft compared to both the NF and the ED groups. Similarly, for overall motivation, the SE group showed significantly higher gains than the ED group. These results can be explained by the degree of learner engagement and autonomy involved in each feedback condition. While self-editing requires learners to actively reflect on and correct their own writing, fostering greater metacognitive awareness and autonomy (e.g., Han, 2019; Malik et al., 2024), educator feedback tends to be unidirectional and can suppress learner autonomy and reduce long-term motivation (e.g., Lee, 2021). As for peer feedback, which involves social interaction, it can foster motivation, though it is not always as cognitively engaging as self-editing. Studies like Liu and Hansen Edwards (2002) and Lira-Gonzales et al. (2024) suggest that peer feedback can boost motivation, but effectiveness depends on training and peer dynamics. Therefore, while

learners may value the collaborative aspect, their investment might vary based on the quality of peer comments or comfort levels, explaining the slight positive but non-significant gain in the PE group. Our hypothesis that self and peer correcting groups would heighten motivation upon getting actively involved in feedback provision has been therefore confirmed. However, the hypothesis that the PE group would outperform the SE group cannot be confirmed with the data from the present study. One possible explanation can be that self-editing allowed learners in the SE group to take full ownership of their work and progress, fostering a deeper sense of responsibility. This autonomy can increase intrinsic motivation, as learners directly see the impact of their efforts on their writing (Ryan & Deci, 2000). Additionally, self-editing may reduce social anxiety or uncertainty associated with peer evaluation, making students feel more confident and comfortable during revision (Nassaji, 2017). These views emerged from the qualitative data discussed below, where the young students in the SE group expressed that they learned from their mistakes and improved their writing because working alone provided a calm and quiet environment, allowing them to focus and better understand their own errors. This enhanced motivation in the SE group likely contributed not only to more sustained effort but also to more careful attention to linguistic accuracy, which could also explain their superior performance in L2 accuracy compared to the PE group. While learners' perceptions and attitudes toward the feedback process are important, these affective factors interact with cognitive engagement and the quality of revision strategies employed. The SE group, who recorded the highest development in Mot also recorded the highest results in terms of error reduction and improved accuracy. In the same vein, the PE group came right after the SE group in terms of gains in Mot and accuracy and was followed by the ED group. The NF group recorded the lowest scores in Mot as well as in error reduction and accuracy. Higher motivation levels foster greater cognitive engagement and sustained effort during the revision

process, leading to more careful correction of errors, ultimately resulting in improved accuracy (Dörnyei, 2001; Ushioda, 2011). When learners are motivated, they invest more effort and attention in applying feedback effectively, improving their understanding and facilitating language development (Deci & Ryan, 2008).

These results were not in accord with Hemati (2021) who conducted a study with young EFL learners and found that the teacher-editing group outperformed both the self-editing and peer-editing groups in correcting specific language errors in their revised drafts. In Hemati's study, learners in the teacher-editing group benefited more from direct feedback, while the peer-editing group performed slightly better than the self-editing group. Our results also conflict with previous research that found that trained peer feedback significantly enhances ESL learners' motivation compared to teacher feedback, and that peer feedback significantly improves learners' motivation, collaboration, and satisfaction in L2 writing (Bolurcchi & Soleimani, 2021; Tai, 2015). However, our findings can be interpreted in light of the Self-Determination Theory (SDT), which posits that learners are more intrinsically motivated when their needs for autonomy, competence, and relatedness are met (Deci & Ryan, 2000). In this study, SE group demonstrated the highest gains in both motivation and accuracy. This can be explained by the autonomous nature of self-editing, which allows learners to take full control of the revision process and make independent decisions about their writing. Such autonomy may fulfill one of the central psychological needs outlined in SDT, thus enhancing intrinsic motivation and promoting deeper engagement with the task. Suzuki (2008) also found that self-editing led to more substantial changes at the sentence and discourse levels compared to peer editing and Bitchener, Young andCameron (2005) suggested that self-correction draws learners' conscious attention to their own errors, encouraging them to notice and correct mistakes independently. These findings align with our interpretation that motivated learners

who are granted autonomy become more cognitively engaged, take greater ownership of their learning, and thus show greater gains in L2 accuracy. While peer feedback does satisfy the relatedness component of SDT by involving interaction and collaboration (Deci & Ryan, 2000), it may also present social pressure that may undermine autonomy for some learners, especially if the feedback is perceived as inaccurate or judgmental (Carson & Nelson, 1996). This could explain why the PE group did not outperform the SE group despite previous literature in its favor (Bolourchi & Soleimani, 2021; Tai et al., 2015).

7.4 Learners' preferences and attitudes towards WCF and the *Boomerang Feedback Strategy*

The discussion leads us to Research Question 3, which explored young ESL learners' subjective preferences for different types of corrective feedback, and their attitudes towards the *Boomerang Feedback Strategy*. Very few studies have attempted to look into young learners' perceptions of WCF. A non-directional hypothesis was formulated to further comprehend which aspects of WCF learners liked or disliked and whether they preferred it to that of the educator. We hypothesized that learners who experienced the *Boomerang Feedback Strategy* through either self-correction or peer-correction would express positive attitudes towards the intervention (Bitchener, 2008; Chandler, 2003; Ellis et al., 2008; Ferris, 1999, 2006). In addition, we hypothesized that the young learners' preferences for types of corrective feedback would vary depending on the intervention they received (Altstaedter & Doolittle, 2014; Maftoon et al., 2015; Park et al., 2016; Ratih &Abidah, 2022).

Drawing from quantitative and qualitative data sources (i.e. focus group interviews, surveys, and open-ended questions), this section examines how learners perceived the usefulness

of WCF and to what extent they perceived their improvement in writing and in understanding of errors as a result of the different WCF types. The quantitative data was analyzed based on three categories under investigation: Usefulness, Improvement, and Error Understanding in regard to the use of the *Boomerang Feedback Strategy* and particularly for the SE and the PE groups. The SE group consistently showed more positive perceptions than the PE group, showing a stronger belief that self-correction, as part of the *Boomerang Feedback Strategy*, was beneficial and contributed to writing improvement and error awareness. Statistically significant differences were found by which the SE group outperformed the PE group in the Improvement and Error Understanding categories. The SE group also outperformed the PE group in Usefulness, but the difference did not reach statistical significance.

To examine individual statements within the Improvement and Error Understanding categories where overall significant differences between the SE and PE groups had been observed, further tests within Improvement indicated a significant difference only for the item concerning the perceived benefits of indirect feedback on writing improvement, with the SE group reporting significantly higher scores than the PE group. As for the Error Understanding category, significant differences in favor of the SE group were observed for three items: the perceived benefits of indirect feedback, self-correction, and the *Boomerang Feedback Strategy*. These results indicate that students in the self-correction group developed a deeper understanding of their errors and held stronger beliefs in the efficacy of indirect feedback and the correction strategy, further emphasizing the cognitive value of active learner involvement in the feedback process. These results do not align with research findings by Leki (1991), Nassaji and Liu (2016), and Aridah et al. (2017), whose results with adolescents and adult learners highlighted learner preference for direct grammar feedback, similar to the PE group in our study, who also preferred direct feedback. In

contrast, Kharusi and Mecklafi (2017) found that students appreciated the teachers' predominantly indirect feedback, which is similar to our finding when it comes to the SE group. This preference may be linked to the way indirect feedback encourages learners to actively engage in correcting their own errors. From a theoretical perspective, indirect feedback aligns with principles of self-regulated learning and learner autonomy, as it requires students to diagnose and correct their own errors. This process not only enhances the learners' metacognitive awareness but also reinforces the belief in their ability to perform a task successfully (Bandura, 1997).

