# The effectiveness of comprehensive corrective feedback-direct and indirect- on EFL learners' language accuracy, structural complexity and lexical diversity

A thesis submitted in partial fulfilment of the requirements of Nottingham Trent University for the degree of Doctor of Philosophy

By

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# Declaration

I hereby declare that this thesis, which is submitted for a PhD degree, is the result of my own humble work and effort, except where clear reference is specifically made and acknowledged. This research has not been submitted for any other degree at Nottingham Trent University or any other universities.

Signature:

*Amina Dabbouh*

# Abstract

This study investigates the effectiveness of direct and indirect written corrective feedback in improving EFL learners' written language accuracy, complexity and lexical diversity. It also examines the students' strategies in dealing with feedback. It explores students' experiences and students' attitudes towards written corrective feedback. It identifies the factors that affect learners' responses to written corrective feedback. These objectives are achieved by conducting a quasi-experiment followed by students' interviews and case studies.

The results reveal that the effectiveness of corrective feedback varies according to its type and the error type over time. Direct feedback is more effective in improving learners' overall language accuracy, both during revision and in subsequent writing. This finding is attributable to the fact that the participants preferred to have direct corrective feedback, as it is easy to understand and less time consuming when applying it. On the other hand, indirect corrective feedback effectively improves learners' overall accuracy in new written texts. This can be related to the fact that some learners prefer indirect corrective feedback because they believe that indirect correction encourages them to search for the correct forms to their errors and assists them to recognise the errors nature as well as remembering them and not repeating them in their subsequent writing. In addition, this study investigates whether the direct and indirect corrective feedback have different value for grammatical and non-grammatical errors. Results showed that both direct and indirect corrective feedback are beneficial in developing learners' grammatical and non-grammatical accuracy. Moreover, neither direct nor indirect corrective feedback resulted in simplified writing. The findings also revealed that learners value and appreciate to receive corrective feedback on their errors in their writing. They also prefer to have explicit corrections on all their errors (comprehensive CF). There are some difficulties that learners faced when processing feedback such as the teacher' hand writing and the time allocated for revision. In order to overcome these challenges, learners use some strategies, which may include asking for help from their teacher, revising their work carefully and using a grammar book or dictionary.

The findings from this study imply that comprehensive corrective feedback- direct and indirect- have shown to be valuable practice in improving EFL learners' accuracy and its effectiveness is durable.

# Dedication

*To my dear father Elbadri, and to my beloved mother Fatema*

*To my husband Salah, my daughter Mariah and my son Ahmed*

*To the soul of my brother Sodiq and to my brothers Mohsen, Anwer and Mohammed*

*To my sisters Fathia, Lyla, Mona and Najmia*

*To My father in law Nasrideen, and to my mother in law Soaad*

*To my sisters and brothers in law*

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# Abbreviations

| | |
|---|---|
| **BA** | Bachelor of Arts |
| **EFL** | English as a Foreign Language |
| **ESL** | English as a Second Language |
| **CF** | Corrective Feedback |
| **FL** | Foreign Language |
| **L1** | First Language |
| **L2** | Second Language |
| **SLA** | Second Language Acquisition |
| **CA** | Contrastive Analysis |

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# Chapter 1. Introduction

## 1.1. Chapter Overview

This chapter presents the study and some relevant issues such as background of the study, writing in Libyan context, common approaches to teaching writing in Libya and the description of the context where the study took place. This is followed by an outline of the aims and the significance of this research. It also presents the research focus and questions. Finally, a presentation of the thesis structure and outline is given.

## 1.2. Background of the Study

This study tries to analyse the current written corrective feedback research and attempts to apply its methodologies and broaden the findings by utilising quantitative (quasi-experiment) and qualitative (interview and case study) methodologies, applying insights and paradigms from previous studies on SL/FL learners and different forms of corrective feedback. This research adds to previous studies by concentrating attention on the effectiveness of comprehensive direct and indirect written feedback in improving learners' overall written accuracy, structural complexity as well as lexical diversity. Specifically, this study aims to determine whether the conclusions of the current controlled quantitative research (e.g., Bitchener & Knoch, 2010b; Manchon, 2011; Van Beuningan, et al., 2008; Van Beuningan, et al., 2012), which compared written corrective feedback direct and indirect, could be effective on learners' overall accuracy, grammatical accuracy and non-grammatical accuracy. In addition, it also aims to examine whether CF leads learners to avoid making errors by simplifying their writing. Furthermore, employing a case study methodology is to investigate other different aspects, which can be linked to the quantitative findings in order to provide a clearer view about FL/SL learners' response to teachers' written feedback. This study's design and data collection process has been influenced by the following findings:

Focused written corrective feedback (i.e., correction is provided for particular error types) is more valuable than unfocused (comprehensive) corrective feedback (i.e., major correction of learner's all errors noted by the teacher) (e.g., Bitchenere & Knoch, 2009. 2010a, 2010b; Ellis, Sheen, Murakami & Takashima, 2008; Sheen, 2007, Sheen, Wright, & Moldawa, 2009; Van Beuningan, et al., 2012).

Regarding writing development, indirect written corrective feedback is likely to be more beneficial for the long-term learning than direct written corrective feedback (e.g., Ferris, 2006; Hendrickson, 1980; Lalande, 1982). On the other hand, in contexts where language acquisition is the chief focus, not writing development, direct written corrective feedback is more valuable as it efficiently delivers clear information about the errors being corrected (e.g., Bitchener & Knoch, 2010b; Manchon, 2011; Van Beuningan, et al., 2008; Van Beuningan, et al., 2012).

## 1.3. Writing in the Libyan Context

Writing plays a significant role in second language improvement, not only in the improvement of accuracy but also in the development of new structures (e.g., Roca de Larios, Manchón, & Murphy, 2006). One of the choices used by teachers to promote productive language use is involving learners to write. Even in the native language context, writing has been argued to be a challenging task as it requires consistent concentration on the content of the text, its organisation, its construction and its linguistic accuracy (e.g., Kellog, 1994; Schoonen et al., 2003). It involves student writers to be fully engaged in continual process of planning, organising, reading, and revising their text in order to produce a text that achieves the requirements of writing (e.g., Flower & Hayes, 1980). Undeniably, writing and learning to write in English as SL/FL could be recognised even more challenging. While producing grammatically accurate sentences tend to be a habitual procedure in one's first language (L1), this is not the case in SL/FL (e.g., Zimmerman, 2000). The perspective 'learning-to-write' is one of the tasks SL/ FL teachers face as they have to guide their learners through the demanding process of being able to write in the target language.

While writing in SL/FL has been claimed to be demanding, it could at the same time be recognised of fundamental significance to SL/FL development. Contemporary opinions on second language acquisition (SLA) have implicated that exposing learners to ample L2 input is not sufficient, and that it is essential for SL/FL students to be encouraged to 'actively use and produce the target language' (e.g., Ellis, 2003; 2005; Skehan, 1995; Swain, 1985; 1995). The active use of language forms, functions, and concepts is considered to play a vital role in learners' language learning process, as output production pushes learners to process language more intensely and make more intellectual effort than they need to do while they are listening and reading (Van Eerde & Hajer, 2008).

Encouraging learners to engage in SL/FL, writing could be seen as a way to learn the language. This is the main focus of this study “writing to learn”.

Many SL/FL learners in general and Libyan learners in particular, often consider their level in writing is low and usually ask their teachers how to develop their writing abilities. The most common issues in writing that Libyan learners find hard to overcome are mostly in vocabulary, syntax, morphology and discourse. For instance, when they come to write, students lack the necessary vocabulary items and grammatical structures that service a particular discourse.

Regarding accuracy in particular, most students writing in English commit several grammatical errors such using the proper verb tense, auxiliaries (that is entirely different in Arabic), word order (as in adjective and noun), cohesion, prepositions, definite and indefinite articles and other types. Therefore, some students find it difficult to structure an accurate and simple sentence in English.

Furthermore, Libyan learners face a number of difficulties in terms of paragraph organisation. For instance, based on the researcher’s personal experience, learners do not often consider the target readers when they write, since they are not aware of the importance of impression they convey through their writing to the audience. Consequently, learners encounter difficulties in setting their targets and arranging their thoughts and ideas. That results in the fact that some students translate their ideas and thoughts from Arabic in to English when they write in English.

Learners do not only have difficulties with organisation, but they also face challenges with discourse markers, as they are not able to write cohesively or produce well linked structures. In general, they have problems in producing their writing in different genres. Learners do not normally know the appropriate vocabulary and style which are necessary for particular tasks in writing.

Learners also do not practice in first and the target languages sufficiently. In their Arabic language classes, the teaching of writing is mainly focused on micro level aspects and attempts to employ the grammatical learnt rules in producing accurate sentences. Furthermore, the teachers of written Arabic assume that learners are aware of how to produce long pieces of writing as Arabic language is their native language. Therefore, insufficient practice is provided and often teachers do not give sufficient attention to style and organisation. The lack of practice in writing can also be linked to the cultural factor.

In Libya, it is not common to communicate through writing letters or sending cards to people.

As a lecturer in English and a former student myself in Libya, I believe that writing is viewed as a challenging skill because students face previously mentioned difficulties. Consequently, most teachers of English in Libyan schools rarely devote time and effort to teaching writing. This can also lead to the fact that students become demotivated and may lose hope in passing the subject. Linking these attitudinal concerns is that English competence of Libyan students seems to be limited due to the insufficient exposure to the language, as they only use it in the classroom and never use it outside. Furthermore, the materials and sources that can help in developing and improving students' ability such as books, magazines, articles and stories are not available, even if they are, they are written in Arabic. In other words, English written materials are not widely available in Libya (and even the internet connections are not good) and culturally Libyans do not have the habit of wide reading, even in their own language, which is an additional challenge for them in writing.

Another concern related to the difficulties faced by Libyan learners and leading to their lack of writing skills, is their mother tongue interference. In SL/FL contexts in general and in Libyan context in particular, English is significantly different from their mother tongue, and because learners normally write in L1 and afterwards translate into English; consequently, this affects negatively on the English writing quality of the students. In this way, the learners transfer the aspects needed such as their ideas, forms, sayings, idioms, meaning and sentence structures from first language to the target language. This results in a mismatching in the language system and thus leads students to commit errors in their writing. Furthermore, due to the students' lack of required knowledge in the target language, they tend to rely on their first language. This can be related to learners' learning experiences in secondary school, where they are used to being taught by the grammar translation method, in which learners translate texts into the Arabic language. Consequently, learners tend to translate their Arabic thoughts and ideas and write them in English sentences. As a result, many errors such as word order and wrong collocations occur in students' writing. For instance, in the English language the adjectives come before the nouns whereas in Arabic they follow the noun.

## 1.4. Approaches to Teaching Writing in Libya

This section presents the main approaches to teaching writing in Libyan classrooms: product approach, process approach, genre approach and process-genre approach. In this section I will discuss the mechanisms of these approaches, the materials required in each approach as well as teachers' and students' roles when applying these methodologies. Besides, it highlights the focus and limitations of these approaches.

### 1.4.1. Product Approach

This approach typically focuses on linguistic knowledge such as using vocabulary, grammatical rules and cohesive devises of the target language appropriately (Tribble, 2003). The product approach is characterised by the focus on the written text production regardless of the process needed to produce it. This approach is considered as a traditional, text-based approach that is still utilised in different ESL/EFL classrooms, including the Libyan writing classes (Grabe & Kaplan, 1996). In the Libyan context, the focus of this teaching method is mainly on form and accuracy, and the learners' ability to use the grammatical structures learnt in the classroom that is simply assessed by means of the written text (Richards, 1990).

The product approach extremely concentrates on the language input because it provides an essential basis for imitation and manipulation of the provided models. Accordingly, the product approach considers writing as being primarily about linguistic knowledge, and thus focuses on the syntax, grammar and word choice of the written context. Most of the time students are encouraged by the writing tasks to imitate the texts and models provided by teachers or textbooks. Consequently, the final product that reveals the writer's language knowledge is very valued (McDonough & Show, 2003).

The product approach materials mainly focus on the final product accuracy (i.e., what the learners write and produce at the end of the lesson). These materials are based on several aspects such as description and topic sentences (Richards & Lockhart, 1995). Libyan teachers think that it is essential for learners to write accurate sentences, the product approach materials are commonly utilised to teach writing in Libya. With regard to the teachers' assumptions that grammar is the backbone of the language and the importance of writing accurate grammatical structures, most Libyan teachers of writing select their materials, which are designed to cover selection of grammatical structures and sentence patterns to be taught to their students. These grammatical structures include tenses,

adjectives, and clauses which are gradually presented in the syllabuses (Nunan, 1988). In addition, these materials are also organised around vocabulary in use.

Writing instruction in the product approach has four phases: familiarisation; controlled writing; guided writing and free writing. Familiarisation stage requires students to learn particular aspects of grammatical structures and vocabulary. During the controlled phase, students write sentences using the knowledge they have already learnt in the familiarisation phase. In the guided writing phase, learners are provided with a topic and asked to write about it through a presentation of a model text. Finally, the phase of free writing is when learners have much freedom to utilise the writing skills in authentic activities such as writing descriptions, letters or stories. The standard application of the product approach might engage learners to learn different forms of descriptions. For instance, if they are asked to write a description of a person, in this case students are required to learn the language they need to use in their descriptions such as adjectives, which normally happens in the familiarisation stage. At the controlled and guided phases, the learners write some basic sentences about people or use a piece of guided writing based on a picture of a person. Finally, during the free phase, the learners produce error free a description of a person who has inspired them by imitating the models provided in the guided stage (Badger & White, 2000).

The teachers' main role in this approach is to improve learners' good language habits, which can be mostly achieved by pattern drills, memorisation and repetition of structural forms (Cook, 1992). Brook and Brooks (1999) clarify that the teacher's role is often to shift their attention to the passive learners. The learners have a little chance for engaging, asking questions, thinking critically or interacting with each other (Grab & Kaplan, 1996).

The reasons behind using product approach in Libyan classrooms can be linked to that most writing classrooms in Libya are teacher-centred classes, as the teachers often clarify the information and dominate the talk in the classroom. Learners normally take notes from the board to use this information for their exams. The textbook is the main source of knowledge and teachers usually rely heavily on them. Students do not have much opportunity to practice long pieces of writing. The teaching practice is thus characterised by the teaching of grammatical rules, occasionally by translating them into the learners' mother tongue, and these activities are commonly provided on the sentence level. The teaching practice values students' knowledge about the language rather than their comprehension or fluency of the text they produce in the end. From this perspective, it is

important that the learners are able to write accurately grammatical sentences, instead of fluent communicative writing.

Based on the expectations that Libyan teachers have about their principal roles of the class as a "source of knowledge", the approach used widely is the one focuses on PPP (i.e., presentation, practice and performance). These mechanisms are similar to the product approach stages. Teachers often present the new grammatical patterns such as adjectives for describing peoples' personality (familiarisation stage). Then the practice stage when the learners start to use the new patterns of the language by writing sentences that practice using the presented adjectives (controlled stage). In the performance stage, students try to describe themselves or each other (free writing stage). This type of practice is used to check the learners' understanding of the lesson (Richards & Renandya, 2004).

It might be noted that the product approach, the Libyan version in particular, has some limitations. Firstly, the students' role is typically a passive one; they are oriented to respond correctly to stimuli. This approach focuses on the accurate response and does not enable students to learn from their errors. Secondly, product approach ignores the importance of the processes required in the language used, as well as the processes that can lead to language learning. Finally, the students have a limitation in the opportunities that enable them to engage in real process of interaction and analysis to learn more efficiently or examine significant aspects of the communicative language. The use of the product approach in Libya develops students' ability to write at the sentence level but not at length.

### 1.4.2. Process Approach

The process approach is a way to teach writing in which the focus is transferred from students' final texts to the way of writing them. This means that the emphasis moves from the text to the learners (writer) (Tribble, 2003). As a result, the teacher's role is to evaluate and facilitate the learning process, by providing writing activities that enable students to go through different steps, such as idea generation and data collection then the production of final text. The typical four stages of the process approach are: prewriting, composing, drafting, revising and editing (Wyse & Jones, 2001).

The role of the student in the process approach transforms from a passive receiver of knowledge to an active applicant in the learning process. Learners actively construct their information rather than just automatically receiving it from the teacher or the text book.

In this view, the learners' errors are recognised as a positive sign of their development (Schunk, 2004).

The courses of writing that employ the process approach consider skills and processes of brainstorming, organising the ideas, drafting, and revising (Richards & Renandya, 2004). The syllabuses are process-based and focus on the change from conveying information to learners to communicative approaches as well as they emphasise learners' development.

A standard pre-writing activity requires learners to generate their ideas on the topic of descripting people, or to note down a list of thoughts and ideas to be used in the writing practice (Nation, 2009). During the writing drafts stage, the students would plan to write a description of a person which is based on their brainstorming and ideas generating. This is followed by a discussion and then learners might review their first draft independently, or with their peers, or in groups. The final step is when students edit their writing to produce the final draft. During this process, the teachers assist the learners' writing and aid them in organising their ideas and reviewing their drafts by providing group activities, teacher and student conference, and peer work (Susser, 1994).

Teachers' role in the process approach is to assist students to construct their knowledge and give learners the opportunities and encourage them to build it up. The teachers are guiders as they introduce new ideas as well as facilitators so that they provide the support to the students.

In Libyan classrooms, some teachers of writing try to employ the process approach. Some of these teachers obtain their degrees of MA/ PhD from countries like the UK, USA and Canada where they learnt various teaching methodologies. Some teachers in Libyan universities are from other countries, and they attempt to use different methods instead of using the traditional ones. However, the way of teaching English writing in Libya is not broadly influenced by the process approach. There are different factors that can influence the use of the process approach in writing classrooms in Libya. Firstly, teachers find it easy when adopting the same methodologies, they have been taught with. As a result, they tend to use the traditional methods they inherited from their teachers such as grammar translation method and audio-lingual approach. This could be attributed to the fact that some teachers are not aware of new teaching methodologies, or they might lack the confidence that enables them to try different approaches.

Consequently, some teachers are not confident enough to leave the safety of the traditional methods and take the risk of attempting other teaching approaches. Secondly,

selecting the teaching methods depends on the teachers' roles in the classroom. As the teachers see their roles as evaluators and their main obligation is to teach learners how to write accurate sentences and structures, they tend to choose the approaches that help them to control the classroom. Thirdly, teachers avoid co-operative work such as letting students work in pairs or small groups due to the low proficiency level of students and their big number. Besides, working in groups will decrease teachers' control over the classroom. Finally, some writing teachers in Libya cannot apply this approach due to their obligation of covering grammar focused teaching and exam-oriented syllabus. The process approach lets learners write and review the drafts which are not suitable for timed exams.