This divergence in feedback preference can be interpreted through the lens of learner perceptions of self-efficacy. Learners who perceive active participation in the feedback provision as a tool for autonomy, as in the SE group, are likely to develop stronger self-efficacy beliefs about their ability to correct their own errors (Bandura, 1997; Zimmerman, 2002). In turn, this increased self-efficacy fosters greater engagement and eventual gains in writing accuracy. Thus, feedback effectiveness appears not only to depend on the mode of delivery but also on how it is perceived by learners in terms of control, clarity, and alignment with their developing sense of competence and autonomy.

The qualitative analysis of the answers to open-ended questions revealed insightful perceptions from young L2 learners regarding the self-correction and peer-correction approaches within the *Boomerang Feedback Strategy*. Overall, participants from both groups acknowledged that involvement in the correction process positively impacted their learning and writing development. Both groups perceived the *Boomerang Feedback Strategy* as personalized and constructive, highlighting the value of active involvement in the feedback process. The strategy encouraged learners to view mistakes as learning opportunities rather than failures, thereby fostering a positive attitude towards error correction. These qualitative findings complement

quantitative data, underscoring the cognitive and affective benefits of engaging students actively in their own or peers' error identification and correction.

For the first short-answer question regarding learners' perceptions on the *Boomerang Feedback Strategy*, "Do you think with the Boomerang Strategy you learned better than when you were not involved in the correction process? Why?" learners in the SE group emphasized having learned better as well as increased confidence and ownership over their learning. Similarly, participants in the PE group reported that correcting peers' work helped them recognize and learn from each other's mistakes, contributing to improved writing skills. These participants also reported that receiving a final, direct feedback from their teacher was an important part of the *Boomerang Feedback strategy* to ensure that their corrections were accurate. This need for validation could be explained by the limited proficiency of these young learners especially when it comes to correcting other learners' errors which they found a bit ambiguous. Nonetheless, most learners viewed the *Boomerang Feedback Strategy* as an effective tool that promoted reflection and motivated them to improve their writing.

The findings from the first short-answer question indicate that both the SE and PE groups perceived the *Boomerang Feedback Strategy* as a beneficial approach to improving their writing skills. Notably, SE group participants expressed a strong sense of confidence, ownership, and responsibility over their learning, stemming from their active involvement in identifying and correcting their own errors. This aligns with Bandura's (1997) theory of self-efficacy, which posits that learners' belief in their capacity to manage their learning tasks significantly contributes to motivation and performance. By engaging in self-correction, students exercised agency over their language development, leading to increased metacognitive awareness and deeper processing of linguistic forms (Zimmerman, 2002). Participants in the PE group also reported meaningful gains

in awareness through collaborative learning, recognizing and learning from peers' mistakes. This echoes findings from Bolourchi and Soleimani (2021) and Tai (2015), who argue that peer feedback enhances motivation, engagement, and reflection in L2 writing contexts. However, the PE group's recognition of difficulties in understanding peers' errors suggests that low proficiency levels may limit the effectiveness of peer-based strategies without adequate scaffolding. This aligns with findings by Hemati (2021), who highlighted that peer editing was less effective than educator's feedback especially among young learners due to limitations in linguistic competence.

Furthermore, that the PE group expressed the need for educators' validation underscores the importance of competence support, which is a key element in SDT (Deci & Ryan, 2000). While peer interaction satisfies relatedness, insufficient language knowledge may compromise learners' sense of competence, reducing the motivational benefit. Thus, the final teacher feedback in the *Boomerang Feedback Strategy* plays a critical role in reinforcing learner confidence by ensuring accuracy and trust in the learning process. Also, this dual need for independent reflection and external confirmation supports the layered nature of learner attitudes towards feedback, as also found in studies by Leki (1991) and Nassaji and Liu (2016), who highlighted students' desire for direct yet empowering feedback mechanisms.

Coming to question two, "Do you prefer self or peer correction? Why?", the inquiry about whether participants within both the SE and PE groups preferred self-correction or peer-correction revealed distinct learner preferences. In general terms, the SE group's preference for self-correction was primarily motivated by a desire for a quiet, distraction-free environment, which they perceived as more conducive to focus and reflection. This preference is tied to an internalized sense of autonomy and self-regulation, where learners appreciated having control over their revision process (Meece, Blumenfeld & Hoyle, 1988). The reported ability to take ownership and

engage deeply with their own errors reflects heightened metacognitive awareness, an important dimension of self-regulated learning, and a growing sense of self-efficacy. These learners believed in their ability to correct their own mistakes, which likely contributed to both increased motivation and improved performance. These findings are strongly supported by SDT (Deci & Ryan, 2000) and Bandura's theory of self-efficacy (1997) where, motivation thrives when the psychological needs for autonomy, competence, and relatedness are fulfilled.

The PE group valued the collaborative, social aspect of peer correction, which also aligns with the relatedness component of SDT (Deci & Ryan, 1985). These learners reported enjoying the dynamic learning experience and mutual assistance. However, the preference for peer correction was not universal as a significant minority still preferred self-correction, likely due to concerns about accuracy, clarity, or discomfort in critiquing others, especially common among young or lower-proficiency learners. Studies such as Tai (2015) and Bolourchi and Soleimani (2021) have emphasized the motivational benefits of peer feedback, especially in terms of collaboration and enjoyment paralleling the PE group responses. However, research by Suzuki (2008) and Bitchener, Young and Cameron (2005) has underscored the effectiveness of self-editing in fostering deeper cognitive engagement and encouraging learners to independently notice and address errors reflecting the SE group's experiences. Further, Hojeij and Hurley (2017) emphasized that self-editing can reduce social anxiety and support learners' confidence especially among younger learners. This can pose as a possible explanation for the SE group's stronger motivation and focus. After all, learners' preferences seem to be influenced by the type of correction strategy they were exposed to. Those who practiced self-correction more frequently reported positive experiences with it and preferred it. Similarly, learners with peer correction practice tended to prefer collaboration, likely due to familiarity of the activity. These findings

highlight the importance of offering flexible correction options in language learning contexts to accommodate diverse learner preferences and promote both independent and collaborative learning strategies.

The results of question three, “Do you consider that peer-correction/self-correction helped improve your writing? Why?”, revealed strong support for the effectiveness of both self- and peer-correction in improving writing among young ESL learners. The responses indicate active cognitive engagement with the revision process and a growing sense of learner autonomy.

A few learners also highlighted the role of teacher feedback as an essential support for effective self-correction reflecting realistic metacognitive awareness of their own limitations. Again, these findings align with the principles of Bandura’s (1997) theory of self-efficacy and SDT. Bandura emphasizes how the participants’ active involvement leads to increased sense of autonomy, enhancing the belief in their own capability to self-correct their writing, which in turn is a key indicator of rising self-efficacy. Their recognition of teacher feedback as supportive also shows how external input can strengthen their confidence to act independently. Self-Determination Theory posits that autonomy, competence, and relatedness are fundamental to motivation, and the learners’ appreciation of teacher feedback reflects these principles, as they took charge of their revisions with a clear understanding of their strengths and limitations while valuing the teacher’s supportive role. Conversely, only a small percentage of the SE group expressed difficulties with the self-correction process, citing low confidence or insufficient language proficiency. These learners preferred direct feedback from the educator, stating that they struggled to identify or trust their own corrections. Their comments reflected limited confidence or a belief that they did not benefit significantly from self-correction. This can be attributed to low proficiency of the learner

hence necessitating direct educator feedback. These results also highlight the fact that self-efficacy is not uniformly developed across all learners.