### 1.4.3. Genre Approach

This approach enables teachers to classify the types of texts which learners are obligated to compose in the target contexts and to organise their courses to achieve their goals and meet their students' needs. The texts in this approach are means by which the writer communicates with readers. The main focus of a Genre approach is to emphasise the readers' role in writing, in addition, a social feature to writing research by expanding the way in which the writer engages with a reader in producing a coherent text (Tribble, 2003).

The Genre approach enables teachers and students to consider that writing differs according to the social context in which it is created. For instance, writing business letters, and writing different reports related to different situations are used to serve different purposes (Hyland, 2007).

Materials for Genre writing are often organised on different themes. These themes are linked to authentic activities in which students achieve specific things through writing. Applying authentic themes, such as education work could encourage learners to rely on their knowledge and personal experience.

This approach emphasises the notion of scaffolding which focuses on the role of peers' interaction and "experienced others" and focuses on what students are able to do without teachers' assistance rather than what they can do now. Allowing learners to work with each other can lead to far more effective learning than when learners work independently (Hyland, 2007). This collaborative work relies on the teachers' choice of activities and participation to scaffold writing from utilising controlled activities to free activities because learners steadily grasp the processes of writing the provided genre successfully.

With regard to Libyan writing classes, scaffolding is achieved in different procedures such as modelling and analysing the texts, and teachers' instructions as a form of input. The teachers use writing frames: plans utilised to scaffold and prompt learners' writing. Such frames provide students with a genre outline, which helps them to begin, unite and improve their writing effectively while focusing on what they tend to include in their texts. The frames also provide a structure for writing that takes different forms relying on the genre, the reason of writing and students' proficiency level. The teacher typically provides modelling and then the frames after providing comprehensive clarification of the forms required for a specific type of text.

### 1.4.4. Process Genre Approaches

This approach is a compensation of the aforementioned methodologies in which writing requires the language knowledge (similar to product and Genre approaches), the context knowledge and the writing purposes (similar to Genre approach), and the use of language skills (similar to process approach). Writing development of students involves input provision to which learners respond (similar to product and Genre approaches) and attention on learners' skills (similar to process approach) (Badger & White, 2000).

A typical task in process genre writing could be exemplified by writing a car description of a car to sell it. The purpose implications are the focus issue, and the relationship between writer and reader. The genre analysis concentrates on the use of language in a certain text (about the car) while the teachers need to consider the processes that enable learners to write a text reflecting the components of the process genre approach (i.e., language knowledge, the context knowledge, and the use of the language skills). The genre analysis also focuses on the process that enables learners to select the features of the car they should consider in their description as well as their competence of using the appropriate expressions and structures (Badger & White, 2000).

The role of the teachers is to help their learners to be aware of the writing purpose of the text and the social context. Consequently, learners need to recognise the purpose of the task: selling the car, writing descriptions in different ways, vocabulary and grammar knowledge, and revising and redrafting skills in order to write a description of a car.

Learners' proficiency level and their knowledge of the topic can play an important role in providing the suitable tasks by the teachers. Referring to the previous example, learners who have knowledge of different adjectives for describing a car might require less input compared with learners who do not. In the case when learners do not have sufficient

knowledge, teachers of writing could support them through different sources: the input in terms of instructions and clarifications, students to work in groups, samples of the target text and use them as models to be followed (Hyland, 2007).

Like ESL/EFL writing teachers, some writing teachers in Libya usually attempt to utilise a combination of different approaches and they combine these methods to fit their plans and goals that they aim to achieve in their courses. However, the product approach is commonly used in Libyan classrooms with some attempt to adopt the process approach.

## 1.5. The Context of the Study

To undertake the fieldwork for this study, Azzawia University in Libya was selected to be the context of this study. The target participants were undergraduate students at the department of English in the Faculty of Arts. All participants were first-year undergraduate students and the study took place during their first semester. Azzawia University was chosen because it is one of the well-known universities in Libya and the department of English has a time-honoured history in teaching English language. Furthermore, I have been a teacher of English in this university for more than three years. This enables me to easily communicate freely with the university, as most of the university staff and administrators are well known to me, especially those who work at the department of English.

The Faculty of Arts at Azzawia University consists of different departments and the department of English is one of them. This department provides a BA programme (in English) where students can attend after finishing their secondary school and would like to be specialists in the English language, or as teachers of English, whether in primary or secondary schools. This course aims at providing students with a thorough knowledge of English language and preparing them to become teachers of English at different type of schools, to complete their postgraduate studies in English language, and to satisfy the job market needs in the diverse arenas where English language has a significant role, such as in the oil industry and in different ministries.

Students who successfully get a secondary certificate may continue their studies in the department of English, but they must have a grade average of not less than 65% in order to be admitted to the Faculty of Arts. They study in a four-year programme (full-time) to gain a BA degree in English language. This programme includes English language skills, English literature, linguistics, applied linguistics as well as translation ***(see Table 1.1 for***

***the full list of subjects at the department)***. The instruction and examinations are in English language. Most of the graduates work as English teachers.

University lecturers must have PhD Degrees and Master's Degrees in either English teaching or applied linguistics from the organisations of higher studies in Libya such as the Academy of Higher Studies.

Furthermore, the Libyan education ministry encourages the students to study abroad, thus there is a number of university lecturers who gain their degrees from English speaking countries such as the UK, the USA, and Canada. In addition, due to the small number of English language teachers in Libya, Libyan universities recruit a number of Arab and Asian teachers from Iraq, India, and Philippines. With respect to teachers' workloads, most of the teachers in the department of English teach more than one subject due to the insufficient number of the teachers and to the large number of students. Apart from general subjects, all specialised subjects have to be taught twice a week.

The teachers are flexible in designing their courses and selecting syllabus and materials for their teaching. They are also responsible for selecting the suitable methods to teach, the type of classroom interaction that can best support their teaching, and accordingly the materials, tasks and activities. Besides, the students at the university level do not need to take national exams. The tests thereby are designed without the demands of finishing the entire curriculum and without the stresses of preparing students for their final exams. Teachers' instruction is influenced by learners' different levels, large class size (about 60-80 in each class) and a limited choice of textbooks. The curriculum is used in teaching English skills (i.e. writing and speaking) and it is skill-based syllabus. This kind of syllabus links linguistic competences such as grammar, vocabulary and pronunciation with general language skills, such as writing paragraphs or giving oral presentations. The skill-based syllabus aims at teaching a particular language skill and improving linguistic competence in FL/ SL language (Richards, 1990).

With regard to the teaching of writing, the product approach still dominates the teaching practice in teaching writing at Azzawia University because it enables teachers to concentrate on teaching the rules of grammar and hold control over the classroom. On the other hand, applying the process approach can be a challenge as it needs learners to write in multiple drafts which would consume a lot of time to be corrected. Furthermore, as process approach requires students to work in groups or in pairs, this might lead to a reduction in the control over the classroom.

Writing teachers select their teaching materials relying on their experience of students and context. They could get recommendations from the head of the department or colleagues who suggest materials that can be utilised in their teaching. The university writing teachers have the assumption that the teaching of writing in secondary school is not effective because it is exam-oriented practice and students do not sufficiently practise writing. The university teachers, especially first year teachers' duty is to treat the learners as novices and focus more on accuracy. The emphasis on form manipulates their teaching practice in the selections of materials, tasks and roles. For the first year, students do **Writing I** course, which mainly focuses on familiarising learners with paragraph writing and enabling them to write different types of descriptive paragraphs. During this course, the teachers start by giving the learners a revision on the structure of English sentences and provide them with chances to practice writing the different types of sentences such as simple sentences, compound sentences, complex sentences, and compound-complex sentences. Then the learners are given the opportunities to write their own descriptive paragraphs about topics chosen by their instructor to describe people, places, things and events. In the second half of the academic year, students should be familiarised with the aspects of academic paragraphs including: topic sentences, supporting sentences and concluding sentences as well as with the paragraph unity and coherence. The teachers provide the learners with samples of academic paragraphs as well as some written activities that aid students to learn the basics of the academic paragraph.

In the second year, the students take **Writing II**. During this course, students are required to be familiar with different types of paragraphs such as example, process, opinion and narrative paragraphs. The course starts with a revision of the sentence structures and the basic features of the academic text. This is followed by analysing some samples of the different types of texts. In addition, the teachers provide different exercises that help students to understand the structures of these paragraphs and develop students' grammatical and lexical awareness that they need to use in such texts. Finally, the students are asked to write their own texts of different types such as an example text which requires examples to support their ideas, a process paragraph that needs explaining how to do something gradually, an opinion text that requires stating and giving evidence to support their views about a certain topic or issue and describing their stories by focusing on main events and plots in their narrative paragraph.

In the third year, students do **Writing III** course, which its main aim is to qualify students to write essays, Curriculum Vitae and formal and informal letters. Students are

familiarised with academic essay structure and provided with exercises that consolidate their understanding of unity and coherence in essay writing. The teachers provide the learners with writing opportunities to practice writing their essays, describing people, places, objects or events. Furthermore, the students are taught the types of formal and informal letters and are asked to write formal letters (e.g. applying for a place at a university, applying for job, hotel reservation) and informal letters (e.g. for friends, member of family/ relatives). Moreover, the learners are familiarised with the format of CVs and then are asked to write their own CVs.

**Writing IV** course for the fourth-year students aims to familiarise learners to write different types of five paragraph essays like process analysis essays, cause and effect essays and argumentative essays. In this course, students learn how to distinguish and recognise the essay organisations and the sentence structures and appropriate lexis needed for these types of essays. The teachers assist the students by providing samples of different types of essays. They also give learners the chances to apply the knowledge they have learnt by writing different types of essays about different topics. The essay topics and essay questions are about different issues such as describing a process, explaining causes and solutions, and arguing stances and opinions. During the final year of the writing course, the students learn how to produce a research paper to enable them to submit the required 3000-word project paper before they graduate from the department of English.

Students have to take a mid-term exam, which weights 50% from the total mark of the writing course; 40% is given for the exam and 10% for the attendance and participation. The final exam weights 50%. The test papers are marked by the tutor of the subject and not by another teacher. All test papers are individually marked and there is no second marking. No marking standardisation takes place (i.e., students' papers are not marked against a standardised test paper where a group of teachers agree on the final mark of that paper). In addition, there is no marking code that the teacher uses. However, the teacher's comments on the test paper tend to be simple, clear and straightforward for students to understand, highlighting all major areas of error and correction (e.g., Grammar, Sentence and paragraph structure, Vocabulary, etc.) ***(See Appendix 3 for teacher's comments)***. There is no writing criteria scheme, but the paper is given a final score. There may not be criteria but there might be certain descriptions (main areas of focus) which the teacher looks at when marking such as essay structure, organisation, sentence structure and punctuation, and has the student answered the essay question.

The aims and the outcomes of teaching the writing course in the department of English in Azzawia University are to enable students to be aware of different writing genre such as formal and informal letters, writing stories, writing short reports, filling in forms, writing academic essays. The students will be familiarised with grammatical and lexical features in the sentence level, and with structural and organisational rules in writing in a paragraph level. The University writing course is an essential course for the students because they will become teachers of English to teach English language as a foreign language in different schools (i.e., primary and secondary schools). In addition, some of them will complete their postgraduate studies in English language, and the Couse of writing is also important to satisfy the job market needs in the diverse arenas where English language has a significant role, such as in the oil industry and in different ministries. The writing course' outcomes can be summarised as the following, by the end of the course the students will be able:

- to be familiar with paragraph writing and enables them to write different types of descriptive paragraphs.
- to be aware of different types of paragraphs such as example, process, opinion and narrative paragraphs.
- to write essays, Curriculum Vitae and formal and informal letters.
- to write different types of five paragraph essays like process analysis essays, cause and effect essays and argumentative essays.

**Table 1-1 The subjects taught at the department of English at Azzawia University**

| First year Subjects | Second year Subjects | Third year Subjects | Fourth year Subjects |
|---|---|---|---|
| Grammar I | Grammar II | Literary Criticism | Morphology |
| Oral Practice I | Oral Practice II | Phonology | Varieties of English |
| Reading Comprehension I | Reading Comprehension II | Reading Comprehension III | Novel II |
| Phonetics I | Phonetics II | Translation I | Translation II |
| Writing I | Writing II | Writing III | Writing IV |
| French Language I | French Language II | Research Methodology | Poetry |
| Arabic Language I | Arabic Language II | Novel I | Applied linguistics |
| History of Libya | Linguistics | Grammatical Structure I | Grammatical Structure II |
| Psychology | Literature | Drama I | Drama II |
| | Geography of Libya | | |
| | Islamic Culture | | |

## 1.6. Focus of the Present Study

The value of written corrective feedback on second language learners' writing accuracy has been investigated for decades (e.g., Ferris, 1999, 2006; Lalande, 1982; Truscott, 1996, 2007; Chandler, 2003; Bitchener, 2008; Bitchener & Knoch, 2008, 2010; Ellis et al., 2008; Sheen et al., 2009; Kepner, 1991; Semke, 1984; Robb et al., 1986, Sheppard, 1992), and the findings are still inconclusive. However, writing teachers still consider learners writing as an essential component of pedagogical practice, and they consequently devote much time and effort marking, correcting errors and giving comments on content and organisation. Thus, the inquiry into corrective feedback concerns both foreign language researchers and pedagogues. The present study focused on exploring the effectiveness of teacher comprehensive written corrective feedback on the improvement of overall accuracy, written structural complexity as well as vocabulary richness of learners' writing. In addition, it focuses on how learners process and engage with the CF they receive, and identifying learners' strategies, and difficulties when dealing with CF as well as their preferences and attitudes towards corrective feedback.

## 1.7. Aims of the Study

The main aims of this study are to investigate the effectiveness of two different types of written corrective feedback (i.e. direct and indirect corrective feedback) in improving learners' accuracy, structural complexity and lexical diversity. More specifically, the study analyses the differences in learners' overall accuracy, grammatical accuracy, non-grammatical accuracy, structural complexity, and lexical diversity during the revision and when producing new texts over time. It also investigates learners' engagement with corrective feedback to broaden the awareness on how learners use corrective feedback, what strategies they utilise when dealing with corrective feedback, what difficulties encountered by learners when processing CF, what learners' preferences and attitudes towards corrective feedback.

## 1.8. Research Questions

Conclusive evidence has not been provided on the question *whether* and *how* corrective feedback should be provided. The present study is focused on *what, how & why* and is aimed at contributing to the corrective error feedback debate by adopting a rigorous carefully designed methodology (quasi-experimental method) and addressing the following research questions:

1. *How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity during revision?*
2. *How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity when producing new texts?*
3. *How effective is comprehensive written corrective feedback (direct & indirect) on grammatical and non-grammatical errors over time?*
4. *How do EFL (Libyan) students apply direct and indirect comprehensive feedback to improve their writing accuracy?*
5. *What factors might enhance or hinder students to benefit from written corrective feedback?*

## 1.9. The Significance of the Study

Despite the increased amount of scholarly research on written corrective feedback in relation to both foreign and second language contexts, there is need for further research on the effectiveness of written corrective feedback. This research is an attempt to heed Van Beuningen's 2012 and Ferris' 2013 call for more research on written corrective feedback and continue the line of feedback research that focuses on the effectiveness of comprehensive corrective feedback as well as the learners' engagements and their strategies, difficulties and attitudes towards corrective feedback. The findings of this study will propose suggestions and implications that could help teachers to exploit the effectiveness of their feedback on improving their learners' writing.

Moreover, the importance of this research is that it could aid to give a fully clear picture about how the EFL learners process written feedback during the revision and how they apply the knowledge they learnt to their subsequent writing. It might also help to give insights on the strategies students employed while dealing with written corrective feedback as well as identify the challenges they faced. The results of the current work would also provide more clarification about the type of the corrective feedback the students preferred and the reasons behind their preferences.

Research that statistically compares error rates in consecutive pieces of writing may show an improvement in accuracy, but it cannot show how the error correction was responsible for the improvement. Qualitative research with individual students can at least begin to fill in the gaps in explaining how learners process corrections and how it enables them to write more accurately in subsequent papers (if they do). In the published literature, few studies have sought to link learner engagement with error correction feedback (e.g., Ferris, 2006, 2010; Flahive, 2010; Goldstein, 2005, 2006, 2010; Hyland, 2003; Hyland & Hyland, 2006a; Reynolds, 2010). There are also other studies (e.g. Cohen & Robbins,

1976; Hyland, 2003; Qi & Lapkin, 2001; Storch & Wigglesworth, 2010) that have investigated texts revised after teacher-student conferences feedback.

The findings revealed that individual students react differently to teacher feedback and a range of other factors such as students' L1 background and attitude affect students when applying written corrective feedback, which they have received. Two recent case studies (Ferris, et al., 2013; Han & Hyland, 2015) have explored the impact of indirect focused feedback on learners' new tasks. Their findings concluded that considering student texts in isolation will not provide researchers or teachers with sufficient information about whether corrective feedback helps student writers improve (or does not). Despite the illuminating findings, it can be noted that there is a gap in recent research related to careful consideration of individual learners' behaviour as they receive, process and apply feedback. Van Beuningen (2012) and Ferris (2013) called for further research considering individual student responses to written corrective feedback. Therefore, this study may help to provide a more thorough understanding of what, how, and why individual learners' errors change over time after receiving comprehensive feedback, in addition to investigating changes in accuracy and complexity over time of the writing of a cohort receiving comprehensive feedback.

## 1.10. Thesis Outline

This thesis consists of six chapters. The introduction chapter, the present one, presents writing in SL/FL contexts, writing in Libyan classrooms, approaches to teaching writing in Libya, the context of the study. It also presents the aims and the significance of this study followed by the focus of the study and its research questions.

**Chapter 2** presents the theoretical and empirical background to this study. It reviews the debates underpinning the use of written corrective feedback in SL/FL classrooms, reviews the arguments surrounding the role of CF in SL/FL learning, and gives a summary of the findings approached by earlier research.

**Chapter 3** presents the research methodology of the study. It begins with research design, explains the different approaches employed in this research (quantitative method, qualitative method, and mixed methods) and presents different instruments utilised to collect and analyse the data of this study (quasi-experiment, and case studies). It also provides an explanation of the reasons for adopting these methods and instruments to collect and analyse the data. Then, it clarifies how the participants were recruited for this study. It ends with a discussion of the ethical issues related to the study.

**Chapter 4** presents the results of the quantitative data analysis. It identifies the effectiveness of direct and indirect comprehensive error corrections on both learners' revised and newly written texts. It presents the outcome from the statistical analysis of different stages of the experiments.

**Chapter 5** presents the findings of the qualitative data analysis of the study. It starts with general characteristics framed by the findings of the interviews. Then, case studies reports are presented to broaden the understanding on how learners engage with the corrective feedback they receive, and what the strategies, difficulties, attitudes and contextual factors are, that learners experience when processing corrective feedback.

**Chapter 6** provides the overall conclusions distilled from the empirical work reported on in Chapter four and Chapter five. It also outlines the practical implications of the current findings and sketches some limitations of the present study that should be addressed in future research.

# Chapter 2. The Literature Review

## 2.1. Chapter Overview

Teachers review students' texts and give feedback on a various number of issues. Teachers may target the content, the ideas presentation and organisation, the appropriate use of vocabulary and other issues. The feedback on the linguistic errors has attracted great attention by researchers. Teachers' responses to learners' inaccurate use of the target language in writing have been generally referred to as corrective feedback (CF) or error correction/ treatment. The value of CF has been investigated by several studies that have oriented both their theories and methodologies within the field of L2 writing and the second language acquisition (SLA) domain.

Research in the field of L2 writing focuses primarily on investigating the role of feedback in the process of developing learners' skills of revision and editing. This perception has been referred to as the "learning-to-write" strand of L2 writing (Leki, Cumming & Silva, 2008). Researchers (e.g. Chandler, 2003; Ferris, 2006) examined if, and how CF can be as an aiding editing tool. They have been mainly interested in the question "if and how" CF can enhance learners to have more ability to revise and become self-editing writers.

The focus of recent research, however, has been altered concerning the possibility of CF in facilitating learners' interlanguage development. The numerous studies have been examining whether receiving and processing written CF can result into L2/FL learning (e.g. Bitchener & Knoch, 2010a; Ellis, Sheen, Murakami & Takashima, 2008; Sheen, 2007). This perspective was developed from the schema of a writing-to-learn (e.g., Harklau, 2002; Manchón, 2009; Ortega, 2009; Santos, et al., 2010), and established within a psycholinguistic and cognitive SLA framework. These studies have utilised a similar methodological set-up to the studies that have been interested in oral CF. The investigators measured the effectiveness of CF by comparing students' accuracy performance over time – on pre-tests and post-tests, and by comparing the experimental groups with control groups.

Although some theoretical SLA grounds would forecast the effectiveness of written corrective feedback in promoting L2/FL development, and despite the evidence given by the oral empirical research on the efficacy of CF (e.g. Li, 2010; Mackey & Goo, 2007), the debate on the effectiveness of written corrective feedback has been inconclusive (e.g. Ferris, 1999; 2004; Truscott, 1996; 1999; 2007; Truscott & Hsu, 2008).

Thus, the aim of this chapter is to review a range of theoretical perspectives on the role and treatment of error in second language acquisition SLA as well as the empirical studies on the effectiveness of written corrective feedback in SLA process. The following sections will provide a comprehensive overview of related theoretical foundations of the use of CF in FL/L2 classrooms, and the empirical research exploring the efficacy of written CF on learners' target language accuracy.

## 2.2. Early Perspectives on Error and Written CF in SLA

During the 1950s and 1960s "errors, like sin, are to be avoided and its influence overcome" (Brooks, 1960, p: 58). Although the occurrence of errors during the learning process was considered as a negative sign, it was held that they should be prevented as errors were seen to interfere with the learning process. There has been an increasing research focus on the role of errors and their treatment in SLA domain (e.g. Lalande, 1982; Ferris, 2006; Chandler, 2003; Bitchener & Knoch, 2010; Ellis et al., 2008; Sheen et al., 2009). Preventing errors from occurring also led to a number of pedagogical initiatives. In the audio-lingual approach, for instance, learners are given opportunities to observe and practice the target language for an adequate period of time in order to help them to produce error-free statements (Brooks, 1960). Teachers were recommended to require their students to repeat several times to memorise the right models of dialogues, manipulate pattern drills, and study a large number of grammatical generalisations. This means that audio-lingual methodology prioritised avoiding errors through drilling. Somewhat surprisingly, Bitchener and Ferris (2012) noted that the "validity" and "feasibility" of this mechanistic method have never been trialled or tested by many teachers in relation to error prevention.

In the early 1960s, Contrastive Analysis (CA) was recommended as another way to enhance teachers' ability to deal with learners' errors. Structural linguists believed that the predominant source of errors was the interference of the mother tongue L1. CA was the method where two languages were compared in order to identify the differences between them, and to predict the errors which may be made by learners. In addition, CA requires provision of explanations about why learners make errors and about the teachers' role in treating them. Nevertheless, CA approach gained advantage in terms of predicting which errors learners were more likely to make; in the late 1960s and early 1970s it was criticised because it failed to predict the error types. A range of empirical studies (e.g. Hendrickson, 1977; Selinker, 1969; Wolfe, 1967) found evidence for this, and revealed

that interference errors are one of many other types of learners' errors during their learning process.

At the same time, theorists in the fields of linguistics and psychology began to seek alternative clarifications about the causes of learners' errors and how they should be corrected and treated. The field of linguistics started to focus on the rule-governed and creative nature of language rather than the surface structure of a large corpus of language.

Meanwhile, the field of psychology's focus was shifted towards the role of the environment in determining child's language and behaviour (e.g. Skinner, 1957) along with developmental views of learning (e.g. Piaget, 1970; Piaget & Inhelder, 1966). Each of these developments was reflected in Chomsky's (1959) beliefs about the acquisition mechanism of children's L1. He explained that although children cannot learn big chunks of sentences, they are able to create new sentences that they have never heard of before. He reasoned that children do that as they internalise rules rather than strings of words.

Chomsky's point of view underpinned L1 acquisition research of 1970s (e.g. Brown, 1973; Klima & Bellugi, 1966; Slobin,1970) further revealed that: Firstly, when acquiring their first language children go through stages which are similar across children for a given language and across languages, children's language is rule-governed and systematic. Secondly, children are resistant to error corrections. Thirdly, the processing capacity of children reduces the number of rules that can use at any one time. Finally, children revert to earlier hypothesis when two or more rules compete. Such results, together with the growing disillusionment with CA's ability to forecast difficulty areas, resulted in an interest in the language that L2 learners produce and, in specific, to an interest in the systematic exploration of second language learners' errors, recognised as Error Analysis.

The notion of Error Analysis (EA) was discovered among L2 theorists and this approach was used to understand errors by classifying and comparing them with the errors made by children when they learn their First Language (L1). Furthermore, EA contributed that the majority of L2 errors are not only a result from the first language of learners or the L2, and that they without doubt, thus, are learner-internal. Although the EA approach has its practical focus, this approach soon came under attack on theoretical grounds. On the one hand, it was being realised that the behaviourist belief of learning, as a response to external stimuli, was narrow in its focus and it was unsuccessful to interpret what happens in the minds of learners. On the other hand, it has been claimed that the learner' errors

nature (i.e., systematic and dynamic nature), showed also in first language acquisition studies, revealed that students actively apply their own rules about what is suitable in the target language and that their production develops over time. In 1972, "Interlanguage" was another term coined by Selinker on theoretical grounds to describe this focus on the language produced by learners. Learner's interlanguage came as a result of early L1 and L2 acquisition studies (e.g. Brown, 1973; de Villiers de Villiers, 1973; Dulay & Burt, 1973; Krashen, et al., 1974), this research found that children and L2 learners systematically develop linguistic domains in a set order. These findings led to "Errors" being seen by the interlanguage approach as transitional forms which would be replaced in time with more target-like forms, following the natural order of acquisition.

In the light of these findings, earlier theoretical perceptions about how an L2 is acquired and about the role of the error in that process were fast being undermined. The role of error in the L2 learning process was, therefore, seen less in terms of a sinful act that must be prevented from accuracy and more clearly as a sign of the intellectual processes that occur during the learning and acquisition of the target language. Therefore, enquiries such as the causes for errors, the errors to be corrected and when, how they should be corrected and who should do the correction, began to attract the attention of SLA research.

## 2.3. Corrective Feedback Definitions

Corrective Feedback in SLA writing has been recognised as a significant element in treating learners' errors regardless of the inconclusive research on the efficacy of CF. Feedback can be defined as a teacher response to learners' performance identifying their weaknesses and strengths by indicating or correcting their errors, supporting and checking their correct responses, and providing them with new knowledge about the target language. Different definitions have been given to this term, for example, Kepner (1991) defined corrective feedback as the means utilised to notify learners whether an instructional response is correct or incorrect. Lamberg (1980: 60) saw feedback as "information on performance which affects subsequent performance by influencing students' attention to particular matters so that those matters undergo a change in the subsequent performance." Keh (1990: 294) defined it as "input from reader to a writer with the effect of providing information to the writer for revision". Lalande (1982:141) states that "feedback is any procedure used to inform a learner where an instructional response is right or wrong". Barduell et al., (1981) defined it as a form of response to an event/ phenomenon, by which teachers provide learners with information about their

performance. Furthermore, Feedback or error correction has been included as evidence in focus-on-form approach for language learning input (Bitchener & Ferris, 2012). Accordingly, corrective Feedback is also defined as a spontaneous response to learners' problematic performance within meaning-focused interaction with specific regard to learners' attention to linguistic form.

Ellis (2005) claims that providing learners with feedback could foster their language learning as well as acquisition when providing the correct forms and / or strategies to correct their errors. Driscoll (2000) adds that feedback enables learners to be more familiar with their strengths and aware of the areas of development. Sommer (1982) argued that feedback involves learners to review their output with willingness to learn, and that this revision could develop their language learning and acquisition. Nicol & Macfarlane-Dick (2006: 206) descried feedback as "anything that might strengthen the students' capacity to self-regulate their own performance."

Different terms have been used to substitute the term feedback such as "comments", "response", or "correction" (Kepner, 1991: 141). According to Hattie and Timperley (2007), feedback is provided through different sources such as a teacher, a classmate, a parent, or a book. They advocated that corrective feedback is important in increasing learners' awareness of their strengths and weaknesses of the learning activities as it provides them with knowledge that bridges that gap between what students have learned and what they plan to learn. This can be achieved through "restructuring understanding, confirming to students that they are correct or incorrect, indicating that more information is available or needed, pointing to directions students could pursue, and /or indicating alternative strategies to understand particular information" (Hattie & Timperley, 2007: 82).

It seems that feedback plays a significant role in L2 learning processes because its fundamental aims are developing learners' linguistic competences as well as improving their language performance. Corrective feedback might provide learners with new rules, structures and vocabulary of the target language that increase their learning and acquisition. Its benefits are not only to increase learners' awareness of their weaknesses and provide them with knowledge and strategies to deal with these weaknesses, but also to identify their strengths and improve them. Feedback is also beneficial for teachers as it helps them to identify their learners' difficulties in their learning processes. Finally,

corrective feedback has been commonly thought as a crucial factor due to its significance in both encouraging and consolidating learning (Hyland and Hyland, 2006).

## 2.4. Corrective Feedback Types

There are many methods of feedback for improving students' writing. Mi-mi (2009) mentioned four different methods of feedback: Teacher Written Feedback, Peer Feedback, Self-monitoring, Teacher-learner Conference, and Computer-mediated Feedback. However, the focus of attention in this study will be given to teacher written corrective feedback.

### 2.4.1. Written Corrective Feedback

Corrective feedback could be provided in two main forms: direct corrective feedback and indirect corrective feedback. For the direct written corrective feedback type, teachers need to show the error location as well as suggest the correct form of the error. The indirect written corrective feedback is the type of correction that teachers use different tools such as codes, underlines and circles to indicate the error location without providing the correct form for that error (Bitchener and Ferris, 2012). The following sections present the definitions and examples of these different types of written corrective feedback.

#### 2.4.1.1. Direct Corrective Feedback

Bitchener and Ferris (2012: 148) have been referred to direct corrective feedback as a "correction that not only calls attention to the error but also provides a specific solution to the problem." Direct written corrective feedback has been defined as the type that gives students the clear and explicit corrections near or above the inaccurate, linguistic forms and structures (i.e., linguistic errors). It may also include the removing an unnecessary word, phrase or morpheme, the insertion of a missing word, phrase or morpheme, or providing students with the correct forms or structures. In other words, this type of correction comes in different forms such as *a)* cross-outs: when the teacher deletes any unnecessary word or phrase from learners' original texts, *b)* rewrites: when the teacher rewrites a word, phrase or a sentence, giving the correct spelling, structure or form on learners' original texts and *c)* additions: when the teachers add the missing items on students' original texts (e.g. prefix, suffix, article, preposition, word).

Direct corrective feedback aims to help students revise their writing and develop their performance in future texts (Bitchener and Ferris, 2012). Ferris (2002) argued that direct corrective feedback is useful in correcting errors of prepositions and other issues of

idiomatic lexis. She also claims that it is useful in the writing process especially in the final stages because it helps learners to pay an attention to the errors that remain in their texts and avoid committing them again in their future writing. Learners' linguistic proficiency level plays an important role to govern the quantity of direct corrective feedback they are given because advanced learners are more likely to benefit from it. In other words, although direct corrective feedback decreases the type of misunderstanding that learners may have if they are not able to understand indirect forms and offers them the information they need to correct more complex errors, it may not be helpful for learners who have incompletely acquired a specific form/ structure and really need more explanation. Figure 2-1 shows an example of a student's text that was corrected by direct corrective feedback:

*has* *at least.* *Lives*

**"Everyone ~~have~~ been a liar ^ once in their ~~life~~. People who lie intentionally to harm others**

*,* *told*

**are bad people ^ and their lies are harmful too. However, there are lies that are ~~done~~ with good intentions."**

**Figure 2-1 Sample student text excerpt with direct correction. Source: Ferris (2008: 102)**

In addition, direct corrective feedback has been also defined as the type of correction that provides the learners with an explanation of what has caused the errors (and normally comes in the form of grammar rules) and an example of the correct usage. This is usually done by giving a number to each error and at the bottom of the page of the text or at the end of the full text providing the metalinguistic explanation and examples alongside the relevant number given to the error category in the student's text. Metalinguistic information can also be given in the form of clue and usually an error code (e.g. art = article; prep = preposition) is used for this type of correction. Metalinguistic explanation can be beneficial for learners as it can provide a form of initial instruction for new knowledge and raise learners' consciousness about what has been partially acquired (Bitchener & Storch, 2016).

#### 2.4.1.2. Indirect Corrective Feedback

Indirect corrective feedback has been recognised as the type of correction which signposts the error location without providing any corrections. It may be provided in different forms such as underlining or circling an error (Bitchener & Storch, 2016). Indirect corrective

feedback is also referred to as "indicating an error through circling, underlining, highlighting, or otherwise making it at its location in a text, with or without a verbal rule reminder or an error code, and asking students to make corrections themselves" (Ferris, 2002: 63). Teachers ask learners to read carefully their errors and correct these errors (Ferris, 2002). In this case, the indirect corrective feedback lays emphasis on the role of learners who should understand the nature of their errors and attempt to correct the errors instead of relying on the corrections provided by their teachers.

The indirect corrective feedback method has been suggested as most useful approach because it invites learners to "engage in guided learning and problem-solving" (Lalande, 1982). In other words, it is the learner's responsibility to do the work. The following example shows a student's text which was provided by indirect corrective feedback:

**"Everyone have been a liar once in their life. People who lie intentionally to harm others are bad people and their lies are harmful too. However, there are lies that are done with good intentions."**

**Figure 2-2 Sample student text excerpt with indirect (un-coded) correction. Source: Ferris (2008: 103)**

Indirect error correction has been also defined as an implicit correction that provides learners with codes of what has caused the errors. Symbols are used for codes (e.g., '^' for a missing item) and abbreviations (e.g., PL/ Sing for Plural/ Singular errors) and some punctuations (e.g., '?' for asking more clarification) through which learners will be aware of the locations and the types of errors on their original texts (Hendrickson, 1984). Hyland (1990) claims that the use of codes as a form of error correction can be beneficial because it assists teachers provide effective implicit feedback while preserving the positive effects of error correction. Harmer (2005) argued that using codes as a form of error correction could reduce the negative psychological consequence of red ink on learners' texts. Here is an example of student's writing that has been corrected by means of codes:

***WT (wrong tense)*** ***SP (spelling error)***

**"Everyone have been a liar once in their life. People who lie intentionally to harm others are bad**

***P (punctuation error)*** ***WC (wrong word choice)***

**people ^ and their lies are harmful too. However, there are lies that are done with good intentions."**

**Figure 2-3 Sample student text excerpt with coded correction. Source: Ferris (2008)**

Written corrective feedback research has addressed the amount of explicitness that would accompany indirect feedback (e.g., Ferris, 2006; Robb et al., 1986; Bitchener and Ferris, 2012; Lalande, 1982). Ferris' (1997; 2002) studies found that learners most appreciated the use of codes. Furthermore, Corpuz (2011) claims that feedback provision should be implicit through the use of error correction codes as this type of correction provide learners with the opportunity to look up their errors.

### 2.4.2. Reformulation

This technique is used to help learners write 'a more native like composition', with the focus on rhetorical but not on grammatical factors (Levenston, 1978). Reformulation is when a native writer attempts to rewrite a non-native writer's composition by providing the essential changes in syntax, lexis, cohesion and discourse, while maintaining the original writer's ideas (Allwright et al., 1988). Cohen (1989) similarly explained that reformulation involves writers to rewrite a text in their own words, making it sound more native-like and keeping the ideas of the original writer.

Allwright et al. (1988) clarify that reformulation can be employed by writing a usual writing task. The basic propositional content is provided in an unorganised form, then learners are asked and encouraged to discuss the best way of rearranging the ideas. Learners produce the first draft, which is collected by their teacher and reformulated. Learners receive two copies of the original and reformulated texts and they are asked to identify the similarities and differences and understand the reasons for making the changes. The discussion stage is essential as it constitutes the core of reformulation. Then students are asked to write the second draft considering the points being discussed. The second drafts collected and the teacher comments on them without providing corrections. Allwright et al. (1988) seek help from a native teacher to reformulate learners' written texts. Others (e.g., Myers, 1997) rely on teachers who have high proficiency level in L2/ FL.