In the PE group, a large percentage indicated that peer correction improved their writing and reported that the joint effort enhanced both understanding and enjoyment. Peer correction was seen not only as educational but also as a socially engaging and motivating activity. However, a few learners in the PE group preferred to work independently and did not feel that peer correction contributed meaningfully to their writing improvement. These learners either disliked collaboration. felt that peer correction did not lead to visible progress or found the activity less focused and less productive than working alone.

There was a general preference for self-correction as some learners from the PE group independently asked the researcher if they could work alone. This tendency may be related to the post-COVID learning context, during which these young learners experienced extended periods of remote learning outside the traditional classroom environment. As a result, they became accustomed to working independently and appeared to find that focusing on their own errors allowed for greater concentration and control over their learning process. This resonates with recent findings on post-COVID shifts in primary and secondary school student autonomy and learning behavior (e.g., Kim & Asbury, 2020; Chiu, 2021).

These results largely confirm Yanti et al. (2022) and Dahal (2023), whose findings highlight that both self and peer feedback are perceived as beneficial for improving learners' writing skills. They also stress that peer-correction fosters collaborative learning and critical thinking, while self-correction promotes learner autonomy and self-awareness. These studies conclude that integrating peer and self-feedback techniques can enhance learners' L2 writing proficiency and engagement. Additional support for these findings comes from Zhang (2010), who

argued that learners benefit most when they are encouraged to actively engage in the feedback process rather than passively receive corrections. Likewise, Suzuki (2008) showed that self-editing leads to more meaningful revisions at the sentence and discourse levels, reinforcing the idea that students internalize rules more effectively when they take ownership of their learning. Self-correction supports autonomy and competence by enabling learners to independently identify and resolve their own errors. Peer correction, on the other hand, addresses relatedness through social interaction, though its effectiveness may depend on the learner's comfort level and trust in peers' accuracy.

In addition, these practices are grounded in the principles of social constructivism (Vygotsky, 1978), where learning is seen as a socially mediated activity. Peer feedback provides a platform for dialogic learning and knowledge construction. At the same time, self-regulated learning theory (Zimmerman, 2002) underscores the role of metacognitive strategies, for example self-editing, in fostering independent, motivated learners who monitor and reflect on their own progress. Taken together, the aforementioned body of research and theoretical grounding supports the idea that combining both self and peer feedback strategies can lead to more effective, engaged, and autonomous L2 writers.

The final step in data triangulation was the focus group interviews which provided rich, qualitative insights into learners' perceptions of written corrective feedback comparing traditional WCF with the *Boomerang Feedback Strategy*. Overall, the discussions revealed that learners across both SE and PE groups had distinct preferences shaped by their experiences. A dominant theme across all SE groups was a clear preference for self-correction over educator correction. Learners expressed that self-correction enhanced their understanding of errors and contributed directly to writing improvement. Teacher corrections were reported to be often overlooked, but

self-identifying and correcting mistakes fostered deeper learning. This aligns with previous research showing that learner-driven error identification promotes deeper processing and retention (Bitchener, Young, & Cameron, 2005; Suzuki, 2008). Furthermore, the learner autonomy fostered by self-correction resonates with SDT (Deci & Ryan, 1985, 2000), particularly the psychological need for autonomy and competence. Participants consistently reported that indirect feedback, that is, underlined errors without corrections, was more beneficial than direct correction. This approach encouraged critical thinking and problem-solving. This preference is also supported by self-regulated learning theory (Zimmerman, 2002), which emphasizes the importance of learners engaging in error diagnosis and reflection. Indirect feedback, by prompting learners to resolve issues themselves, fosters metacognitive awareness, critical thinking, and problem-solving skills (Ferris, 2006; Shintani, Ellis, & Suzuki, 2014).

While some learners initially did not recognize that only certain errors were corrected, focused feedback was later appreciated as it made the revision process more manageable. Learners explained that focused correction reduced anxiety and helped maintain motivation as they were not overwhelmed by a lot of corrective feedback. Focused feedback was associated with reduced anxiety, enhanced clarity, and increased motivation, particularly among young learners who may feel overwhelmed by too many corrections (Sheen, 2007; Ellis, 2009). This also reflects SDT's emphasis on minimizing external pressure to support learner engagement and well-being.

Focus group interviews with the PE group revealed a strong preference for active involvement in the correction process, with participants emphasizing that collaboratively correcting mistakes deepened their understanding of errors. Similar to the SE group, indirect feedback, where teachers underline errors without immediate correction, was valued for encouraging critical thinking and independent problem-solving. Participants in the PE group

appreciated focused feedback, noting that correcting only selected errors made the process manageable and less discouraging. Additionally, peer correction elicited mixed reactions. While many participants enjoyed the collaborative aspect and mutual support, some others reported challenges such as difficulty correcting vague errors or confusion from peers' handwriting. These insights suggest that peer correction is beneficial but requires clear guidance and scaffolding. These results align closely with the findings on accuracy and motivation. The SE group, which demonstrated the most positive attitude toward self-correction and valued it as a strategy for enhancing error awareness and writing skills, also showed the greatest gains in motivation and the most significant reduction in total errors, followed by the PE group. The NF and the ED showed the lowest improvement in motivation. In addition, many learners expressed a strong preference for working individually as peer correction was seen as potentially confusing and unreliable. Learners wanted to correct their own mistakes and not someone else's and complained that sometimes a peer gives incorrect feedback and they get more confused. These comments reflected participants' reservations about peer input, especially when it contradicted their own correct responses.

Mixed views on peer correction indicate that collaborative feedback must be carefully structured to maximize benefits and minimize confusion, particularly in the context of young Lebanese learners. In many Lebanese classrooms, students are accustomed to teacher-centered approaches where the educator is viewed as the main authority. As such, shifting the responsibility of error correction to peers may feel unfamiliar or even uncomfortable for some students, especially if they doubt their own or their classmates' linguistic competence. Additionally, young learners in Lebanon may be reluctant to correct peers for fear of offending them, due to the high value placed on interpersonal harmony and respect in Lebanese culture. This dynamic can make

peer correction less effective unless students are explicitly taught how to give and receive feedback constructively and confidently.

Moreover, the multilingual background of many Lebanese learners, often navigating Arabic, French, and English, can lead to confusion when applying grammar rules or identifying errors, further complicating peer feedback. Without clear guidance from the teacher, misunderstandings can arise, and incorrect feedback may go uncorrected, undermining learning outcomes. Therefore, in this cultural and linguistic context, peer correction must be carefully scaffolded through modeled examples, rubrics, and clear teacher facilitation to ensure that it supports learning rather than creating confusion or discouragement.

Despite some reservations about peer correction, the overall perception of the *Boomerang Feedback Strategy* was highly positive. Learners described it as engaging, effective, and even enjoyable. Participants expressed that they loved it very much and suggested teachers of all subjects should use the *Boomerang Feedback Strategy*. This confirms previous research that learners view peer and self-feedback as more beneficial than educators' WCF for improved writing in the L2 (Adam, 2024; Akmilia et al., 2015; Robles, 2024; Yanti et al. 2022).

To sum up, our data suggests that young Lebanese L2 learners benefitted from both types of focused WCF with respect to error reduction, more remarkably in articles and third person singular than in prepositions over a short period of eleven weeks. In addition, the *Boomerang Feedback Strategy* has shown to have a positive impact on L2 writing interest, effort, and motivation. Finally, young learners prefer WCF self-correction or peer-correction over educator feedback. Learners generally viewed teacher correction as less effective because it often led to passive reception of feedback rather than active engagement. Learners reported that they did not always read or pay attention to teacher corrections. Furthermore, overcorrection from teachers

(unfocused feedback) sometimes felt discouraging, particularly for low proficiency younger learners. Teacher correction lacked the interactive or reflective dimension present in self- and peer-based feedback processes.

7.5 Teaching implications

The findings of this study offer several implications for pedagogical practice, particularly in the context of teaching writing to young ESL learners in Lebanon and around the world. They highlight the importance of learner-centered feedback approaches and support a shift away from educator correction strategies towards more interactive and reflective modes of WCF. Therefore, it is suggested that learners, even at a young age, are capable of engaging in metalinguistic reflection and can benefit from being given responsibility in the revision process (Shintani, Ellis, & Suzuki, 2014; Yanti et al., 2022). Educators are therefore encouraged to implement structured self and peer-correction tasks that build feedback literacy and foster greater learner autonomy. Moreover, the variation in outcomes across groups indicates that no single feedback method is universally superior across all linguistic features or time points; therefore, alternating between different WCF techniques (direct, indirect, peer and self) may be more effective than relying on a single approach. Hence, we propose that educators should consider rotating feedback techniques based on the learning objectives, the linguistic focus, and the learners' proficiency.

Motivation emerged as a key factor in this study, influencing how learners engaged with feedback and how much effort they exerted. This highlights the importance of fostering positive learner attitudes towards feedback practices. Teachers should invest time in building learner trust and appreciation for self and peer WCF provision through guided modeling, encouragement, and

practice. Motivated learners are more likely to see feedback as an opportunity rather than a judgment, resulting in deeper engagement and sustained improvement.

Furthermore, the study reveals that gains in accuracy through SE and PE strategies were not immediate but became more pronounced over time. This gradual improvement points to the necessity of developing learners' ability to understand, interpret, and apply WCF. Introducing feedback training, for example, how to identify common errors, how to respond to peers' suggestions, and how to revise one's own work can enhance the long-term benefits of WCF. Investing time in feedback literacy early on can empower students to take greater ownership of their language development. Findings also indicate that feedback needs to be ongoing rather than a one-time event. The absence of further improvement between T2 and T3 in certain groups underscores the importance of sustained feedback cycles. Practice and repeated revision could be important for consolidating linguistic gains especially among young ESL learners. Therefore, educators are encouraged to embed continuous feedback loops throughout writing instruction. Finally, although increased word count does not directly imply improved accuracy, it can serve as an important measure of a learner's growing confidence and willingness to write in English. The *Boomerang Feedback Strategy*, by actively involving students in the feedback loop, encouraged larger writing output. Teachers should continue to monitor changes in writing volume alongside qualitative measures, using this as a motivational indicator of student progress.

To conclude, the relatively limited impact of educator feedback compared to SE and PE approaches suggests that teacher corrections, while valuable, may not be sufficient on their own. These findings point to the need for more dialogic and participatory forms of feedback rather than top-down correction alone. Teachers should balance their direct input with learner-driven strategies to maximize long-term impact. This study emphasizes that effective written corrective feedback is

not merely a matter of identifying and correcting errors, but rather creating an environment where learners actively engage with their own writing development. By promoting learner agency, diversifying feedback methods, and integrating feedback literacy into the curriculum, educators can foster deeper, more sustained improvement in both writing fluency and accuracy among young ESL learners. Chapter 8 draws an end to this dissertation by providing concluding remarks, limitations and suggestions for future research.

CHAPTER 8

CONCLUSIONS, LIMITATIONS AND STREAKS FOR FURTHER RESEARCH

The current study set out to explore the effects of different types of written corrective feedback, particularly through the lens of the *Boomerang Feedback Strategy*, on young ESL learners' writing accuracy, motivation, and feedback preferences. Drawing on both quantitative and qualitative data, the findings offer valuable insights into how learner-involved feedback, especially self-correction (SE) and peer-correction (PE), can meaningfully enhance L2 writing accuracy at an early stage.

The study makes contributions to the field by addressing a clear gap in the WCF literature by focusing on young ESL learners, a demographic often overlooked in corrective feedback research, which tends to prioritize adult or university-level learners. The study also considers developmental and affective factors that influence how young learners process feedback, an area which is underrepresented in empirical studies. Furthermore, this study is valuable for proposing and testing a novel feedback technique, the *Boomerang Feedback Strategy*, which promotes learner engagement and autonomy by requiring students to reflect on and revisit their errors, making the feedback process more interactive and cognitively engaging. Conducted in a Lebanese context, the study adds to the diversity of WCF research settings, helping globalize findings beyond Western classrooms and offering context-specific implications for multilingual environments.

Results of this study showed that the type of WCF significantly influenced learners' accuracy, particularly in rule-governed features such as third person singular verb forms and article usage. The SE group demonstrated the highest overall improvement in accuracy, with notable reductions in error rates over time, followed by the PE group. This supports previous claims in the literature that learner involvement in revision can yield better grammatical outcomes than solely educator WCF or no feedback at all. Furthermore, the *Boomerang Feedback Strategy* proved to be effective in promoting learner motivation. The SE group not only showed the greatest reduction in errors but also recorded the highest growth in motivation scores. This indicates that giving learners agency in the correction process can foster both linguistic accuracy and a more positive attitude towards writing. Moreover, both SE and PE groups appreciated the process of reviewing and revising their own or peers' work, viewing it as a useful way to deepen their understanding of errors and improve their writing.

The study contributes to the growing body of research advocating for more interactive and learner-centered approaches to WCF, especially in younger ESL learners. Educators working with young learners should opt to make feedback engaging by incorporating visuals, stickers, or interactive games that reinforce the feedback process. Our results emphasize that even at low proficiency, young learners are capable of engaging meaningfully with WCF and benefit from strategies that empower them to take ownership of their learning.

Nevertheless, there are several limitations that should be acknowledged. The relatively small sample size (96 learners) and the context of the study may limit the generalizability of the findings as the participants were all from Lebanese private schools. The study was conducted within a specific institutional and cultural context, Armenian Evangelical Schools in Lebanon, which may not reflect other ESL learning environments globally. Hence, it should be

acknowledged that the learners' attitudes towards WCF types may be shaped by local educational norms and expectations, limiting applicability elsewhere. Second, the participants were young ESL learners aged 10-11 years-old whose cognitive maturity and metalinguistic awareness are still developing. These factors may have influenced how effectively they could engage with self and peer correction tasks, possibly affecting the depth and consistency of their revisions. In addition to the above, although learners received some guidance, their exposure to self and peer-correction strategies may not have been sufficient for them to fully develop feedback literacy. Inadequate training may have led to surface-level editing rather than meaningful engagement with language form. Also, in the PE group, students may have been reluctant to critique their peers openly or may have provided overly positive or superficial feedback, which could compromise the quality and effectiveness of peer-editing. Yet another limitation that could have impacted the results is the fact that the ED group acknowledged the lack of involvement in the feedback activities. These learners watched the PE and SE groups take active part in the *Boomerang Feedback Strategy* while they simply looked at their mistakes without attempting to correct. Similarly for the NF group, although these learners were not present in the classroom during the feedback sessions, they knew that their classmates were taking part in the corrective feedback activities. Although the design of the study has great ecological validity by being classroom-based and that these learners in the ED and NF groups knew that they would take part in the activities once the study finished, this could have impacted their motivation and willingness to write.

With respect to improvement in L2 accuracy, other persistent L2 challenges such as verb tense consistency were not examined, which narrows the scope of linguistic insight. Equally, a central limitation lies in the fact that some grammatical features need time and further practice to improve, and this study spread over a short period of eleven weeks not enabling enough time to

observe such improvements. Therefore, more studies need to be carried out in order to determine the impact of WCF on grammatical aspects that are more complex and labelled as “untreatable”.