Hedge (2000) argued that reformulation can be beneficial for learners who have to write a draft and are looking for developmental possibilities. Learners will be able to make comparisons to compare their draft with the target model and notice the differences. This strategy also provides learners with an extensive range of opportunities to discuss the development of ideas, the structure use, vocabulary and conjunctions. The following figure provides an example of reformulation technique:

| Original Text | Reformulated Version |
|---|---|
| It was a beautiful spring day and the boys and girls still be in the camping. The sun was shining and the sky was blue. The teacher, Susan, wake the student up and they started the day. | It was a beautiful spring day. The sun was shining, and the sky was blue. The children had spent an exciting night and they were enjoying the camp.<br><br>Their teacher, Susan, had woken the children up and they started with the activities. |

**Figure 2-4 Sample Student's Original Text Excerpt with Reformulated Version. Source: Luchini & Roldan (2007: 236)**

### 2.4.3. Written Commentary

Written commentary has been recognised as a type of written corrective feedback which provides learners with input that enables them to recognise whether their aims have been achieved or not. In the case of not achieving their intentions, written commentary may help through some of the teacher's suggestions provided in the revision of their written texts (Goldstein, 2004). This type of feedback provision is a technique of interaction between learners and teachers (Goldstein, 2005). This type of communication with knowledgeable people (teachers) helps learners to develop their writing skills (Long, 2006). Written commentary is defined as "a social act involving the author and readers" (Goldstein, 2005: 5). It is possibly to enable communication between teachers and learners concerning their writing, and it could motivate and encourage learners to develop and improve their skills (Keh, 1990; Ferris et al, 1997; Goldstein, 2005).

Written commentary can come in different form such as syntactic forms which include one-word, declarative sentences, questions, exclamations or imperative sentences (Ferris et al., 1997). Such forms may affect learners' understanding of their teacher comments (Ferris, 2003a). She adds "brief, cryptic questions or imperatives … may simply provide too little information to student writers" (Ferris, 2003a: 26).

Written commentary can be specific comments that are provided only on a particular written sentence or structure (e.g., what you mean in this sentence?), or general comments that are given on the whole text or essay (e.g., good conclusion) (Ferris et al., 1997; Ferris & Hedgcock, 2005). The later form is more common than specific written commentary (Sommer, 1982; Zamel, 1985). However, some researchers (e.g., Fathman &Whalley, 1990; Chiang, 2004; Ferris & Hedgcock, 2005) argued that specific comments can be

more powerful because they specify learners' strengths and weaknesses in writing. Written commentary may also reflect teachers' involvement with learners' writing and by incorporating such comments in learners' subsequent drafts teachers may motivate learners to revise their writing (Zamel, 1985; Goldstein, 2004).

Furthermore, written commentary can be positive (i.e. praise), which is "an act which attributes credit to another for some characteristic, attribute, skill, etc., which is positively valued by the person receiving the feedback. It therefore, suggests a more intense or detailed response than simple agreement" (Hyland & Hyland, 2001: 186). On the other hand, constructive criticism provides "a negative evaluation of the paper or a portion of the paper without improvement suggestions" (Cho et al., 2006: 276). Chiang (2004) and Ferris & Hedgcock (2005) suggest that positive and negative written commentaries are essential for learners' development in their writing. However, teachers should provide written commentary with carefulness because they might demotivate and confuse learners.

### 2.4.4. Computer-Mediated Corrective Feedback

Corrective feedback can be provided by using special software that reads learners written texts (Ware & Warschauer, 2006). This software provides feedback on grammar as well as on language usage. Learners can receive corrective feedback on their writing electronically when communicating with their teacher via computer (e.g., email), this is called asynchronous feedback (Hyland & Hyland, 2006a). Computer generated feedback programmes are "web based and offer a core set of support features, including a writing manual, model essays, and translators" (Ware, 2011: 770). These programmes can be used after learners submitting their written texts to "receive several different types of feedback, including holistic and analytic scores, graphic displays of feedback such as bar charts tabulating problematic areas, generic feedback on revising strategies, and individually tailored suggestions for improving particular aspects of their writing" (Ware, 2011: 770).

Hyland and Hyland (2006a) argued that using technology in classrooms of writing can make them more active and collaborative. In other words, learners become more dynamic and autonomous because they can ask questions and discuss some issues, they raise with their teachers by using technology. Moreover, automated feedback is "legible, it is clear and less cryptic, and it is permanent and can be saved for future reference or analysis" (Ferris, 2014: 21). Similarly, researchers (e.g., Chen, 1997; Yao & Warden, 1996) argued

that computer or automated feedback may save teachers' time and help them to give more attention to other aspects of their learners' writing.

It has been recommended that electronic feedback would be used as an additional means in writing classes and not substitute them with the actual interactive feedback provided by teachers (Burstein et al., 2003; Burstein and Marcu, 2003). Pennington (1993) argued that the interaction through technology would only succeed if teachers carefully choose the suitable requirements of an activity such as the context of use as well as the type of software. Belcher (1999) argued that automated feedback might negatively influence learners who are not sufficiently able to access computer facilities.

## 2.5. Source(s) of Corrective Feedback

While it was acknowledged that the "who" of written corrective feedback is obvious the teacher, this is not always the case. Rather, learners have a range of options for receiving corrective feedback. For instance, the instructor, classmates, a tutor or outside "peer expert", and self-evaluation.

Teacher or instructor's corrective feedback has been considered as the primary, if not the only, source of written corrective feedback for learners. The learners themselves certainly expect their teachers to have the level and depth of knowledge required to give them appropriate feedback. Indeed, in most settings, when the teachers have decided that written corrective feedback is valuable and necessary for some of the learners, instructors should be involved in providing some of the corrective feedback. Ellis (2010) suggested that the teachers need considerable skills in order to provide efficient feedback. The teacher should start off the writing course with some kind of diagnostic analysis of students' needs and should convey to, and model for students which issues they should work on and how feedback might best be provided. Ferris & Hedgcock (2005) suggested that teachers might also consider adding oral communication "in-person error conferences" to feedback repertoire. They explained that in some instances, probably an in-person error consultation is most appropriate such as the teachers may not know exactly what the problem is and /or what the learners are trying to convey; or short and brief written corrections may not suffice to help learners either to self-edit the current text nor learn to avoid such errors in their future writing (Bitchener & Ferris, 2012). Therefore, error discussions can be helpful to explain any confusion that learners might have with written feedback.

While some researchers can acknowledge the benefits of peer review especially for issues of organisation and content, other observers have some concerns about classmate feedback regarding the editing/ form-focused stage of the writing process (Bitchener & Ferris, 2012). For instance, an L2 student writer may not have the sufficient formal knowledge or the required perceptions to notice classmates' errors and provide accurate and clear feedback about them. However, some researchers argued that careful designed classroom activities can have some distinct purposes and benefits. For example, applying careful reading and proofreading skills to someone else's text can help learners improve their critical thinking and reading strategies. Ferris (1995: 19) noted that "it seems to be true that it is easier to find errors in others' work than in one's own." Secondly, classmate review activities can be used to help learners apply and practice specific self-strategies such as how to look carefully at their texts to find a particular error form. Furthermore, peer-editing activities can be suitable for revising in-class grammar teaching. Learners can be instructed to look at a classmate's text for any problems or correct use of some grammar categories such as verb tense, making subject verb agreement, and so on. In short, it seems that peer review activities may provide learners with practice that helps student build confidence in self-editing skills.

In large number classrooms, teachers may seek and refer their learners elsewhere for additional outside help. For instance, many universities and colleges have campus writing centres staffed by trained tutors where learners can go for additional individual help. This strategy, however, involves teachers to take primary responsibility for ensuring that their learners receive appropriate outside assistance. The instructors have to familiarise themselves with the resources available. They should also prepare their learners to work effectively with a tutor and maintain communication with their learners' tutors (i.e. providing copies of assignments, feedback rubrics, and error code keys) so that the tutor can be aware of the classroom context. The teachers can also evaluate with the student how effective the outside help has been, so that the teacher can provide any follow-up needed. Bitchener and Ferris (2012) suggested that additional assistance received outside the class should complement but not replace the teacher's input in evaluating and addressing individual learners' needs with regard to written corrective feedback.

Student writers themselves can evaluate and edit their own work. L2/ FL learners can benefit from receiving opportunities to self-edit their texts as they may lack confidence in their language abilities and can become more dependent on others to correct their work. Feedback itself can be a tool that can help learners when editing their texts because

feedback builds learners' skills and awareness for subsequent writing tasks (Bitchener & Ferris, 2012). In addition, focused instruction on particular points of grammar, usage and language may increase learners' knowledge that they may need to access when edit their work. This can include awareness of additional sources such as handbooks, websites, and other course materials which learners could consult for more information about particular language points. Teachers can also provide self-editing opportunities through their writing course and assignments. For instance, when learners are required to write through a multi-draft process during which they write, receive feedback, revise, and edit their work, they will have opportunities to self-edit before finalising their work.

## 2.6. Purpose of Written Corrective Feedback

To understand the purpose and the goals of providing corrective feedback in a language learning context, it is necessary to consider the purpose and goals of learning a second language or foreign language. It is also important to consider where written corrective feedback fits into the language learning process. Understanding its place in the learning process is an essential condition to understand its purposes and goals.

There are probably some different reasons for L2 and foreign language learners to do this. Regardless of these reasons, learners expect to be taught the essential linguistics features of the target language and, to some extent, pragmatic and idiosyncratic uses of the language for different purposes and occasions/contexts. As discussed in the previous section, the teacher's responsibility is to determine the learning general goals as well as specific ones. General goals are knowledge of the forms and structures of the target language. Whereas, learners' specific goals are likely to vary with more focus on communicative competence and or achieving a more declarative knowledge about the language rather than a procedural knowledge (see 2.8.1).

Despite the controversy argument on the effectiveness of written corrective feedback, there is a great amount of research that has proved its effectiveness for the development of learners' written accuracy (e.g., Ferris, 1997, 2002; Ferris et al., 2011; Van Beuningen, 2010; Hyland and Hyland, 2001).The research findings revealed that written corrective feedback could help learners improve awareness, knowledge, and strategic competence and encourage them to assess their writing, notice possible aspects of weaknesses, and be aware of their performance level. For instance, Bitchener and Ferris (2012: 125) stated that "feedback is an important part of the learning process and the written CF is provided as a response to errors that learners made in their written output." They added that written

CF is acknowledged to be effective as it can be provided at a time when learners are able to notice it, understand it, and internalise it. Bartram and Walton (1991) noted that not providing learners with corrective feedback may lead to some problems: learners could be less or, and demotivated and even more anxious. The second concern could be that teachers might feel guilty and anxious that they will be thought of as being unqualified, lacking responsibility when they do not respond to their learners' errors.

However, some teachers may face a kind of confusion regarding the purpose of feedback provision because the difference between feedback that offers advice (formative) and feedback that provides evaluation (summative) are uncertain (Black & Wiliam, 1998; Burke & Pieterick, 2010). Wiggins (1997) claimed that the reason for providing the evaluative feedback is to confirm that the learners clearly understand what the marks/ corrections are for in their tasks or assignments. On the other hand, the advisory feedback purpose is threefold; to offer students information about their performance in the task, to highlight the areas of weaknesses need some support and development, to help the learners' improvement by letting them know what should do to continue and to develop their future writing.

Understanding the role of written corrective feedback in the language learning process can be a prerequisite to understanding the pedagogical considerations. For instance, if the purpose of providing written corrective feedback is to help learners understand and use the target language with accuracy, then the types of error that are most likely to be treated effectively with written corrective feedback are, those whose form and structure lie within learners' "readiness zone" (see 2.8.2). Similarly, teachers' decisions about the way in which corrective feedback should be provided might be determine by learners' linguistic proficiency level. Learners with a more advanced level may benefit from comprehensive feedback which targets a range of linguistic errors, whereas, lower proficiency learners may only be able to focus their attention on one targeted category at a time. Thus, being aware of such facts should help teachers to identify their goals of using corrective feedback in their writing classrooms.

## 2.7. Theoretical Foundations of the Use of CF in SL/FL Teaching

The effectiveness of corrective feedback as a useful tool to language learning is based on different theoretical grounds. The following sections present some these theoretical grounds of the use of the corrective feedback in SL/FL classrooms.

### 2.7.1. First Language and Second Language: Different Process and different Methods

Since the early 1970s, the teaching methodologies of L2/FL have been changing towards initiating the communicative paradigm as a transformation from traditional, structural methods of L2 pedagogy, that predominantly considering teaching isolated linguistic features and grammatical rules. Reflecting on communicative competence theories (e.g., Canale & Swain, 1980; Hymes, 1971), communicative methodologies and approaches focus on developing learners' abilities to use the L2/FL meaningfully in real life situations and communications. Communicative approach requires a great comprehensible input to be provided to learners (e.g. Krashen, 1981; 1982; 1985) and constructing circumstances where learners have chances to involve in meaningful use of language. Thus, communicative approaches foster the natural process of acquisition as implicit and incidental learning by creating an environment where learners practice the realistic and meaningful use of language (e.g. Krashen & Terrell, 1983; Long, 1985; Skehan, 1998).

The concept that L1and L2 are similarly acquired led some researchers to encourage adoption of using an entirely naturalistic approach in teaching L2/FL (e.g. Krashen & Terrell, 1983). Having access to abundant comprehensible input was considered to be the necessary and sufficient condition for SLA. Through the communicative environment, learners were likely to be able to understand the input by deducing its meaning based on the implicit linguistic information present in the communicative context. In these contexts, L2 students' grammatical competence would be automatically utilised (e.g., Krashen, 1981; 1982; 1985; Schwartz, 1993).

Recently, the agreement within SLA field, however, is that there are some similarities but also many differences regarding acquiring L1 and L2. Furthermore, L1 and L2/FL acquisition involve cognitive processes, which seem to be not completely interrelated (Doughty, 2003). This hypothesis was supported by L2 acquisition studies that took place in naturalistic context. The findings revealed that although learners were immersed in context where they had the opportunities to continuously expose and practice the language, they were unable to acquire native-like grammatical competence. While L2/FL learners were able to develop native-like fluency, they were unsuccessful in reaching the native-like accuracy (e.g. Swain, 1991; Lyster, 2007). Based on these findings, it appears that, from an SLA point of view providing learners with ample comprehensible input, will not be sufficient condition for developing target-like accuracy. In other words, large

amount of comprehensible input may lead to apparently native-like comprehension but not native like production. It has been explained that acquiring language and comprehending it are not similar processes and that "comprehension may occur in the absence of acquiring linguistic knowledge" (Révész, 2007: 5). Learners are likely to understand the meaning of a message relying on the surrounding context and/or already acquired linguistic knowledge. To do this, learners might completely avoid processing the morphosyntactic encoding of the message.

Learners cannot guarantee to be pushed beyond strategic and semantic processing, either by only providing them with abundant opportunity in order to produce the target language (Révész, 2007). It is not necessary for L2/FL learners to be fully engaged in morphosyntactic process when producing output. They are able to form a communicatively acceptable message despite lacking linguistic accuracy. According to Skehan & Foster (2001), language can be communicated regardless to insufficient performance "language can work despite poor execution, its meaning is recoverable even if its form is incorrect" (p. 183). The language meaning is conveyable even though its form is inadequate. Furthermore, learners might tend to adopt non-native like linguistic strategy to avoid communicative obstacles when they totally lack L2/FL accuracy. Consequently, learners might prematurely fossilise their errors (e.g., Skehan & Foster, 2001).

It seems that a fully meaning-based approach to L2/FL teaching would not be sufficient when L2/FL instruction foremost aim is targeting a native-like proficiency. Alternatively, linguistic form cannot be neglected as learners need it to be accurate in their L2/FL (e.g. Ellis, 2005; Long, 2000; Robinson, 1998; Norris & Ortega, 2000; Skehan & Foster, 2001). Therefore, recent communicative approaches to language learning and acquisition undeniably all include some form of grammar teaching (e.g. task-based approaches, content-based approaches). One of the methodologies has adopted in these teaching approaches to focus on learners' linguistic form accuracy is corrective feedback, which plays different roles that presented in the following sections.

### 2.7.2. Corrective Feedback as Focus-on-Form Mediator

It is noticeable that in the current L2/FL pedagogy, linguistic form should receive considerable attention by which learners' accuracy development is likely to be fast, easy and successful (Doughty, 2003). Long's reformulation of the Interaction Hypothesis (1996) that placed a greater focus on connecting aspects of input and linguistic

environment with learner-internal issues, all may contribute towards language development and support language acquisition (Long, 1991; 1996; 2000; Long & Robinson, 1998). According to long (2000) focus-on-form:

> *"involves briefly drawing students' attention to linguistic elements […] in context as they arise incidentally in lessons whose overriding focus is on meaning or communication. The temporary shifts in focal attention are triggered by students' problems with comprehension or production (p. 185)."*

The significance of providing form orientation within a meaningful or communicative context is to 'transfer appropriate language learning' (Lyster, 2007). The core of this notion was rephrased by noting that "… the kind of cognitive processing that occurs while performing [language] learning tasks should ideally resemble the kind of processing involved during communicative language use" (Lyster, 2007: 43). The disadvantage of decontextualized grammatical instruction is that students will be unable to transfer the knowledge they have attained from isolated grammar lessons to real language use in communicative and meaningful contexts. On the other hand, the focus-on-form method considers learning that is transfer appropriate.

However, Long's definition suggests that focus-on-form episodes can be unintended (i.e. unplanned). Whereas, others have assumed a wider viewpoint on what can form a focus-on form episode as they consider it that it can be both deliberate and accidental, and responsive as well as preventive (e.g., Doughty &Williams, 1998; Ellis, Basturkmen, & Loewen, 2002).

Error correction has been considered as one of the pedagogical instruments that recognised as a potential focus-on-form tool (e.g., Ellis, 2005). Corrective feedback can be a responsive focus-on-form method with the particular value of involving learners' attention to form in the preforming task context, in a personalised, individualised manner. Therefore, it could be argued that corrective feedback on written output is likely to be considered as a focus-on-form mediation. While, the communication flow will be inevitably interrupted by oral feedback, students are simply obligated to deal with written feedback after communicating the meaning (Polio, Fleck, & Leder, 1998).

### 2.7.3. Corrective Feedback as Noticing Facilitator

According to Long (1996):

> *"[…] **feedback** obtained during negotiation work or elsewhere may be facilitative of L2 development, at least for vocabulary, morphology and language-specific syntax, and essential for learning certain specified L1-L2 contrasts" (Long, 1996: p. 414)*

The other crucial reason of the focus-on-form method can be seen in Schmidt's Noticing Hypothesis (Schmidt, 1990; 2001). The noticing notion includes the two-essential cognitive linguistic concepts of attention and awareness (Svalberg, 2007). According to the Noticing Hypothesis, subconscious second language acquisition is not possible, and that it happens simply by conscious attention that input can be transformed into intake. Schmidt accordingly claimed that noticing is an essential condition for language learning.