Another limitation is that it is not clear whether the L2 features under study were actually acquired by the learners as a result of the WCF treatments. Research admits that the use of corrective feedback does promote and enhance learning of grammatical forms (Black, Harrison, Lee, Marshall, & Wiliam, 2004). On the other hand, we should not dismiss the fact that the level of student engagement with feedback is also assumed to be a key factor in L2 acquisition (Zhang & Hyland, 2018), an aspect this research did not look into. Although previous studies have shed light on how learners use WCF types in their revision, these studies have not paid ample attention to revision processes (Stevenson & Phakiti, 2019). Therefore, it is not completely clear whether the learners receiving and providing WCF acquire the correct grammatical form or they merely memorize trends and patterns without thoroughly incorporating the rules. In this sense, any study looking into the degree of learner uptake from WCF should carefully investigate how learners engage with feedback types during the revision process (González et al., 2022; Mila & García Mayo, 2014; Zhang, 2017). For this reason, it is very difficult to truly understand whether types of WCF facilitate L2 acquisition. Using eye-tracking devices and real-time recordings may help researchers better understand learner engagement with WCF, and thus conclude that learner uptake is actually taking place.

Moreover, although the study employed data triangulation to enhance validity, the self-reported data introduces a potential subjectivity bias. The young participants’ reflections on their motivation and attitudes may be influenced by social desirability or their own perceptions, which could affect the accuracy of these measures. Finally, the duration of the intervention may not have been long enough to capture the full impact of the feedback practices on L2 writing development.

Follow-up studies would be needed to decide whether the observed improvements in L2 accuracy and motivation can be sustained over time, or whether the novelty effect influenced the recorded short-term gains. Therefore, future research could benefit from longitudinal studies that track learners' progress over a more extended period and across diverse educational contexts. It would also be worthwhile to explore how feedback literacy can be gradually developed in young learners and how digital tools might support the implementation of self and peer WCF strategies. One more factor that would enhance the research study would be including teacher feedback and experiences in implementing the *Boomerang Feedback Strategy* which could offer a more holistic view of its classroom practicality and challenges.

In conclusion, this study underscores the value of focused WCF in general and the *Boomerang Feedback Strategy* in particular in fostering accuracy, motivation, and a deeper engagement with writing among young ESL learners. It highlights the potential of involving learners in the feedback loop, not merely as recipients of correction, but as active participants in their own language development journey. Research does not provide a clear-cut answer yet concerning which type of WCF is more effective. In addition, other aspects like types of grammatical errors, the nature and objective of the task, and individual differences should be taken into consideration when making decisions about the type of corrective feedback to be provided. In spite of the limitations and many raised questions which require further research, undoubtedly, the current study adds to our understanding of the WCF strategies to improve writing accuracy in ESL classrooms. This evidence could be beneficial to SLA researchers, subject coordinators, and teachers whose passion is the teaching of English as a second language.

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Appendix A

ENGLISH LEVEL TEST FROM THE BRITISH COUNCIL

Online English Level Test
https://learnenglish.britishcouncil.org/test-your-english?destination=/online-english-level-test-access#/
There are 30 multiple-choice questions. Each question has two parts:

- **A:** level check question
- **B:** where you tell us how sure you are about your answer to A - certain, fairly sure or not sure.

You must complete both parts to progress to the next question.
You have minutes to complete the quiz. When you finish, we will recommend courses based on your score.

A: Choose the best word or phrase to complete the sentence.

1. **The big book is _____.**
   a. mine b. mine c. me
2. **_____ a man working in the street.**
   a. There were b. There are c. There is
3. **Uncle Cyril visits _____ every week.**
   a. me b. my c. mine
4. **Jane is playing _____ the park.**
   a. To b. in c. from
5. **Jim _____.**
   a. be tall b. tall c. is tall
6. **What happened to all the apples? They _____ by birds.**
   a. have got to eat b. got eaten c. have eaten
7. **Please sit on _____ chair.**
   a. those b. that c. the
8. **The dinner was _____ good.**
   a. really b. too much c. great

9. The sick boy _____ stay in bed.

a. has got to b. is got to c. is getting

10. There aren't _____ in our street.

a. some dogs b. any dogs c. any dog

11. Jill _____ her ice cream.

a. has already finished b. has yet finished c. has finished already

12. The film is _____ the book.

a. more interesting than b. more interesting for c. more interesting from

13. "Mother, _____ to bed?" asked John.

a. have I got going b. have I got to going c. have I got to go

14. Look at _____ birds in the trees.

a. That b. those c. this

15. _____ sweater is yours? The green one, or the red one?

a. Which b. What c. Whose

16. John is standing _____ the bus stop.

a. to b. in c. at

17. John _____ but we'll start without him.

a. hasn't arrived since b. hasn't arrived yet c. hasn't already arrived

18. The man ran _____ the big dog.

a. for get b. to get c. for getting

19. Jane doesn't like _____ salt in her food.

a. too many b. many c. much

20. Do you think that our friends _____ for us? In any case, let's hurry!

a. wait b. may be waiting c. shall be waiting

21. Barry's real triumph is _____ in the desert for a month.

a. to have survived b. as to surviving c. for surviving

22. We suggest _____ a report at once.

a. the secretary writing b. the secretary to write c. the secretary write

23. Cyril, you really_____ the principal's office while he was on holiday.

a. oughtn't to be using b. oughtn't to have been using c. oughtn't have been using

24. My grandmother fell in the street, but a kindly _____ helped her.

a. by-passer b. passer-on c. passer-by

25. The decision _____ early was the correct one.

a. to start b. for a start c. in starting

26. The woman touched the button, _____ the door opened.

a. Directly b. whereupon c. at once

27. I know James – he'll go on, and ignore the weather_____ calm or stormy.

a. be it b. it being c. being it

28. The salesman is asking a price that is _____ impossible.

a. very b. too c. quite

29. Sid was _____ after his fall while skiing.

a. not the bad b. none the worst c. none the worse

30. Tim crashed his father's car, and now he's trying his best to _____.

a. make his mistake good b. make his good mistake c. make good his mistake

Appendix B

STUDENT OPINION SCALE (SOS)

JMU

James Madison University
Center for Assessment and Research Studies (MSC 6806)

Memorandum

To: Researchers Requesting the *Student Opinion Scale (SOS)*

From: Donna Sundre

RE: Instructions for using the *SOS*

You have requested a copy of the *Student Opinion Scale (SOS)* to use in your research. I am pleased to provide you with a copy of the instrument and the scoring guidelines. This *SOS* is designed to provide two scores of test-taker motivation: Importance and Effort. The instrument should be administered immediately following completion of a test or tests. I have attached a copy of the scale and the scoring guidelines for your use.

The original reference for the *SOS* is

Sundre, D. L. & Moore, D. L. (2002). The Student Opinion Scale: A measure of examinee motivation. *Assessment Update, 14* (1), 8-9.

Another useful reference regarding the scale is:

Sundre, D. L. (1999, March). Does examinee motivation moderate the relationship between test consequences and test performance? Paper presented at the American Educational Research Association. Montreal, Canada [ED 432 588].

Sundre, D. L. & Finney, S. J. (2002, April). *Enhancing the validity and value of learning assessment: Furthering the development of a motivation scale.* Presented to the American Educational Research Association. New Orleans, LA. [Available for downloading and viewing at http://www.jmu.edu/assessment/].

In exchange for permission to use my scale, I'd appreciate your sending me a copy of any manuscripts that result from your use of the *SOS*, as I am always interested in seeing studies that use the scale. I thank you in advance for your cooperation, and I wish you success with your research.