Schmidt (1994) argued that attention has to be divided into different types: noticing, understanding, and awareness. While understanding and awareness mean knowledge and awareness of a rule, noticing means "the process of bringing some stimulus into focal attention (i.e., registering its simple occurrence)" (Bitchener & Ferris, 2012: p.17).

Therefore, Schmidt and others (e.g., Sharwood Smith, 1993) explained that "consciousness-raising" and input development (through mixtures of heightened saliency for target L2 items, metalinguistic commentary, and corrective feedback) may play essential roles in facilitating the process of language learning especially for some forms and structures. One of significant roles associated with attention is that it enables learners to be conscious of a gap between ability to produce and necessity to produce, as well as between their production and native speakers' production (Schmidt, 2001). The notion of Noticing the gap has been recognised by Schmidt and Frota (1986). In SLA field this concept has been referred to as cognitive comparison as learners need to notice whether their output is similar to their input (Ellis, 1995).

Based on the previously mentioned hypothesis, if conscious attention to linguistic form is recognised facilitative to or even necessary for interlanguage development, focus-on-form methodology such as CF is likely to facilitate SLA process (e.g. Dekeyser, 1994; Han, 2002). Hulstijn and Schmidt (1994) noted that CF can be devices of cognitive focusing for student's attention. CF provision can help students to notice the gaps between their interlanguage output and the target language input. Learners' interlanguage

grammar would be improved and developed as a result of the noticing practices that urge destabilisation (Gass, 1997; Long, 1996).

Some researchers (e.g. Adams, 2003) focused on the benefits brought by written feedback and distinguished them from those gained by oral feedback. Both methodologies enable students to notice the gap between their interlanguage and the language being learned, however, learners sometimes are unable to make cognitive comparison at the time of oral language use. According to Schmidt (2001) the typical psychological conception of attentional resources is that they are limited. Presenting attentional resources with a great number of stimuli at the same time can lead the human brain to be unable to process them all because of competence limitation (Al-Hejin, 2004). Consequently, a cognitive overload could occur as a result of stressing on learners' attentional sources, real-time language production and verbally delivered CF. By contrast, in writing contexts, there will be sufficient time for the learners to make a comparison between their output and the CF they are provided with, this is likely to increase learners' noticing gap in their interlanguage (e.g. Polio et al., 1998; Sheen, 2010a)

It has been argued that useful impacts of the written output and CF, will outweigh those associated with oral communications and correction. In written context, learners will have sufficient time and will not be under such strict time constrains as in online communication.

### 2.7.4. Learner Production and Corrective Feedback

Whereas learners' output was in the past considered as nothing more than a product of already acquired L2 competence (Krashen, 1989), most contemporary SLA researchers following Swain's (1985; 1995) Output Hypothesis, regard learners' output as a significant source for acquisition (e.g. Ellis, 2003; 2005; Manchón, 2010; Skehan, 1998). Swain claimed that learners' output production is important because it energises learners to intensely process language with more intellectual effort than it required for listening and reading. Swain's (1985; 1995) Output Hypothesis classified three different functions of learners' output. Firstly, output production enables learners to test hypotheses about the language grammar. Secondly, it might generate meta-linguistic reflection that is useful for the development of interlanguage. Finally, output production can help learners to promote noticing gap and trigger their awareness of the mismatching and problems in their interlanguage system.

However, Swain (1991) acknowledged the importance of corrective feedback and explained that learners' output by itself does not necessarily function these roles by stating that "if students are given insufficient feedback or no feedback regarding the extent to which their messages have successfully (accurately, appropriately, and coherently) been conveyed, output may not serve these roles" (p.98). Similarly, other researchers claimed that language learning process benefits more when feedback is accompanied by output production. For instance, Han (2002) claimed that "[W]hile the focus is on meaning, there is a limit to know how much an L2 learner can introspect the sufficiency of his own linguistic resources. Also, even if the learner consciously recognizes at that point what he lacks, there is no guarantee, for various reasons, that he will subsequently be able to tune himself in for a solution in the future input, or even if he is, he may not be able to tell whether what he sees as the potential solution is actually the correct solution. Rather external feedback […], I shall argue, may significantly facilitate the fulfilment of the 'noticing' function" (p.18). It seems that the useful functions of the produced output in combination with corrective feedback are actually realised.

## 2.8. Doubts against the Use of Corrective Feedback in FL/L2 Teaching

In the previous section, the reasons for considering corrective feedback as a facilitator in SLA were discussed. However, some researchers have argued that correction can be completely unwarranted and useless, or even harmful (e.g., Krashen, 1985; Schwartz, 1993; Truscott, 1996). This argument based on both practical and theoretical grounds. The practical doubts concern to teachers' capabilities in providing sufficient and constant feedback, and students' ability and readiness to utilise the feedback efficiently (Truscott, 1996). The theoretical concern in contradiction of error correction relies on the claim that corrective feedback fails to notice important insights from SLA theory.

### 2.8.1. Procedural and Declarative L2/ FL Knowledge

The conscious knowledge of grammar has a role played in being a capable operator of the L2/ FL has been an often-addressed subject in the SLA field. Conscious knowledge about L2/FL grammatical system has been commonly indicated to as declarative or explicit knowledge, and opposite to procedural or implicit Knowledge (e.g., Bialystok, 1994; Dekeyser, 1998; Krashen, 1981). Declarative or explicit knowledge means a conscious awareness of grammatical rules and the appropriate meta-language for identifying and expressing this knowledge (Ellis, 2004). On the other hand, procedural or

implicit knowledge is claimed to be unconscious knowledge that can be accessed to rabidly and easily when using the language online.

Recently, the assumption holds for oral L2 use is that learners' procedural or implicit knowledge that facilitates them to communicate spontaneously and fluently. However, Bitchener and Knoch (2010a: 4) noted "the extent to which learners draw upon explicit and implicit knowledge during writing process is not known. It is likely, however, that they draw upon both explicit and implicit linguistic knowledge." Furthermore, the way that the kind of explicit knowledge occurs as a result from grammar teaching adds to the SLA process "has been and remains today one of the most controversial issues in language pedagogy" (Ellis, 2005: 214). Debate concerns both the usefulness of explicit knowledge in itself and the relationship between explicit and implicit knowledge. The disagreement is significant when investigating the value of error correcting as corrective feedback opponents (e.g., Krashen, 1982; Truscott, 1996) have stated that, if corrective feedback produces any L2 knowledge, this emerging knowledge might only have an explicit nature.

Contestants to the use of corrective feedback in L2/FL classrooms, such as Krashen (1982), argued that the benefits of declarative knowledge as such to actual L2 performance are relatively limited. In his Monitor Hypothesis, Krashen believed that explicit L2 knowledge can only be used during monitoring (i.e., editing what has produced by the acquired system), and this will be able to use when there is sufficient time (e.g., during written performance but not necessarily during oral performance).

Regardless of the value of the explicit knowledge as such, it is likely to be the case that explicit knowledge assists the implicit knowledge development. Nevertheless, those against the efficacy of corrective feedback stick to the view that explicit and implicit knowledge are completely different and there is no connect between them. This notion is supported entirely by Krashen's (1981; 1982; 1985) proposed difference between learning and acquisition. Based on Krashen's view, the implicit knowledge acquisition occurs unconsciously, whereas learning can only result in explicit knowledge gains and involves conscious effort. In his view of Acquisition-learning Hypothesis, Krashen stated that linguistic knowledge occurs in two primarily distinctive ways, resulting in two distinct knowledge bases, and that these different routes cannot become joined into a unified whole. This means that explicit knowledge could never become implicit

knowledge. He saw that no value for acquisition in the learning that results from instruction and corrective feedback.

Based on this viewpoint (e.g., Krashen, 1985; Schwartz, 1993), the reason behind the claim that corrective feedback cannot be a facilitator tool in the SLA process can be as follows: actual language use is entirely driven by implicit knowledge, whereas corrective feedback can only result in explicit knowledge. The notion that explicit knowledge will never convert into implicit, then serves the conclusion that learners' interlanguage system is not influenced by corrective feedback and that corrective feedback could only result in "a superficial and possibly transient form of knowledge" (Truscott, 1996: 345).

Many SLA researchers, however, have alternative perspectives and seem to agree that the bases of implicit and explicit knowledge are connected by an interface (e.g., Dekeyser, 1998; Hulstijn, 1995; Hulsijn &Schmidt, 1994; McLaughlin, 1990; Schmidt, 1990; Schmidt & Frota, 1986; Swain, 1985). Regarding the Skill Acquisition Theory (e.g., Anderson, 1982), it has been proposed that the output practice plays an active role in bridging the gap between explicit knowledge and language use (Dekeyser, 2003). L2 learners could be able to consolidate and automatize their linguistic capacity by practicing language production (Manchón, 2010). Corrective feedback is considered to further aid this proceduralisation of declarative L2 knowledge (Ellis, 2010).

Other researchers stick to an in-between position (e.g., Doughty & Williams, 1998; Ellis, 1997; Long & Robinson, 1998) and argued that although implicit and explicit knowledge are separate, explicitness of knowledge might feed into the intake process through facilitating learners notice the formal aspects of the input. Based on this perception, corrective feedback is likely to promote interlanguage development as it enables noticing the gap process.

### 2.8.2. Learners' Readiness Stage

The other doubt noted by Truscott (1996) in his case against grammar correction, is the one that associated to research into naturalistic SLA and the Natural Order Hypothesis (Krashen, 1981; 1982, 1985). Early research examined the acquisition in a realistic L2 environment, revealed that learners acquire grammatical rules of language in a predictable order (e.g., Bailey, Madden, & Krashen, 1974; Dulay & Burt, 1974; Pica, 1983). These findings suggested that students' ability to effectively use the linguistic forms depend on the mechanisms of their own inner learning, but not on what being taught in language classrooms (Corder, 1967).

This point was supported by Pienemann's (1989) Model (i.e., Teachability Hypothesis). He explained that teaching grammar can only be effective if it is provided when the learners are at the stage in their interlanguage that is close to the point when it could be acquired naturally. He adds that an L2 learner cannot progress if one stage is missing and that teaching can be constrained by the stage a learner is at because "the acquisition process cannot be steered or modelled just according to the requirements of formal instruction" Pienemann, 1989: 57). With regard to corrective feedback, Truscott (1996) deduced that corrective feedback to have any effect, instructors should associate the corrections they provide to their learners' level of L2/ FL progress. In the absence of this condition, he saw that learners will apply the grammatical rules that they are not yet ready to acquire, and consequently, intake will not take place. This aspect led Truscott to conclude that error correction cannot have a facilitative role in the SLA process.

### 2.8.3. Possible Negative Side-Effects of Corrective Feedback

Opponents to the use of corrective feedback have not only stated that corrective feedback cannot lead to accuracy development, but some even argued that error correction can be negative to the SLA process. The first reason for claiming that providing learners with corrective feedback could be considered counterproductive, is that Truscott (1996; 2004), on one hand, argued that both teachers and learners devote time and energy on dealing with correction, which should be spent efficiently to alternative activities. On the other hand, he questioned some teachers' ability to provide consistent and accurate feedback, and some learners' ability to understand what is meant by correction.

The second reason is that, both Krashen (e.g., 1982) and Truscott (e.g., 1996) suggested that when making learners aware of their errors by providing corrective feedback, they will become stressed and anxious of committing the same errors in their future writing. As a result, this anxiety may lead learners to avoid using more complex structures in a new text and write in a simplified way. This suggestion that the attention given to the language form induced by corrective feedback might make students reduce the linguistic complexity in their output, is in line with Skehan's (1998) predictions that inadequate capacity models of attention also assume a trade-off between accuracy and complexity. By these models, L2 learners' performance could be more complicated when students are interested in experiment with the target language. By contrast, the focus on accuracy "is seen to reflect a greater degree of conservatism" in which students will attempt "to achieve greater control over more stable [interlanguage] elements" when avoiding

increasing their L2 capacity (Skehan & Foster, 2001: 191). However, considering other perception on attention (e.g., Robinson, 2003; 2005), linguistic accuracy and complexity have not been considered to be in competition as these two form-related features of student output are believed to be closely associated to each other.

## 2.9. Debates about Corrective Feedback Use in L2/ FL Teaching

The previous sections discussed the arguments both in favour and against corrective feedback use in L2/FL teaching. Even amongst corrective feedback supporters, however, some issues associated to error correction value remain conflict-ridden. This section reviews two of the most greatly debated concerns: the differential effectiveness of various corrective feedback methodologies; and the amenability of different error categories to corrective feedback.

### 2.9.1. Which Corrective Feedback Methodology to Use

As made clear in the previous section, corrective feedback on L2/FL learners can be provided in a number of different forms. It was clarified how methods of written corrective feedback might differ, for instance, with regards to their explicitness, their focus, the person who is providing them, and the feedback medium. The two conflicts which have been giving an abundant amount of researchers' consideration are that between focused and unfocused corrective feedback. The following section is a presentation of the different views that have been highlighted in the literature regarding the relative efficacy of these different types of corrective feedback.

#### 2.9.1.1. Focused and Unfocused Corrective Feedback

As was already clarified, the focused-unfocused contrast indicates the amount of comprehensiveness of written corrective feedback methodologies. While unfocused or comprehensive approach includes correction of all errors in learners' texts, regardless of their error categories, focused or selective correction targets a number of particular linguistic feature(s) only (e.g., errors in the use of English past tense). Errors outside the focus domain are left without correction.

Researchers have different hypotheses with regard to the value of focused and unfocused corrective feedback. For instance, Ellis et al., (2008) argued that based on theoretical reasons, the focused approach is expected to be more valuable to accuracy development than unfocused corrective feedback. They added students are more likely to notice and comprehend feedback when it targets a specific error type(s). Based on the notion that

noticing and understanding are crucial for L2 acquisition (e.g., Schmidt, 1994; Ellis, 2005), led Ellis et al. (2008) to determine that focused corrective feedback is likely to have a higher potential effect on learners' accuracy development. Furthermore, Sheen (2007) and Bitchener (2008) claimed that comprehensive corrective feedback might not be the most effective correction approach since L2 learners have an insufficient processing competence. They noted that if learners are asked to deal with corrective feedback that targets a great range of linguistic features at the same time, this could lead to a "cognitive overload", and hinder feedback processing. However, this noticing capability concern might be more obvious in the online processing of oral feedback than in the offline dealing of written corrective feedback (Sheen, 2010a).

Bruton (2009a) argued that focused corrective approach can be rather a form of explicit grammar instruction than a focus-on-form intervention. Consequently, learners may find it demanding to transfer what they have learned from the feedback to their new writing (Segalowitz, 1997; 2000). From a practical perception, only pointing to specific error features may not be sufficient; teachers' purpose in providing corrections to their learners' written work is (with other things) developing accuracy in general, not only the use of one grammatical category. (e.g., Ferris, 2010; Storch, 2010). Anderson (2010: 5) added that "[e]specially for content teachers who still wish to address linguistic concerns alongside regular class content, the use of very focused feedback […] is impractical." Besides, learners might be rather confused when noticing that some of their errors have been corrected while others have not.

#### 2.9.1.2. Direct and Indirect Corrective Feedback

The second much discussed controversy is that between the two common types of corrective feedback direct and indirect error correction. The key differentiating feature between these two types is the involvement of the learners in the correction process. While direct corrective feedback involves "an indication of the error and the corresponding correct linguistic form", indirect correction only indicates that the error has been made by using different forms that differ in their explicitness (e.g., underlining of errors, coding of errors). It is the learners' role to correct their own errors instead of the teacher providing the target form.

Different points of views have been made with respect to the relative efficacy of direct and indirect corrective feedback, some supporting direct error correction, others in favour of the indirect correction methodology. On one hand, it has been argued that indirect

corrective feedback will be more beneficial because learners have to engage in a deeper form of language processing, when they self-edit their own writing (e.g., Ferris, 1995; Lalande, 1982). With respect to this opinion, the effectiveness of indirect error corrective feedback methodology leads to the fact that it "requires pupils to engage in guided learning and problem solving and, as a result, promotes the type of reflection that is more likely to foster long-term acquisition" (Bitchnere & Knoch, 2008: 415).

On the other hand, supporters of the direct error correction (e.g., Chandler, 2003) have argued that the indirect methodology could fail as it provides learners with insufficient information to deal with complex errors such as syntactic errors. Chandler (2003) additionally claimed that, whilst the direct correction approach helps learners to instantly internalise the correct form as provided by their teacher, indirect correction method does not enable learners to know if their own hypothesised corrections are accurate. This postponement in access to the target form is likely to level out the potential benefit of the extra cognitive effort related to indirect corrective feedback. In addition, it has been suggested that only direct corrective feedback provides learners the kind of explicit information that learners required for testing hypotheses about the target language (Bitchener & Knoch, 2010b).

Furthermore, it has been proposed that the effectiveness associated with both the direct and indirect corrective feedback methodologies might be specified by a number of intervening factors. It has been claimed that indirect corrective feedback methodology could be less beneficial to learners who have low L2 proficiency levels because they lack the level of met-linguistic knowledge which is necessary to self-correct their errors (e.g., Ferris, 2004; Hyland & Hyland, 2006). Ferris (1999; 2002) also suggested that the different corrective feedback methodologies effectiveness depends on the target error types. She argued that rule-governed errors are likely to be easy amended by self-correction based on indirect corrective feedback, but that more explicit information in the form of direct correction is still needed to enable learners to solve problems that have more idiosyncratic nature.

Ferris (2010) explained that teachers might have different aims that they want to achieve by providing corrective feedback. These aims might influence the hypotheses regarding the differential value of direct and indirect corrective feedback methodologies. She further clarified that, if the main goal a teacher aims at is language learning, direct correction is likely to be the most useful approach as it provides learners with the kind of

effective and explicit input needed for language acquisition. When aiming at helping learners in developing meta-cognitive revision, and editing skills, indirect correction might be more beneficial because it demands a more active form of engagement when processing it. Ellis et al. (2008) also noted that the direct and indirect corrections success relies on the kind of knowledge teachers select to transfer. They added that while both correction methodologies could be assumed to foster the reinforcement of already acquired knowledge, indirect approach, however, fails to aid the internalisation of new linguistic forms.

### 2.9.2. Which Errors to Correct

In addition to the effectiveness of corrective feedback methodologies, researchers have also considered the question of which errors to be corrected when providing corrective feedback. Different suggestions have been advanced in relation to this concern. For instance, Corder (1967) distinguished between error and mistakes. He saw that errors indicate gaps in learners' interlanguage system and will consequently become systematic themselves. On the other hand, mistakes 'unsystematic inaccuracies" such as slips of tongue/pen occur as a result of performance failures such as memory limitations. Corder proposed that it will be beneficial to correct learners' errors but not their unsystematic inaccuracies.

Other researchers (e.g., Burt, 1975; Burt & Kiparsky, 1972) differentiated between global and local. Errors that might result in communication breakdown by interfering with comprehensibility of the utterance such as word order errors and lexical errors were referred to as global errors. Local errors, on the other hand, indicate minor linguistic violations such as morphological errors that do not influence the intended meaning of a message. Hendrickson (1978) suggested that instructors should correct only global errors because they spoil communication.

Even though Krashen (1981; 1982; 1985) rejected the role of corrective feedback in L2 acquisition, he stated that the only value of corrective feedback could be in facilitating learners to monitor their L2 production. However, he noted that this potential effectiveness of corrective feedback is limited to simple and manageable categories such as third person-s in English, and that corrective feedback should only focus on this type of errors.

Ferris (1999; 2002) distinguished between treatable and untreatable errors. Untreatable errors refer to non-idiomatic or idiosyncratic errors such as lexical errors. Whereas,

treatable errors are categorised in patterned and rule-governed features such as article errors. Ferris recommended that corrective feedback provision is most likely to succeed if targets treatable inaccuracies.

With respect to the concerns in all of the above proposals, Ellis (2009) claims, for instance, that contradiction between errors and mistakes cannot be as firm as Corder (1967) appeared it to be and noted that "the gravity of an error is to a very considerable extent a matter of personal opinion" (Ellis, 2009b: 6). He also stated that there are not theoretical bases on which teachers or researchers can make a decision if an error is simple or portable. Similar opinion was held for Ferris' argument regarding treatable and untreatable errors.

The dissimilarity between grammatical errors and errors outside the grammatical domain has been suggested by Truscott (1996; 2001; 2007). Like Krashen, Truscott rejected any potential values of corrective feedback for the grammatical competence development. He argued that error corrections cannot impact the rules underlying grammatical errors and recommended that corrective feedback can only be useful for errors that "are relatively simple and can be treated as discrete items rather than integral parts of a complex system" (Truscott, 2007: 258) like spelling errors. Truscott's predictions regarding the responsiveness of some error features are contrasting Ferris' (1999; 2002). In other words, Truscott (2001) argued that lexical errors, for instance, are a kind of errors belonging to the most correctible L2 errors since they are relatively discrete, whereas Ferris suggested that lexical errors are precisely idiosyncrasy errors that should not be targeted by corrective feedback.

## 2.10. Empirical Work on Written Corrective Feedback

As the corrective feedback role in L2 acquisition is still debateable, the issue has been and still is, attracting a lot of research attention. The following review concentrates on the body of empirical research that aimed to add to the writing-to-learn body of research by exploring whether corrective feedback helps students' written accuracy improvement. The following sections consecutively discuss insights regarding: the potential of corrective feedback in producing accuracy development, the differential effectiveness of direct and indirect correction methodologies, the amenability of different error types to corrective feedback; and the potential harmful side-effects of error correction.

### 2.10.1. Research on the Effectiveness of Written Corrective Feedback

Although common teaching methods have been developing and changing, producing accurate written texts is still a significant aspect of second language teaching and learning. According to some L2 writing researchers (e.g. Ferris, 2006; Hyland & Hyland, 2006), accuracy in writing is an important element for both readers and writers. Skehan (1996) defined accuracy as the good production of the target language in relation to its grammar system. Wolf-Quintero et al (1998) gave definition to accuracy as "the ability to be free from errors while using language to communicate in either writing or speech" (p.33). This means that misuse of the target language's system in writing is likely to negatively affect the meaning of the written text. Thus, Second Language Acquisition theorists and educators have given the focus of attention to the role and treatment of error. Consequently, researchers initiated to explore ways in which writing teachers responded to L2 students' errors and the effects of theses interventions on writing accuracy.

A good number of studies have examined the effects of different types of written corrective feedback on student accuracy. However, the results of previous studies about its effectiveness have not yet conclusively proven that written corrective feedback is or (is not) effective in improving written accuracy. Some researchers have argued that providing students with written corrective feedback could improve their writing accuracy (e.g. Lalande, 1982; Ferris, 2006; Chandler, 2003; Bitchener & Knoch, 2010; Ellis et al., 2008; Sheen et al., 2009). On the other hand, others have argued that error treatment is ineffective, and it should be eliminated (e.g. Krashen, 1984; Semke, 1984; Truscott, 1996, 2007). Moreover, Truscott (2007) claimed that students try to avoid making too many errors by shortening and simplify their writing. This means that the usefulness of written corrective feedback is still uncertain. Despite the disagreement in opinions amongst researchers around the efficacy of written corrective feedback, there has been an agreement that written corrective feedback may be beneficial, but its effectiveness depends on a number of issues such as learners' level of proficiency, classroom activities, types of writing assignments, and the types of feedback provided by teachers (Bichener and Ferris, 2012).

### 2.10.2. Early Studies on Written Corrective Feedback

The earlier studies that investigated the effectiveness of corrective feedback on learners' accuracy could be classified into two groups. On one hand, the first group of studies focused on the role of corrective feedback during the revision process (e.g., Ashwell,

2000; Fathman & Whalley, 1990; Ferris, 1997; Ferris & Roberts, 2001). On the other hand, the other set of studies were conducted to answer the question whether correction produces a learning effect (e.g., Chandler, 2003; Kepner, 1991; Polio et al., 1998; Semke, 1984; Sheppard, 1992).

#### 2.10.2.1. Short-Term Revision Effectiveness of Written Corrective Feedback

The effectiveness of written CF was investigated by some early studies that focused mostly on providing L2 learners with feedback that would enable them to revise a piece of writing (e.g. Ashwell, 2000; Fathman & Whalley, 1990; Ferris, 1997; Ferris & Roberts, 2001). These studies were conducted in writing classes and the focus was on helping the learners improve the accuracy of their drafts. In other words, if learners were able to develop their writing accuracy, as a result of CF provision, these developments were considered as evidence of long-term learning, or short-term learning. These studies presented in ***Table 2.1*** revealed that correction does assist learners to decrease their errors on the writing they receive feedback on.

This evidence is supported by the most vocal critic of revision studies in written CF, Truscott, who recognised that "[O]ur findings confirm once again that correction does help students reduce their errors on the writing on which they receive the corrections, and that the effect is substantial" (Truscott & Hsu, 2008: 299). The revision efficacy of CF is a clear and consistent finding of all studies in the table regardless of their range of differences – simply indicating the errors by underlining them (Fathman & Whalley, 1990; Ferris & Roberts, 2001; Truscott & Hsu, 2008), coding specific error types (Ferris, 2006; Ferris & Roberts, 2001), across a broad range of errors and across different student populations and learning contexts.

The findings are valuable from a learning-to-write perspective since they revealed that corrective feedback has the ability to support learners improve more effective revision and editing skills (Ferris, 2010). However, from an SLA perspective these revision studies are less convincing based on Polio et al.' (1998) identification of development (i.e. the long-term effects of pedagogical intervention such as corrective feedback) as the main concern of SLA research. Therefore, Truscott (1996, 2007; Truscott & Hsu, 2008) reported that the accuracy improvement during revision cannot constitute a predictor of learning. Truscott stated that although it seems apparently beneficial for helping learners improve the certain written product under attention, there is no proof that such

involvement aids students either to acquire particular linguistic forms or to develop the overall linguistic accuracy of their writing on future pieces of writing.

**Table 2-1 Studies on short-term revision effectiveness of CF: Adapted from (Bitchener & Storch, 2016: 37)**

| Study | Subjects and CF methods | Findings |
|---|---|---|
| **Fathman and Whalley (1990)** | Four groups of 72 FSL students at two US colleges provided by different types of CF. Two of four given comprehensive CF, indirect, un-coded grammar feedback (all errors underlined); they allocated 30 minutes in class to revise their marked errors | Learners who received grammar feedback significantly reduced their number of errors; the two groups not receiving grammar feedback did not improve their writing accuracy. |
| **Ashwell (2000)** | 50 Japanese university students (EFL context) in four treatment groups; three of four received form-based feedback before revising their texts | Students who received form-based feedback wrote significantly more accurate revised drafts than a control group who receiving no feedback |
| **Ferris and Roberts (2001)** | 72 ESL students were divided into three treatment groups; two of three received error feedback on five major error types; they had 30 minutes to revise their marked errors | Students who received error feedback successfully revised 60-64 percent of their total errors; their correction ratio was significantly higher than a control group's ratio |
| **Ferris (2006)** | 92 ESL college students had second drafts of their essays marked by their teachers in 16 error categories; their papers were revised at home; 149 pairs of second and third drafts (two different assignments) were analysed for self-editing success | Students successfully revised over 81 percent of the errors marked by their teachers; success ratios varied across error categories and teacher correction techniques |
| **Truscott and Hsu (2008)** | 47 EFL graduate students were divided into two treatment groups; the experimental group received underlined; un-coded feedback on errors; texts and revisions were written in class | Students in the experimental group significantly outperformed the control group in self-correcting errors during revision |

#### 2.10.2.2. Long-Term Effectiveness of Written Corrective Feedback

Before Truscott's (1996) claim, a few early studies examined the learning potential of written feedback by providing learners with content comments (unfocused direct & indirect written feedback) on a wide range of error categories (e.g. Kepner, 1991; Semke, 1984; Robb et al, 1986, Sheppard, 1992) as illustrated in ***Table 2.2***. These four early

studies revealed no significant differences between the correction and non-correction groups and concluded that written CF cannot be a facilitator to improve learners' written accuracy. For instance, Semke's (1984) 10-week study investigated 141 German FL students at a US university, students were separated into different groups according to types of feedback- direct corrections, content comments, direct error correction and content. Semke reported no significant differences in accuracy between the three written corrective feedback groups and the comments on content group and so concluded that written corrective feedback was no more beneficial to those who received it than those who did not.

Robb et al. (1986) conducted research on 134 Japanese EFL learners whose errors treated by direct corrections, indirect coding, indirect highlighting, and indirect marginal error totals. Robb et al. (1986) reported that even though all groups showed improvement, there was no difference between the groups and therefore no difference between feedback groups and the control group. Kepner's (1991) study of 60 intermediate level learners in FL (in Spanish context), who were divided into two treatment groups (direct error correction group and content comments group), without control group of learners. The findings revealed that there were no significant differences in the number of errors between two groups after a 12-week period.

However, different opinions have been given about the type of conclusion that can be drawn from the findings. On one hand, Ferris (2003; 2004) suggested that as the correction group made fewer errors, it can be concluded that there was weak evidence of a beneficial effect for written corrective feedback. In contrast, Truscott (2007) concluded that this study did not provide evidence in support of the efficacy of written corrective feedback. Finally, in Sheppard's (1992) ten weeks study, there were 26 upper-intermediate ESL learners. He also compared two groups, one received written corrective feedback, while the other group received comments on the content. In addition, they had a one-on-one conference with their teacher. Sheppard reports that no advantage was gained in terms of improved accuracy by the written corrective feedback group.

Some may argue that as findings of these studies found no differences in accuracy between two groups, this could support Truscott's (1996) claim against the efficacy of written corrective feedback. Ferris (2003; 2004), however, argued that the findings of these four studies could not be reliable due to their design and methodological flaws. In addition, she pointed out that the researchers focused on different error categories which

could be a reason of the absence of the positive effect of written corrective feedback. Since their contradictory findings might be associated with some methodological problems such as time-on task differences or lack of a control group, both opponents (e.g., Truscott, 1996) and supporters (e.g., Ferris, 1999) of written corrective feedback called for more, well designed corrective feedback studies. The following sections, therefore, are about the growing body of more recent research that has tried to avoid the shortcomings of these early studies and reported entirely different findings.

**Table 2-2 Early studies on the long-term effectiveness of CF: Adapted from (Bitchener & Ferris, 2012: 54)**

| Study | Subjects and CF methods | Findings |
|---|---|---|
| **Semke (1984)** | 10-week study 141 German FL students at a US university, divided into different groups according to types of feedback- direct corrections, content comments, direct error correction and content comments, and indirect coding, | No difference between two methodologies was reported |
| **Robb et al. (1989)** | 134 Japanese EFL learners whose errors treated by direct corrections, indirect coding, indirect highlighting, and indirect marginal error totals | No difference between two methodologies was reported |
| **Kepner (1991)** | 60 intermediate FL learners, types of direct error correction; and content comments | No differences were reported between the two treatments |
| **Sheppard (1992)** | 26 upper-intermediate ESL learners; errors corrected by direct and conference; error coding | No difference was recorded |

## 2.10.3. Recent Studies on Written Corrective Feedback

### 2.10.3.1. Long-Term Effectiveness of Written CF

In defence of the role of written CF in revision to facilitate long-term acquisition, some researchers have mounted arguments to counter Truscott's (1996, 2007; Truscott & Hsu, 2008) critique of revision studies. For instance, Sachs and Polio (2007) emphasised feedback role (of different types) in increasing learners' noticing of non-target, interlanguage forms (errors) in their spoken and written output. As to the particular concern of written CF and revision, they highlighted:

> *"… the term acquired might refer to various sorts of gradual and nonlinear changes in both linguistic and metalinguistic behaviour, which include not only the appropriate use of linguistic forms, but also, for example, the constructs of emergence, detection, restructuring, and awareness. If we can consider this line of thinking to be relevant to studies of written feedback as well, then a range of psychological processes might be seen as constituting steps towards L2 development, and it might be possible to talk about the process of acquiring L2 forms based on learners' … revision changes. (Sachs and Polio, 2007, p. 75)"*

In this section, research reports on long-term effects of written CF are considered, and their summary is shown in ***Table 2.3***. These studies are longitudinal and investigated learners' production of new texts after receiving corrective feedback. All of the studies found that learners who received feedback made some progress in their written accuracy over time. However, that statement cannot be definite due to a number of significant qualifications that have been made regarding these studies. In most of the studies, a "control group" was not included. It has been repeatedly pointed out in critiques of this research, the lack of a control group makes it difficult to argue that written CF alone caused any measurable enhancements (Truscott, 2007).

The researchers of this group of studies acknowledged and provided an explanation of this short-coming. For instance, in Chandler (2003), the control group was not "no-feedback" group but rather they received their feedback later than did the experimental group. Chandler explained that the questionnaire results had demonstrated "that the vast majority of students wanted the teacher to mark every error. Since the students felt strongly about this, the teachers could only justify the treatment of the control group by offering them the same treatment as the experimental group later in the semester" Chandler, 2003: 273). This issue led Ferris to describe it as "methodological Catch-22" (2004, p. 56). Bitchener and Ferris (2012: 87) clarified "writing researchers (who are normally teachers) feel ethically constrained from withholding written CF from students for any substantial period of time by using a subset of student writers as controls, but if they do not so, they are criticized for lack of empirical rigor".

The other concern highlighted in these studies is that students' progress shows variation. For example, some students made more development on some error types than others, this is likely attributed to different factors such as past learning experiences, difficulty

level of some L2 forms and structures, writing class instruction (Ferris, 1995a; Lunsford & Lunsford, 2008). Likewise, there is the issue of variations across task types in some of this set of studies. However, to some extent this research can reasonably be evidence to suggest that learners who were given written CF over time were able to make some progress in overall written accuracy. As stated by Ferris, “if the existing longitudinal studies do not reliably demonstrate the efficacy of error feedback, they certainly do not prove its uselessness, either” (2004, p.55).

**Table 2-3 Recent studies on Long-term effectiveness of CF: Adapted from (Bitchener & Ferris, 2012: 88)**

| Study | Subjects and CF methods | Findings |
|---|---|---|
| **Haswell (1983)** | Three freshman composition sections; Haswell compared error ratios on essays written at the beginning and ending of a semester after Haswell's minimal marking technique was used; no control group | All three groups substantially reduced their error ratios over the semester; fluency also improved, as the final essays were 23 percent longer (and written under the same timed conditions) |
| **Ferris (1995a)** | 30 ESL freshman composition students at a US university followed over a 15-week semester; each student had individual error patterns identified at the beginning of the course, and written CF throughout the term focused specifically on those patterns; no control group | All but two of the students showed improvement on at least some of the individually targeted error patterns over the semester; results varied as to error type and writing task |
| **Chandler (2003)** | 31 international students at a US music conservatory wrote five papers; treatments group was required to correct marked errors after every draft | Experimental group significantly decreased its overall error ratios between paper1 and paper 5; this was also significantly better than a control group's ratios |
| **Ferris (2006)** | 55 ESL students in six sections of a developmental writing course at a US university; errors made on paper 1 and paper 4 (end of semester) were compared across five error categories after students received systematic written CF all semester | Students significantly reduced their total error ratios and their verb errors; changes in other categories were non-significant; tremendous individual variation as to long-term improvement |
| **Foin and Lange (2007)** | 58 students in an advanced ESL composition class at a US university; errors made on an early draft and final draft were compared across eight categories | Marked errors were successfully corrected in 77-81 percent of the cases; unmarked errors were corrected 32 percent of the time |
| **Ferris et al. (2010)** | 10 ESL students in a developmental writing course at a US university' studied with qualitative case study methodology; students received written CF on up to four error patterns on four texts apiece, were given time to revise those texts, and then were each interviewed three times about their strategies and understanding of feedback | Students showed improvement in at least some error categories over time and all felt that the combination of individually targeted written CF and in-person discussion of errors was very helpful on both in-class and especially out-of-class writing |

#### 2.10.3.2. Direct and Indirect Corrective Feedback Effects

Theoretically, arguments have been advanced for different types of written CF. It has already been explained that different corrective feedback methodologies have often been classified as either direct or indirect types of correction, and different predictions relating to their relative effectiveness have been put forward. In this study, the focus is on the research into the relative efficacy of two foremost generally known feedback types: direct or explicit feedback and indirect feedback. Bitchener and Ferris (2012) referred to direct written corrective feedback as "that which provides some form of explicit correction of linguistic form or structure above or near the linguistic error and usually involves the crossing out of an unnecessary word/ phrase/ morpheme, the insertion of a missing word/ phrase/morpheme, and / or the provision of the correct form or structure" (p. 65). On the other hand, indirect written corrective feedback has been defined as "that which indicates an error has been made but it does not provide a correction or explicit meta-linguistic information" (p. 65).

Both corrective feedback methodologies can be provided in various forms. For example, explicit meta-linguistic information such as grammar rules and instances of correct usage and, sometimes, with oral form-focused explanation can be provided as direct written corrective feedback. Whereas, indirect written corrective feedback can be coded (giving an error a metalinguistic code such as WW for "wrong word") instead of underlining or circling errors. Lee (2004) noted that direct feedback generally consists of the teacher providing the correct form or explanation of an error on a student's paper. Indirect feedback, on the other hand, is provided when the teacher only indirectly indicates the location/ place of an error in the text by underlining, highlighting or circling it, or by marginalia indicating in the general location and nature of an error, but without providing the correct form ***(see 2.3 for written corrective feedback definition)***.