Harrisonburg, Virginia 22807
(540) 568-6706
(540) 568-7878 Fax

STUDENT OPINION SCALE (SOS) REVISED

Name: _____ Date: _____ Group:_____

Importance ___reverse coded	1= Strongly Disagree	2= Disagree	3= Neutral	4= Agree	5= Strongly Agree
1. Doing well on these writing activities was important to me.					
2. I engaged in good effort throughout these writing activities.					
3. I am not curious about how I did on these writing activities compared to others.					
Reverse					
4. I am not concerned about the scores I receive on these writing activities.					
Reverse					
5. These were important writing activities to me.					
Effort 6. I gave my best effort on these writing activities.					
7. While doing these writing activities, I could have worked harder on them.					
Reverse					
8. I would like to know how well I did on these writing activities.					
9. I did not give these activities my full attention while completing them.					
Reverse					
10. While doing these writing activities, I was able to persist to completion of the tasks.					

1, 3, 4, 5, 8 →Importance score: _____ 2, 6, 7, 9, 10 → Effort score: _____ Motivation score: _____

Appendix C

PERCEPTION SURVEY AND SHORT QUESTIONS

Perception Survey Peer

1 Not at all	2 Not very	3 A little	4 Very	5 Extremely

1. It is **useful** when the teacher **underlines** the error, **gives its correct form** and asks me to go over the corrections at home. _____
2. It is **useful** when the teacher **just underlines** my error without correcting: _____
3. It is **useful** when the **teacher provides the correct answer after I do peer correction**. _____
4. It is **useful** when **I correct with my peers**. _____
5. Correcting **only some of the errors** (focused) was **useful**. _____
6. The *Boomerang Strategy* of corrective feedback where the teacher corrected, then I cooperated with my peers, after which the teacher gave more feedback is **useful**. _____
7. The **teacher underlining the error**, giving its **correct form** and asking me to go over the corrections at home helped me **improve** my writing. _____
8. Making **peer-corrections** helped me **improve** my writing. _____
9. The teacher **just underlining my error** without correcting them helped me **improve** my writing. _____
10. The **teacher** providing the **correct answer after I did peer correction** helped me **improve** my writing. _____
11. The *Boomerang Strategy* of corrective feedback where the teacher provided correction, then I cooperated with my peers, after which the teacher gave more feedback helped me **improve** my writing. _____
12. Correcting only **some of the errors** (focused) helped me **improve** my writing. _____

13. The **teacher** providing the **correct answers** helped me **understand** my errors. _____
14. Doing **peer-correction** helped me **understand** my errors. _____
15. The **teacher** underlining the error, **giving the correct** form and asking me to go over the corrections at home helped me **understand** my errors. _____
16. The **teacher just underlining** my error without correcting helped me **understand** my errors. _____
17. The *Boomerang Strategy* of corrective feedback where the teacher provided corrections, then I cooperated with my peers, after which the teacher gave more feedback helped me **understand** my errors. _____
18. Correcting only **some of the errors** (focused) helped me **understand** my errors. _____

Short questions:

Q1: Do you think with the Boomerang Strategy you *learned better* than when you are not involved in the correction process? Why?

Q2: Would you like to do this correction activity *by yourself* instead of working with a peer? Why?

Q3: Do you consider that peer-correction helped *improve your writing*? Why?

Perception Survey Self

1 Not at all	2 Not very	3 A little	4 Very	5 Extremely

1. It is **useful** when the teacher **underlines** the error, **gives its correct form** and asks me to go over the corrections at home. _____
2. It is **useful** when the teacher **just underlines** my error without correcting: _____
3. It is **useful** when the **teacher provides the correct answer after I do self-correction**. _____
4. It is **useful** when **I correct my own errors**. _____
5. Correcting **only some of the errors** (focused) was **useful**. _____
6. The *Boomerang Strategy* of corrective feedback where the teacher corrected, then I corrected my own errors, after which the teacher gave more feedback is **useful**. _____
7. The **teacher underlining the error**, giving its **correct form** and asking me to go over the corrections at home helped me **improve** my writing. _____
8. Making **self-corrections** helped me **improve** my writing. _____
9. The teacher **just underlining my error** without correcting them helped me **improve** my writing. _____
10. The **teacher** providing the **correct answer after I did self-correction** helped me **improve** my writing. _____
11. The *Boomerang Strategy* of corrective feedback where the teacher provided correction, then I corrected my own errors, after which the teacher gave more feedback helped me **improve** my writing. _____
12. Correcting only **some of the errors** (focused) helped me **improve** my writing. _____
13. The **teacher** providing the **correct answers** helped me **understand** my errors. _____
14. Doing **self-correction** helped me **understand** my errors. _____
15. The **teacher** underlining the error, **giving the correct** form and asking me to go over the corrections at home helped me **understand** my errors. _____

16. The **teacher just underlining** my error without correcting helped me **understand** my errors. _____
17. The *Boomerang Strategy* of corrective feedback where the teacher provided corrections, then I corrected my own errors, after which the teacher gave more feedback helped me **understand** my errors. _____
18. Correcting only **some of the errors** (focused) helped me **understand** my errors. _____

Short questions:

Q1: Do you think with the Boomerang Strategy you *learned better* than when you are not involved in the correction process? Why?

Q2: Would you like to do this correction activity with a peer instead of working *by yourself* Why?

Q3: Do you consider that self-correction helped *improve your writing*? Why?

Appendix D

WRITING ACTIVITY PACKS

Student Name: _____	**School:** _____
Grade Level:	

Subject: Writing **Duration**: 50 minutes **Date**: _____

Objectives:

Students should be able to:
- Write for a picture
- Put words sentences
- Continue sentences
- Complete a short paragraph

Grade:	**/ 20**
Class Average:	**/ 20**

Remarks:

Writing Pack 1

1. Maria has a morning routine. Write a paragraph to describe what Maria does every morning before going to school. Use the words in the picture as a guide. (6 points)

_____

_____

_____

_____

_____

_____

B – Use each word in a sentence.

1. vacation: (2 points)

_____

_____

2. study: (2 points)

_____

_____

2

C – Continue the sentences. (5 points)

1. Every day, the artist _____.
2. She _____the weekend.
3. Sometimes my friends and I _____.
4. The minute the bell rings, _____.
5. _____ when they get home from school.

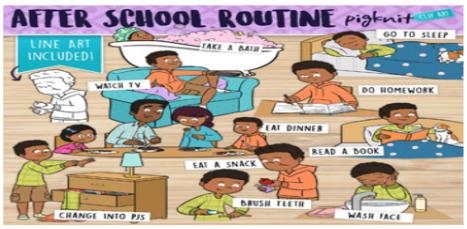
D. Fill in the blanks to complete the paragraph in a meaningful way. The word bank will help you. (5 points)

weights	treadmill	dumbbells	bicycle	rowing machine	training bench

Every morning, Bob _____ early to go to the gym. Bob _____ personal trainer, and he helps people get in shape. At the gym, Bob first _____. Then, Bob _____. After that, _____. Finally, Bob _____.

3

Writing Pack 2



1. **Peter has an after-school routine. Write a paragraph to describe what Peter does every day when he comes home from school. Use the words in the picture as a guide. (6 points)**

_____

_____

_____

_____

_____

_____

B – Use each word in a sentence.

1. prepare: (2 points)

_____

_____

2. bicycle: (2 points)

_____

_____

C – Continue the sentences. (5 points)

1. The teacher always_____.

2. My father _____weekends.

3. Sally and I usually _____.

4. As soon as he arrives, _____.

5. _____ once they finish their homework.

D. Fill in the blanks to complete the paragraph in a meaningful way. (5 points)

Every summer, my family and I _____vacation. We usually _____ hotel near the beach. My brother usually _____ first thing in the morning. Then, my sister and I _____. After that, my mother _____. Finally, we all _____.