Lee's description of direct feedback indicates that teachers revise student's essays or paragraphs word by word and correct every mistake they find in their students' writings. The students' job then is to transcribe the teachers' corrections into their papers. Whereas, indirect feedback requires that teachers only indicate that a mistake has been made, but do not provide any correction. Students themselves must then both identify the type of error and self-correct it.

#### 2.10.3.3. Direct vs Indirect Corrective Feedback Effects

A number of studies that investigated the relative values of different types of feedback have been gathered in ***Tables 2.4 & 2.5***. These studies have made a comparison between: (1) direct and indirect types of feedback and (2) different types of direct feedback. Like the findings of the general effectiveness of written corrective feedback, investigations on feedback types have also provided contradictory results and have not yet been able to confirm any of the hypotheses. Regarding those that have compared the two types, they also have conflicting findings. For example, Lalande's (1982) research investigated the efficacy of two types of corrective feedback: direct corrections to the provision of error codes on the accuracy improvement of 60 intermediate German FL learners. He reported that indirect corrective feedback was more useful than direct error correction. To stress the role and the effectiveness of written corrective feedback, Lalande (1982) suggested that this technique is most beneficial as it involves students in directed learning and problem solving.

However, this finding in Lalande's (1982) study is likely to be criticised as there was no significant differences between groups in accuracy development. Besides, as van Beuningen et al. (2012) noted "the two treatments differed in more respects than just the method of CF provision; the indirect group was engaged in more form-focused activities than the group receiving direct CF" (P.7). Ferris' (2006) study revealed an advantage of indirect corrective feedback over direct correction in developing the accuracy of 86 ESL learners' writing over time. She also noted that indirect written corrective feedback had positive long-term effects.

Similarly, Chandler's (2003) study examined the accuracy improvement of 20 ESL learners who received direct corrective feedback and two types of indirect corrective feedback: underlining of errors, and error codes. The findings showed that direct feedback was the most effective methodology. She also reported that although direct error correction and underlining were more effective than error codes, there was no difference between error codes and underlying. This study cannot be accepted as providing evidence that direct error correction is more or less effective than indirect error correction due to critique that the learners received repeated treatment rather than one treatment (Bitchener & Storch, 2016).

Other studies (e.g., Frantzen, 1995; Robb, Rose & Shortreed, 1986) were unable to prove obvious differences in accuracy development between groups receiving direct corrective

feedback and groups who received indirect corrective feedback on their errors. Therefore, these studies equally cannot provide insights into relative effectiveness of direct and indirect correction methodologies.

On the other hand, other researchers found that although there were short-term benefits for both direct and indirect feedback, direct CF had more significant long-term impact on improving learners' accuracy (e.g., van Beuningen et al, 2008, 2012; Bitchener & Knoch 2010b). For instance, Bitchener and Knoch (2010b) explored the efficacy of two types of direct correction and one type of indirect corrective feedback. They reported that direct and indirect error corrections showed to have equal effectiveness in developing students' accuracy use of English articles over a one-week period, only the impact of the two-direct corrective feedback lasted ten weeks later. They also suggested that direct written corrective feedback can be a more useful tool to writers because it can provide students with information to understand complex errors. Although the findings of these few studies (e.g., Van Beuningen et al, 2008, 2012; Bitchener & Knoch 2010b) demonstrated the effectiveness of direct corrective feedback in developing students' accuracy, the scarcity of comparable research makes it premature to draw any conclusions about the advantage of direct error correction over indirect CF.

In the same scope of comparing the relative effects of direct and indirect CF, the studies that have already been mentioned in section 2.6.2 also found no difference between the two types of written corrective feedback (i.e., Semke, 1984; Sheppard, 1992; Robb et al., 1986). The validity of these studies' findings is debatable and final conclusions cannot be drawn because of some deficiencies in their design and implementation. Guenette (2007) pointed out that Semke's (1984) study was questionable because the participants in this study were treated differently- the experimental group were asked to rewrite their essay instead of writing a new one, and this may be a factor affecting the findings. Once again, drawing firm conclusions about the effectiveness of two different types of written corrective feedback might be challenging. Consequently, one might expect more explicit forms of written CF (i.e. direct error correction) to be more beneficial than less explicit (i.e. indirect error correction), this is the main focus of the next section.

**Table 2-4 Studies on comparing direct and indirect CF effectiveness: Adapted from (Bitchener & Ferris, 2012: 67)**

| Study | Subjects and CF methods | Findings |
|---|---|---|
| **Lalande (1982)** | 60 intermediate German FL learners, errors treated by direct corrections and indirect coding | Advantage reported for indirect coding but not statistically significant |
| **Semke (1984)** | 10-week study 141 German FL students at a US university, divided into different groups according to types of feedback- direct corrections, content comments, direct error correction and content comments, and indirect coding, | No difference between two methodologies was reported |
| Robb et al. (1989) | 134 Japanese EFL learners whose errors treated by direct corrections, indirect coding, indirect highlighting, and indirect marginal error totals | No difference between two methodologies was reported |
| **Chandler (2003)** | 20 intermediate ESL learners, types of direct error correction, underlining, and error coding were delivered | Both direct error correction and underlining were significantly more effective than error coding; no significant differences were reported between direct CF and underlining |
| **Van Beuningen et al. (2008)** | 62 secondary school learners in Dutch multilingual classrooms, provided with direct error correction, indirect error coding, writing practice, and self-correction revision | Direct error correction more effective long-term; both direct and indirect feedback effective short-term |
| **Van Beuningen et al. (2012)** | 268 secondary school learners in Dutch multilingual classrooms were treated by direct error correction, indirect error coding, writing practice, and self-correction revision | Direct feedback more effective for grammatical errors but indirect for non-grammatical errors |
| **Bitchener and Knoch (2010b**) | 63 advanced ESL learners at a US university; errors corrected by direct meta-linguistic explanation; indirect circling; direct meta-linguistic explanation and oral explanation, and control | Direct error correction more effective long-term; all direct and indirect feedback options have equal short-term effects |

#### 2.10.3.4. Different Types of Direct Corrective Feedback Effects

Recently, a number of studies has investigated the effectiveness of different patterns of direct CF on developing learners' accuracy (e.g., Bitchener et al., 2005; Bitchener, 2008; Bitchener and Knoch, 2008; Bitchener and Knoch, 2010a; Sheen, 2007). A number of these studies (e.g., Bitchener et al., 2005; Bitchener, 2008; Bitchener and Knoch, 2008; Bitchener and knoch, 2010a) were a comparison between the effects of three types of direct feedback (i.e. direct CF alone, direct CF combined with written meta-linguistic explanation; and direct with oral and written meta-linguistic explanation) and varied findings were reported. While in Bitchener's et al., (2005) the direct CF with oral and written meta-linguistic explanation was more effective than direct CF alone, the direct CF alone and direct CF with oral and written meta-linguistic explanation were more beneficial than direct CF with written meta-linguistic in Bitchener's (2008) study.

However, two following studies on the same types of direct CF revealed no differences between different direct CF types in developing learners' accuracy (e.g., Bitchener and Knoch, 2008; Bitchener and knoch, 2010a). An additional example of the effectiveness of providing learners with different types of direct corrective feedback was a study by Sheen (2007), where two types of direct feedback: direct error correction alone and direct with written met-linguistic explanation) were investigated. Although there was no difference between the two feedback options in the immediate post-test, direct with written meta-linguistic feedback was more effective in the delayed post-test over two months. A recent study conducted by Stefanou (2014) also found no difference between different types of direct CF (direct CF alone; and direct with written meta-linguistic explanation).

Therefore, a firm conclusion about the usefulness of two different types of direct feedback (written feedback alone, written and oral meta-linguistic explanation in addition to indirect feedback cannot be reached yet. These studies have been criticized for their narrow-targeted focus (i.e. the only two functional uses of the English article system). For instance, Xu (2009) showed her concern with the limited focus of Bitchener's (2009) and Ellis et al.'s (2008) studies on only two functional uses of English article system. She claimed that this will not be able to develop our knowledge more generally. Thus, the following section's main focus is about written corrective feedback and targeting certain linguistic error categories.

**Table 2-5 Studies on comparing direct with different types of direct CF effectiveness: Adapted from Bitchener & Ferris, 2012: 68)**

| Study | Subjects and CF methods | Findings |
|---|---|---|
| **Bitchener et al. (2005)** | 52 advanced ESL learners, errors treated by direct error correction, and direct error correction with oral meta-linguistic explanation | Advantage reported for direct error with oral meta-linguistic explanation |
| **Bitchener (2008)** | 75 low intermediate ESL learners, provided by direct error correction with written and oral meta-linguistic explanation, direct error correction with written meta-linguistic explanation, and only direct error correction | Direct error correction with written and oral meta-linguistic explanation, and only direct error correction outweighed the direct error correction with written meta-linguistic explanation |
| **Bitchener and Knoch (2008)** | 144 low intermediate ESL learners whose errors treated by direct error correction with written and oral meta-linguistic explanation, direct error correction with written meta-linguistic explanation, and only direct error correction | No difference was noticed between three treatments |
| **Bitchener and Knoch (2010a)** | 52 low intermediate ESL learners, their errors treated by direct error correction with written and oral meta-linguistic explanation, direct error correction with written meta-linguistic explanation, and only direct error correction | No difference found between three treatment groups |
| **Sheen (2007)** | 91 intermediate ESL learners' errors treated by direct error correction, and direct with written meta-linguistic explanation | No difference between two treatments in immediate post-test, but direct with written meta-linguistic explanation was more effective on the delayed post-test |
| **Stefanou (2014)** | 89 EFL Greek learners were given two direct treatments; direct and direct with written meta-linguistic explanation | No difference between two treatment groups |

#### 2.10.3.5. Focused (Targeting Specific Error Categories) Corrective Feedback Effects

This section presents a set of studies that have investigated the question whether it was reasonable to explore written corrective feedback effects across multiple error categories. Some researchers in their study designs targeted a limited range of linguistic errors that learners make to explore the effects of focused corrective feedback (e.g., Bitchener, 2008; Bitchener & Knoch, 2008; Bitchener & Knoch, 2009; Bitchener & Knoch, 2010a;

Bitchener & Knoch, 2010b; Ellis et al., 2008; Sheen, 2007; Sheen, 2010b). These studies follow the methodology of oral feedback research (e.g., Lyster, 2004; Ellis, Loewen, & Erlam, 2006) and the focus of corrective feedback methods targets in particular persistently problematic features only (i.e. errors in the use of English article system), leaving errors outside the focus domain without correction.

Furthermore, Ellis (2008) argued that learners would not be able to process the error if they received correction on more than one or a few categories. He added that "the more intensive the attention, the more likely the correction is to lead to learning" (p.102). This means that learners would be able to understand the error and understand how to correct it if teachers provide them with focused written corrective feedback on a specific linguistics error. These well- controlled studies found convincing positive effect of focused corrective feedback. Furthermore, they reported that the accuracy gains proved to be very durable. For instance, Bitchener and Knoch (2010a) noted that learners who had focused corrective feedback (only once) continued to outperform learners who did not receive corrections over a 10-month period.

A presentation of recent studies that have examined the efficacy of written corrective feedback on one or few target linguistic errors is shown in ***Table 2.6*** (e.g. Bitchener, 2005; Bitchener, 2008; Bitchener and Knoch, 2008, 2010a, 2010b; Sheen, 2007; Sheen et al., 2009; Ellis et al., 2008, Frear, 2012; Guo, 2015, Rummel, 2014; Shintani & Ellis, 2013; Shintani et al., 2014; Stefanou, 2014). The aim of these studies is to examine to what extent written CF can facilitate learners to understand how some forms and structure of the English system work, and to enable them to utilise this knowledge accurately when revising and writing new texts. Bitchener et al. (2005) examined the effectiveness of written CF on three linguistic categories (the use of English articles in general, past simple tense and the use of prepositions). This study was carried out over a 12-week period of time and its findings revealed that CF was effective to help learners improve using the articles and past simple tense accurately, but CF was not effective for using prepositions. However, Bitchener (2008) noted that the previous findings did not investigate to what extent CF was effective in targeting the functional use of the English article system.

Accordingly, some of other studies carried out by Bitchener and others (e.g., Bitchener and Knoch, 2008; Sheen, 2007; Ellis et al., 2008) improve their studies to examine this question. For example, Bitchener and Knoch's (2008, 2009b, 2010a, 2010b) studies investigated the effectiveness of CF on two frequent functional uses of the English article.

They targeted the use of the indefinite article 'a/an' for the first mention and the use of the definite article for subsequent or anaphoric mentions. They found that learners in different levels (i.e. intermediate, low-intermediate and advanced) who received CF attained short-term and long-term development in using the articles for both functions. For example, Bitchener and Knoch (2010a) carried out a 10-month study to investigate both short-term and long-term impacts of direct and indirect written corrective feedback on learners' writing accuracy. They targeted only two functional uses of English article system. Students were divided into four groups: group one received direct error correction, written, and oral met-linguistic explanation; group two received direct error correction and writing meta-linguistic explanation; group three received indirect focused circling; and the forth group did not receive any feedback. The study found that the three groups who received focused written corrective feedback outperformed the control group, who did not receive feedback.

Additionally, they found that learners developed differently over time. These findings are supported by Ellis et al. (2008) and Sheen (2007) who found that CF is effective in facilitating learners' use of these frequent functions of the English article system. Shintani and Ellis' (2013) and Shintani et al.'s (2014) studies found that although the meta-linguistic explanation provision helped learners improve accuracy in the immediate post-test, CF was unable to aid learners to improve their use of indefinite article over time. Hence, Ferris (1999) argued that in the language system there are some forms and structures are more "treatable" than others. Since then, it has been proposed that rule-based forms and structures such as regular past simple tense might be more treatable than irregular past simple tense because there is no rule to govern them (e.g., Ferris, 2002, 2003; Bitchener & Ferris, 2012).

Further research gave attention to the effectiveness of written corrective feedback for helping learners improve their accuracy in using past simple tense. Bitchener et al. (2005) and Rummel (2014) revealed that even though CF was effective for helping learners improve the accuracy (i.e., using the simple past tense), however, learners were unable to differentiate between the regular past simple tense with -ed suffix and irregular past simple tense. Frear (2012) also investigated the effectiveness of CF on helping learners improve their accuracy in using regular and irregular past simple tense. The findings reported that a rule-based form requiring the suffix -ed (regular past simple tense) was less difficult for learners than irregular past simple tense. Similar findings were reported on the prepositions use in Bitchener et al.'s (2005) study that prepositions were less

responsive to written CF because some prepositions are used for various functions, depending on the linguistic environment and, sometimes an individual's stylistic preference. In this way they are similar to irregular verb forms because they are not rule-governed in a clear way and may need to be learned lexically. Guo (2015) also examined the effectiveness of CF for targeting errors in the use of prepositions of space. Results of his study found that CF was not effective to help Chinses FL learners improve their accuracy in using preposition demonstrating space.

**Table 2-6 Studies about CF effectiveness on linguistic errors focus: Adapted from (Bitchener & Storch, 2016: 53-54)**

| Study | Target error categories | Findings |
|---|---|---|
| **Bitchener et al. (2005)** | The focus was on article, past simple tense, preposition | Advantage reported for article and past simple tense |
| **Bitchener (2008)** | The focus was on indefinite article '*a*' for first mention and definite article '*the*' for subsequent or anaphoric mentions | Advantage reported for both |
| **Bitchener and Knoch (2008 & 2009b)** | The focus was on indefinite article '*a*' for first mention and definite article '*the*' for subsequent or anaphoric mentions | Advantage reported for both |
| **Bitchener and Knoch (2010a & 2010b)** | The focus was on indefinite article '*a*' for first mention and definite article '*the*' for subsequent or anaphoric mentions | Advantage reported for both |
| **Ellis et al. (2008)** | The focus was on indefinite article '*a*' for first mention and definite article '*the*' for subsequent or anaphoric mentions | Advantage reported for both |
| **Frear (2012)** | The focus was on regular and irregular verb forms | Advantage reported for regular but not irregular forms |
| **Guo (2015)** | The focus was on regular and irregular past tense; prepositions including space | Short-term advantage was reported for irregular past tense |
| **Rummel (2014)** | The focus was on past simple tense and present perfect tense | Advantage was reported for both |
| **Sheen (2007)** | The focus was on indefinite article '*a*' for first mention and definite article '*the*' for subsequent or anaphoric mentions | Advantage was reported for both |
| **Shintani & Ellis (2013)** | The focus was on indefinite article | Advantage was reported in immediate post-test but not over two weeks |
| **Shintani et al. (2014)** | The focus was on indefinite article and hypothetical conditional clauses | The advantage was reported for hypothetical conditional but not over time; no effects on indefinite article |
| **Stefanou (2014)** | The focus was on articles with generic and specific plural referents | Advantage was reported for both error categories |

#### 2.10.3.6. Unfocused (Comprehensive) Corrective Feedback Effects

It is important to notice that studies that have targeted particular functional uses of a form or a specific structure might not consistently gain similar findings to studies targeting other functional uses. Therefore, there is a growing body of research that has compared the effect of written CF on a number of different areas of written accuracy such as grammatical forms and structure, lexical and punctuation errors (Truscott & Hsu, 2008; Van Beuningen et al. 2008, 2012) as shown in ***Table 2.7***. Truscott and Hsu in their study (2008) investigated the effectiveness of indirect (underlining and un-coding) CF on a broad range of error types (i.e. all linguistic errors, spelling and punctuation). Truscott and Hsu found that while comprehensive corrective feedback facilitated the students to develop the accuracy of a specific text during revision, it did not result in accuracy gains in a new written text (Truscott and Hus, 2008). However, Bruton, 2009a) noted that in Truscott and Hsu' (2008) study, the texts that the learners wrote during the pre-test had very few errors to begin with, and, as a result, corrective feedback had given little room to improve learners' texts in the post-test. Therefore, the fact that unfocused corrective feedback did not lead to accuracy gains in a new text could not be conclusive.