Writing Pack 3

1. **Sam helps his mother with chores. Write a paragraph to describe the chores that Sam does every day. Use the words in the picture as a guide. (6 points)**

_____

_____

_____

_____

_____

_____

B – Use each word in a sentence.

1. bake: (2 points)

_____

_____

2. pet: (2 points)

_____

_____

C – Continue the sentences. (5 points)

1. Every week, the students _____.

2. Frank usually _____Mondays.

3. Betty and I always _____.

4. When it starts to rain, _____.

5. _____ the moment they finish eating lunch.

D. Fill in the blanks to complete the paragraph in a meaningful way. (5 points)

At the end of each term, my school _____mountains. We all _____ our bags and _____ the school bus. On arriving, my teacher _____different teams. Then, each team _____. After that, two students from each team _____. Finally, we _____.

Appendix E

FOCUS GROUP INTERVIEWS

Focus Group Questions

Q1: Which of the two types of corrective feedback did you like more: the teacher or by yourself/ teacher-peer? Why?

Q2: Which of the two types of corrective feedback do you think (the teacher or by yourself/ teacher-peer) helped you improve your writing? Why?

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

Q5: Would you rather the teacher corrects all your mistakes? Why?

Q6: What did you like about the teacher's correction?

Q7: What did you dislike about the teacher's correction?

Teacher-correction group

Q6: What did you like about self correction?

Q7: What did you dislike about self correction?

Self-correction group

Q6: What did you like about peer correction?

Q7: What did you dislike about peer correction?

Peer-correction group

Q8: Did you enjoy the corrective feedback activities? If not, why?

Appendix F

Focus Group Interview One (Peer)

Q1: Which of the two types of corrective feedback did you like more: the teacher or teacher-peer (Boomerang)? Why?

Answer. Unanimously- We prefer to do the corrections ourselves, together with a peer.

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher-peer (Boomerang)?) helped you improve your writing? Why?

Answer. Students unanimously expressed that they think they improve in writing when they correct for each other than when the teacher corrects for them.

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

Answer . Only underlining the mistakes helped us understand our mistakes and our friends' mistakes. It was better to underline only because it made us think about the mistake.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

Answer one . I did not realize that you corrected only some of the mistakes

Answer two. I wondered why the teacher did not correct some of the errors that I realized later on .

Answer three. I told my friend how strange that the teacher has not underlined a mistake.

Q5: Would you rather the teacher corrects all your mistakes? Why?

Answer one . I prefer that the teacher corrects all the mistakes so I know what mistakes I have done .

Answer two. It is better that the teacher corrects some of the mistakes so that I can understand those mistakes and correct them.

Answer three. I prefer that the teacher corrects some of the mistakes because it will be easier for us to correct them .

Q6: What did you like about peer correction? Would you prefer to self-correct?

Answer one . I liked it very much Because it was fun working with a teammate

Answer two. I liked working with the peer because we helped each other.

Answer three. I liked working with a peer because if one person does not know the answer in English we can help each other.

Answer 4 . I like correcting with a peer because when we don't understand something we can ask each other, and if we do not understand the handwriting, we ask our friend.

Answer 5 . When we corrected each others' papers we understood the mistakes and we started writing better .

Q7: What did you dislike about peer correction?

- There were too many mistakes to correct
- Sometimes I did not understand the handwriting
- I prefer correcting my own mistakes
- When we disagreed about the correction

Q8: Did you enjoy the corrective feedback activities (Boomerang)? If not, why?

Answer one. Yes we learned a lot.

Answer two. Yes. It was a lot of fun. I improved a lot and I started writing better.

Answer three. Yes because at the beginning of the year I was making a lot of mistakes, but then I started making less mistakes and writing better.

Answer four. Yes, it was like a game. I improved a lot at the beginning, but with the third pack I didn't feel that I improved any further because it was very similar to pack one and pack 2.

General comments. We enjoyed the boomerang strategy very much .

We wish the teacher would continue using the boomerang strategy so we correct for each other. It would be better to change the type of writing pack questions between activities so that we learn new things.

Appendix G

Focus Group Interview Two (Peer)

Q1: Which of the two types of corrective feedback did you like more: the teacher or teacher-peer (Boomerang)?? Why?

We prefer peer correction because we learned from it.

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher-peer (Boomerang) helped you improve your writing? Why?

Peer correction helped us improve because we understand each other's mistakes

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

We preferred just underlining because it helped us learn better and understand. We do not benefit much when the teacher gives us the correct answer.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?
We prefer focused and not all the errors corrected. It helped us follow up on the correction. Correcting only some of the mistakes was good because there weren't many mistakes to correct.

Q5: Would you rather the teacher corrects all your mistakes? Why?
No. it is better that she corrects some of the mistakes.

Q6: What did you like about peer correction? Would you prefer to self-correct?

That we helped each other correct.

We worked as a team and explained to each other.

I prefer working alone because I want to see my own mistakes.

Q7: What did you dislike about peer correction?

Nothing. We liked everything

Q8: Did you enjoy the corrective feedback activities (Boomerang)?? If not, why?

Yes we enjoyed them very much.

We liked it because we learned from it

It helped improve my writing.

It was fun correcting our mistakes and then checking the teacher's feedback.

Appendix H

Focus Group Interview Three (Peer)

Q1: Which of the two types of corrective feedback did you like more: the teacher or teacher-peer (Boomerang)? Why?

We prefer correcting for each other

Question 2. Which of the two types of corrective feedback do you think (the teacher or teacher-peer (Boomerang) helped you improve your writing? Why?

Correcting each other's mistakes helped improve our writing

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

All prefer indirect because it helped them reflect and understand their mistakes and other's mistakes.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

Yes. Focused is better. helped us correct the mistakes more easily.

Q5: Would you rather the teacher corrects all your mistakes? Why?

No we prefer the teacher corrects some of the mistakes and not all because Focused feedback was less confusing.

Q6: What did you like about peer correction? Would you prefer to self-correct?

We liked working together and helping each other learn. Teamwork was fun. We worked with students who are not good at English and we helped them. We explain the mistakes to each other and help each other understand. We prefer working with a peer.

Q7: What did you dislike about peer correction?

It was sometimes difficult to understand the other's mistakes. Also the handwriting was sometimes difficult to read.

Q8: Did you enjoy the corrective feedback activities (Boomerang)? If not, why?

Yes, we enjoyed the boomerang activity very much. We want the teacher to use it often.

Appendix I

Focus Group Interview Four (Peer)

Q1: Which of the two types of corrective feedback did you like more: the teacher or teacher-peer (Boomerang)? Why?

We prefer correcting with peers because it was fun.

Question 2. Which of the two types of corrective feedback do you think (the teacher or teacher-peer (Boomerang)?) helped you improve your writing? Why?

We prefer correcting with peers because it helped us understand our mistakes.

I prefer by myself instead of with a peer because it is calm and quiet.

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

We prefer indirect feedback because it helped us acknowledge and understand our mistakes. We do not benefit much nor understand form direct feedback when the teacher writes the correct answers.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

Focused feedback was better because we didn't have a lot of mistakes to look at

Q5: Would you rather the teacher corrects all your mistakes? Why?

No, we prefer focused feedback because it helped us follow up on the correction and understand our mistakes.

Q6: What did you like about peer correction? Would you prefer to self-correct?

We liked the fact that we can work together and help each other.

We also like working alone and correcting our mistakes because it will be calm and we can concentrate.

Q7: What did you dislike about peer correction?

Sometimes the errors were vague and it was difficult to correct the other's mistakes especially when there were many.

Q8: Did you enjoy the corrective feedback activities (Boomerang)? If not, why?

We enjoyed boomerang very much. It would be better if we use this correction method always.

Appendix J

Focus Group Interview Five (Self)

Q1: Which of the two types of corrective feedback did you like more: the teacher or by yourself/ or teacher/self (Boomerang)?? Why?

-we prefer to correct ourselves. Because we better understand our mistakes

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher/self (Boomerang)?) helped you improve your writing? Why?

-2 students said they would improve better if the teacher corrects after their correction

-4 said they would improve more if they corrected their own mistakes

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

- 2 prefer direct
- 4 prefer underlining only

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

- I did not notice that
- I noticed that and was surprised.
- I thought the teacher forgot them and I corrected the ones I noticed.

Q5: Would you rather the teacher corrects all your mistakes? Why?

They prefer unfocused feedback so they correct all their mistakes and learn

Q6: What did you like about self-correction? Would you prefer to correct with a peer?

I liked that I was able to think about my mistakes

I enjoyed correcting my mistakes because I learned

I liked working on my own and do not want to work with a peer

Q7: What did you dislike about self-correction?

Nothing

Sometimes I was not sure about the right answer

Q8: Did you enjoy the corrective feedback activities (Boomerang)?? If not, why?

They enjoyed the boomerang because they improved and learned from their mistakes.

Appendix K

Focus Group Interview Six (Self)

Q1: Which of the two types of corrective feedback did you like more: the teacher or by yourself/ or teacher/self (Boomerang)?? Why?

Self-correction is better

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher/self (Boomerang)?) helped you improve your writing? Why?

We see our mistakes correct them and understand them

We prefer alone rather than peer because we improve ourselves

I want to learn my own mistakes

If the other has made a mistake and my answer is correct, I will get mixed up.

I want to see my own mistakes and not someone else's

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

Better if the teacher underlines only because it makes us understand our mistakes and notice them.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

We liked focused because it helped us not feel discouraged when we see a lot of mistakes.

It made correction easier

Q5: Would you rather the teacher corrects all your mistakes? Why?

No. because we would feel down and mixed up if there are too many mistakes.

Q6: What did you like about self-correction? Would you prefer to correct with a peer?

We liked the fact that we were able to work alone and notice our own errors.

We do not prefer working with a peer because we may not agree on the correction of mistakes and have different opinions.

Q7: What did you dislike about self-correction?

nothing

Q8: Did you enjoy the corrective feedback activities (Boomerang)?? If not, why?

We loved it very much
Teachers should use this strategy with all subject matters
It was a lot of fun like an adventure discovering our mistakes

Appendix L

Focus Group Interview Seven (Self)

Q1: Which of the two types of corrective feedback did you like more: the teacher or by yourself/ or teacher/self (Boomerang)?? Why?

We prefer correcting our own mistakes rather than the teacher.

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher/self (Boomerang)?) helped you improve your writing? Why?

Correcting our own mistakes helped us improve our writing because we never look at the teacher's corrections. When we look at our mistakes and think about them and try to correct them we learn and we write better.

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

We prefer indirect feedback because it helped us understand our mistakes.it helped us think about the mistakes.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

We prefer focused because if there are too many mistakes we will feel discouraged and down.

Q5: Would you rather the teacher corrects all your mistakes? Why?

We prefer focused because it was easier to correct focused feedback.

Q6: What did you like about self- correction? Would you prefer working with a peer?

Yes we liked self-correction and we rather not work with peers because we will get confused when we see other's mistakes. We also improve from our own mistakes.

I want to see and learn my mistakes not someone else's.

Sometimes a peer gives incorrect feedback and I get more confused.

We might have different opinions of mistakes and we will feel lost.

I don't want to know what mistakes others have made.

Q7: What did you dislike about self-correction?

Nothing. We liked self-correction very much.

Q8: Did you enjoy the corrective feedback activities (Boomerang)? If not, why?

We liked being involved in the correction and the boomerang strategy. It was fun and we learned a lot.

Appendix M

Focus Group Interview Eight (Self)

Q1: Which of the two types of corrective feedback did you like more: the teacher or by yourself/ or teacher/self (Boomerang)?? Why?

We prefer to self correct our own mistakes. It helped us understand our mistakes.

Q2: Which of the two types of corrective feedback do you think (the teacher or teacher/self (Boomerang)?) helped you improve your writing? Why?

-We improve our writing better if we self correct

- also the teacher's correction will help us improve our writing

Q3: Do you prefer direct feedback, when the teacher corrects your mistakes and provides the answers or indirect feedback, when she just underlines your mistakes? Why?

We prefer indirect feedback so we can attempt to correct and learn.

Q4: Did you like the fact that the teacher corrected only some of the mistakes and not all of them (focused)? Why?

We like the fact that only some of the mistakes were corrected because it was easy for us to self-correct.

Q5: Would you rather the teacher corrects all your mistakes? Why?

but we also like to see all our mistakes corrected so we learn better.

Q6: What did you like about self-correction? Would you prefer to correct with a peer?

We liked working alone and prefer it over peer correction because it is calm and quiet and we learn and understand our mistakes.

Q7: What did you dislike about self-correction?

Nothing it was very good.

Q8: Did you enjoy the corrective feedback activities? If not, why?

Yes, we enjoyed the boomerang strategy a lot. It was fun and we learned a lot.

Appendix N

INFORMED PARENTAL CONSENT FORM

We invite your child to take part in a research study being conducted Mrs. Shoghig Kaloustian who is a Ph.D student at Universitat Autonoma de Barcelona and an lecturer at Haigazian University, Lebanon, as part of his/her Ph.D. studies. The study, as well as your child's rights as a participant, are described below.

Description: This study will examine students' development in L2 writing skills based on the provision of different types of written corrective feedback. Children will take part in writing activities and then they will receive and provide written corrective feedback on their own and their peer's written productions. They will also answer questions posed by the investigator about how they perceive the different types of written corrective feedback types. Your child's interview will be videotaped for use in standard research procedures (e.g. analysis of responses, presentation at professional conferences, etc.) Your child's identity will not be revealed to anyone but the principal investigator(s) and her designated research associates.

Confidentiality: Children's answers will be not be associated with their name. Rather, each child will be given an identification number on the interviewer's sheet. The videotape of your child's participation will be destroyed after it has been transcribed.

Risks & Benefits: There are no risks to your child's safety. You may opt to preview the videotape or watch it with your child. The writing prompts raise no sensitive or controversial issues and do not contain elements typically dangerous to children. Nevertheless, a copy of the prompts has been reviewed by the school administration and approved for use in this research.

Freedom to Withdraw or Refuse Participation: I understand that my child has the right to stop participating at any time, or to refuse to answer any of the interviewer's questions without prejudice from the researcher.

Grievance Procedure: If I have any concerns or am dissatisfied with any aspect of this study I may report my grievances anonymously if desired to the school principal and head of the elementary division.

Please feel free to ask the researcher any questions before signing the consent form or at any time during or after the study.

Principal Investigator: Mrs. Shoghig Kaloustian

Faculty Supervisor: Dr Elisabet Pladevall-Ballester

Informed Consent Statement

I, _____, give permission for my child, _____ to participate in the research project entitled, " *Boomerang your way to better writing* " The study has been explained to me and my questions answered to my satisfaction. I understand that my child's right to withdraw from participating or refuse to participate will be respected and that his/her responses and identity will be kept confidential. I give this consent voluntarily.

I agree to the researchers using my child's data in this research and any publications that results from the research.

I agree to have the researcher audio/videotape my child during this study. I understand this audio/video will only be used for the purposes of research (e.g. analysis of responses, transcriptions of responses, etc.) and will not be available to anyone aside from the researcher:

Parent/Guardian Signature:

_____ _____

Signature Date

Investigator Signature:

_____ _____

Signature Date