Van Beuningen et al.'s (2008 and 2012) studies compared the effectiveness of two different forms of written CF- direct and in direct- on different error categories (all grammatical and non-grammatical errors), and they found that both direct and indirect CF have short-term effectiveness, but only direct CF has long-term effectiveness. They also reported that indirect CF was more effective on non-grammatical errors, while direct CF is more effective on grammatical errors. Although these studies revealed that learners whose errors were corrected made significant reductions in their error rates compared to those in the control group, who did not receive written CF during revision, the results of the studies are conflicting with regard to the role of written CF for learning. Truscott and Hsu (2008) noted that the accuracy improvement their experimental group's accuracy development that they gained during revision did not lead to accuracy improvement in their writing of new texts and therefore concluding that "the successful error reduction during revision is not predictor … of learning" (Truscott and Hsu, 2008, p. 299).

It can be seen that although the well-designed studies (i.e., Truscott and Hsu (2008) and Van Beuningen' (2008; 2012) have investigated the effectiveness of unfocused written corrective feedback in improving learners' accuracy, the findings are contradictory. Furthermore, questions can be asked regarding some of the design and execution characteristics of these studies. For instance, in Truscott and Hsu study, only one type of

corrective feedback was investigated, and that was indirect underling of errors. Concerning the Van Beuningen studies, question might be asked about whether researchers controlled for additional input between giving feedback and the one-week delay in administrating the immediate post-test. Due to these restrictions, any firm conclusion regarding the effectiveness of written CF on targeting unlimited number of error categories seems to be too early to draw. Thus, the present study was conducted as a modest attempt to contribute to this knowledge.

In summary, the studies reviewed in the previous section primarily focus on what Ferris has called "'the big question' – whether or not error feedback helps students to improve in written accuracy over time" (p. 56).

**Table 2-7 Studies about CF effectiveness on unfocused errors: Adapted from (Bitchener & Storch, 2016: 59)**

| Study | Target error categories | Findings |
|---|---|---|
| **Truscott and Hsu (2008)** | All grammatical errors, spelling and punctuation errors were corrected by underlining, un-coding indirect CF | Written CF was not long-term effective |
| **Van Beuningen et al. (2008)** | All grammatical forms/ structures (e.g. tenses; singular-plural; word order), incomplete sentences, lexical choice, word omission or inclusion, spelling, punctuation, capitalisation; treated by direct and indirect CF | Advantage reported for both direct and indirect CF effective short-term, only direct CF more effective long-term |
| **Van Beuningen et al. (2012)** | All grammatical forms/ structures (e.g. tenses; singular-plural; word order), incomplete sentences, lexical choice, word omission or inclusion, spelling, punctuation, capitalisation; treated by direct and indirect CF | Advantage reported for both; direct CF more effective for grammatical but indirect for non-grammatical items |

## 2.11. Research into the Value of Corrective Feedback for Different Error Types

It has been claimed that all linguistic errors cannot be similarly responsive to the same type of written corrective feedback (e.g., Ferris, 1999; Truscott, 1996) due to the fact that morphological, syntactic, and lexical errors represent gaps within different linguistic knowledge domains (e.g., Schwartz, 1993). Although over years different predictions regarding the corrective feedback amenability of different types of errors have been advanced, '*which error to be corrected*' is still an empirical one.

Some studies have explored the efficacy of corrective feedback on distinct error types and revealed different levels of development for different types of errors (e.g., Bitchener, Young, & Cameron, 2005; Ferris, 2006; Ferris & Roberts, 2001; Frantzen, 1995; Laland, 1982; Sheppard, 1992). For instance, Ferris (2006) discerned between five major error types: verb errors, noun errors, article errors, lexical errors and sentence structure errors. She found that learners who received corrective feedback only showed a significant decrease from pre-test to post test in verb errors. In addition, Lalande (1982) differentiated 12 error types, and reported that correcting just resulted in a significant reduction in orthographical errors. Bitchener et al (2005) examined how corrective feedback affected learners' accuracy improvement on three target structures. He observed that corrective feedback had great influence on the accuracy of past simple tense and articles than on the correct usage of prepositions. These findings reveal that the effectiveness of corrective feedback might be influenced by the error that is targeted. The following section is a brief review of studies that have examined student preferences regarding written corrective feedback.

## 2.12. Research on Learners' Response and Preference of Corrective Feedback

Learners have various learning styles as well as preferences for teaching practices (Reid, 1997; Katayama, 2007). A number of different variables such as age, language background, level of education, context of study and learning experience can influence learners' learning styles and preferences (Reid, 1997). Learners' strategies employ for their learning can be shaped by their learning styles and preferences (Reid, 1997). These views provide a guide for L2 researchers as well as teachers to assume that learners' attitudes and preferences to corrective feedback might help learners to utilise their strategies when dealing with corrective feedback in their language learning, their language acquisition and their writing skills improvement (e.g., Hedgecock & Lefkowitz, 1996; Chiang, 2004; Lee, 2005; Katayama, 2007). Learners are expected to deal with their preferred type of corrective feedback, and they are likely to use the strategies they learn when dealing with their preferred corrective type in improving their writing (Zchuz, 2001), because "unfavourable teacher feedback … could be a source of frustration for students, debilitating and demotivating them at the same time" (Lee, 2005: 4). Students may become frustrated and anxious when they are provided with a type of corrective feedback they do not like.

There has been a growing interest in investigating learners' views and preferences towards corrective feedback because they can aid "us understand what students want and how they feel about what we do, can assist us in perceiving ways in which our philosophical and practices and even our specific feedback techniques may be misunderstood by students" (Ferris, 2003a: 93). Nevertheless, Truscott's (1996, 1999) studies raised the question of whether students' preferences should be considered when providing them with written corrective feedback. He noted that:

> *"abundant evidence shows that students believe in correction… but this does not mean that teachers should give it to them. The obligation teachers have to students is not to use whatever form of instruction the students think is best, but rather to help them learn… when students hold a demonstrably false belief about learning, the proper response is not to encourage the belief, but rather to show them that it is false (Truscott, 1996, p. 359)."*

## 2.13. Research on Learners' View towards Specific Aspects of CF

A brief review of some research studies and their findings about learners' preferences and attitudes towards the value of corrective feedback, methods of feedback provision, error correction types and feedback focus will be presented in the following sections below.

### 2.13.1. The Value of Corrective Feedback

Some studies have examined learners' view about the value of feedback and found that students appreciate teacher's feedback and prefer to have corrective feedback on the errors they commit in their written texts and they consider that feedback is essential in developing their writing skills (e.g., Radecki & Swales, 1988; Cohen & Cavalcanti, 1990; Hyland, 2003; Chiang, 2004; Diab, 2005b; Lee, 2008b; Hamouda, 2011). While, some studies revealed that learners prefer teacher written feedback more than other methodologies of feedback provision (e.g., Radecki & Swales, 1988; Leki, 1991; Tsui & Ng, 2000; Zhu, 2010; Hamouda, 2011), other studies showed that learners prefer to receive either written or oral feedback (e.g., Arndt, 1993; Saito, 1994). Some studies concluded that learners believe that it is the teachers' responsibility to provide feedback on their errors (e.g., Radecki &Swales, 1988; Lee, 2005). Other body of research indicated that learners do not prefer feedback provided by their peers as they think that their peers are not knowledgeable enough to correct errors and lack the ability to give

beneficial comments and recommendations (e.g., Oladejo, 1993; Saito, 1994; Tsui & Ng, 2000; Hamouda, 2011). These findings suggest that learners appreciate receiving corrective feedback on their writing which is provided by their teacher in either written or verbal forms.

### 2.13.2. Form or/and Content

Advocators and even opponents come to an agreement that corrective feedback provided on text organisation and content help learners develop their writing skills (e.g., Fathman & Whalley, 1990; Ferris & Hedgcock, 2005; Kepner, 1991; Truscott, 1996, 1996). On the other hand, some SLA and EFL studies demonstrate that learners prefer their teacher's correction to focus on surface errors (e.g., Leki, 1991; Saito, 1994; Enginarlar, 1993; Lee, 2005; Diab, 2005a; Diab, 2006; Amrhein & Nassaji, 2010; Hamouda, 2011). Other few studies showed that learners prefer their teacher' feedback focus more on the content and organisation in their texts (e.g., Cohen & Cavalcanti, 1990; Oladejo, 1993). For instance, Chiang (2004) investigated learners' preferences regarding corrective feedback focus. Chiang compared between preferences of 15 senior and 15 junior learners at a secondary school. The questionnaire findings revealed that both senior and junior learners preferred their teacher's feedback to focus on more grammar than on organisation and content and that senior learners valued feedback on organisation and content than junior learners did. However, the interview results showed that all the learners, senior and junior, reported that they liked feedback on content and organisation and they believe that these aspects are more important than grammar and vocabulary. The learners explained that their grammatical errors hinder them to express their ideas and thoughts, and their teachers focus on grammar and vocabulary because they think they are the most important features of writing. Therefore, the findings suggested that learners' preferences for the focus of feedback are influenced by learners' experiences. Furthermore, their preferences can also be influenced by teachers' practices.

Amrhein & Nassaji (2010) conducted a survey on 33 ELS learners and 31 ESL teachers investigating their beliefs and views towards corrective feedback focus. The results showed that most learners preferred feedback on writing conventions including grammar, punctuation, and spelling. Whereas, teachers thought that feedback should focus on all writing aspects including form, content and organisation. However, they took in consideration their learners' preferences when they provided them with corrective

feedback. This indicates that a teacher's ways of providing corrective feedback could be influenced by their learners' preferences.

Likewise, Lee (2008b) investigated 36 high proficient learners and 22 low proficient learners at secondary school. She reported that most low proficiency level learners wanted corrective feedback to focus on language errors, other than writing aspects like content and organisation. On the other hand, high proficiency level learners desired the teacher's feedback to focus on all writing aspects. Based on these observations, Lee (2008b: 158) concluded that "feedback informed by a flexible policy that takes into account students' abilities is more likely to help students develop interest, confidence, and self-esteem in writing than rigid policy that requires comprehensive error feedback across the board."

These findings demonstrate that learners' preferences of the focus of written corrective feedback are unpredictable. It is clear that learners' preferences regarding the focus of feedback can be influenced by their attitudes to writing. For instance, some learners think that their writing should not have any linguistic errors, as a result, they prefer their teacher's feedback to focus on the form rather than other writing aspects. It is also noticeable that learners' level of proficiency and experience may also affect learners' preferences towards feedback focus. It was illustrated that learners whose proficiency level is low prefer the focus of feedback on the form, this could be contributable to the fact that low level proficiency learners need to improve their grammar in order to write accurate sentences that help them to express their ideas and thoughts. In contrast, high level proficiency learners prefer feedback focus to be on the content and organisation as they have already learned a wide range of grammatical structures and vocabulary.

Furthermore, teachers' way of providing feedback appear to influence learners' preferences and attitudes towards feedback. For instance, some teachers' feedback focus is extensively on grammatical errors. This focus on the form could lead learners to think that grammar is the most significant part in writing. Consequently, they prefer to receive corrective feedback on their grammatical errors. Irrespective of these findings, researchers recommend corrective feedback should be provided to more than one draft and teachers' feedback focus should be on all aspects of writing (e.g., Fathman & Whalley, 1990; Hyland & Hyland, 2006a).

### 2.13.3. Comprehensive or Selective Corrective Feedback

Although some studies findings showed that focused corrective feedback helps learners to develop learners' accuracy of those selected errors and not commit these errors in their

future writing (e.g., Sheen, 2007; Ellis, et at., 2008; Bitchener, 2008; Bitchener & Knoch, 2009), other studies concerned learners' preferences of the type of feedback showed that learners prefer to receive comprehensive corrective feedback (e.g., Leki, 1991; Oladejo, 1993; Diab, 2005a; Lee, 2005; Zhu, 2010). For example, Leki (1991) investigated 100 ESL learners' preferences regarding corrective feedback. The findings showed that 70% of the learners prefer to have corrections on all of the errors they made in their writing. They preferred the comprehensive feedback methodology because they want to "perfect their English" (Leki, 1991: 204). Oladejo (1993) also examined 500 undergraduate ESL learners' views and attitudes and found that all learners preferred all errors to be corrected "in order to enhance their fluency and accuracy in the language" (Oladejo, 1993: 78). Diab (2005a) conducted a study on 156 EFL Arab learners to explore their preferences towards corrective feedback on first and final drafts. The findings revealed that most of the learners prefer to have corrections on all errors in their writing especially in the final draft.

Correspondingly, in Lee's (2005) study 320 EFL secondary school learners were investigated with regard to their views towards feedback. The results showed that 83% of the students preferred to receive comprehensive corrective feedback. They explained that their teachers underlined or circled all of their errors and they believed that this way helped them to know their errors and to avoid them in future writing. This implies that teachers' ways of providing corrections to their learners' errors could influence their attitudes and views to feedback. Similarly, Zhu (2010) conducted a survey on learners' attitudes toward error correction of 58 EFL learners. He reported that 70% of the learners wanted their teacher to correct all the errors in their writing, whereas, the rest of participants wanted their teacher to correct only the errors that hinder communication. They explained that having correction on all errors would lead them to lose confidence. Zhu, therefore, recommended teachers to use selective correction approach. However, Radecki and Swales (1988) noted that learners may lose their credibility in their teacher when they do not receive corrective feedback on all errors.

### 2.13.4. Direct or Indirect Corrective Feedback

Research on learners' preferences on the type of corrective feedback-direct and indirect-showed results based on ESL and EFL contexts. For instance, Leki's (1991) study showed that ESL learners preferred their errors to be corrected indirectly by indicating the errors and giving clues. Oladejo (1993) found that most ESL learners also preferred indirect

error correction approach. They explained that receiving comments and clues on their errors help them to be independent and self-correct their errors. Furthermore, Ferris and Roberts (2001) noted that ESL learners valued indirect feedback method by underlining and coding errors as these strategies develop learners' self-editing skills.

Lee (2005) found that learners preferred to receive direct corrections to their errors as they believed that this approach helps them correct their errors easily. They also preferred to have error codes because they are familiar with this way as their teacher frequently uses it to correct their errors. They also explained that error coding method helps them to correct their errors more effectively. Correspondingly, Diab's (2005a) study showed that most learners preferred their teacher to correct their errors by indicating them with some clues that help them to make corrections in the first draft. They also wanted their teacher to correct their final draft with direct corrective feedback. These results were attributed to the fact that learners' teacher often provides them with indirect correction on the first draft and direct correction on the final draft. Diab (2005a: 43) therefore, concluded that "these findings may indicate that teachers seem to be behaving according to students' preferences or, perhaps just likely, that students' preferences for teacher feedback reflect instructional practice."

The findings of these studies could suggest that SLA learners prefer indirect corrective feedback method, while EFL learners prefer providing them with direct method. This could be attributed to that fact that ESL classrooms are student-centred ones where learners are provided with indirect feedback, and they are encouraged to find the corrections themselves. This could reflect on their attitudes towards feedback. On the other hand, EFL classrooms are teacher-centred where the teacher provides direct feedback and learners rely on their teacher's corrections.

### 2.13.5. EFL and ESL Learners' Preferences

The previous mentioned research has been conducted in different contexts -EFL and ESL. Some similarities and differences were identified when comparing the findings of these studies. EFL and ESL learners value corrective feedback on their written work and think this method as a facilitative tool in developing their writing skills. They also appreciate teacher feedback more than other sources such as peer feedback and they think that their teacher is the only person who is responsible for providing corrective feedback on their work (e.g., Radecki & Swales, 1988; Saito, 1994; Ferris, 1995; Diab, 2005b; Hamouda, 2011).

In ESL and EFL contexts, furthermore, learners do not prefer to receive feedback from their classmates as they think that their peers are unable to provide valuable feedback and to suggest the reliable ways to correct their errors (e.g., Oladejo, 1993; Saito, 1994; Tsui & Ng, 2000; Hamouds, 2011). The learners' appreciation receiving corrective feedback on their writing texts from their teachers implies that teachers' corrective feedback facilitates them to improve their writing skills. For example, Zhu (2010) attributed the EFL learners' preferences for teachers' feedback to receiving feedback from their peer to the extensive use of teacher feedback in EFL context. Whereas, in ESL context, learners' preferences for teacher corrective feedback was connected to their previous experiences in the EFL contexts (e.g., Leki, 1991; Oladejo, 1993). Leki explained that ESL learners "did not have the opportunity to use peer responding and, therefore, did not believe it would work" (Leki, 1991: 209). Oladejo also clarified that ESL learners' preferences could be influenced by their culture, which presents peer feedback "as a sign of losing face" (Oladejo, 1993: 83).

It is clear that most ELS and ELF learners prefer to receive corrective feedback that focuses more on aspects such as grammar and vocabulary than on other aspects such as content and organisation (e.g., Leki, 1991; Saito, 1994; Engiarlar, 1993; Diab, 2006; Amrhein & Nassaji, 2010). The learners pay more attention to their writing accuracy than writing fluency, and they think that they should produce error-free texts (e.g., Leki, 1991; Chiang, 2004; Amrhein & Nassaji, 2010). Such findings might imply that the EFL teachers' extensive focus of their corrective feedback on language errors leads to form their learners' attitudes towards writing as well as towards feedback focus. However, Leki (1991: 204) clarified that "ESL students' previous training in English may impede their ability, or even willingness, to share their teachers' belief that rich content is more important than grammatical perfection." It seems that ESL learners' preferences for feedback focus could be shaped by their former learning experiences and training in their countries.

On the other hand, few studies showed that learners prefer corrective feedback focus to be on content and organisation rather than on linguistic errors (e.g., Radecki & Seales, 1988; Chiang, 2004; Lee, 2008). These studies indicated that factors such as learners' attitudes towards writing, their needs to develop their writing and their proficiency level affect their preferences for feedback focus. Chiang (2004) and Lee (2008a) conducted studies in EFL contexts and the findings showed that learners whose proficiency level is

high prefer feedback focus to be on content rather than on form, while the low proficiency level learners prefer feedback focuses on linguistic errors rather than content.

In addition, both EFL and ESL learners prefer major correction to all their errors (i.e., comprehensive corrective feedback method) (e.g., Leki, 1991; Oladejo, 1993; Diab, 2005b; Lee, 2005; Zhu, 2010). These findings attributed to the fact that all learners in different contexts ELS and EFL think that identifying their errors would help them to avoid repeating then in their future writing (e.g., Lee, 2005; Diab, 2005b). Furthermore, adopting the comprehensive method by teachers in both ELS and EFL contexts might form learners' preferences for this type of written corrective feedback (e.g., Leki, 1991; Lee, 2005). These findings contrast other researchers' suggestions that teachers should avoid providing comprehensive feedback as this method involves effort and time from teachers and it may also confuse and discourage learners (e.g., Raimes, 1983; Byrne, 1988; Ferris, 2002).

Regarding the type of feedback, EFL learners prefer to be provided with direct corrective method on their errors (e.g., Lee, 2005; Diab, 2005a), while ESL learners prefer indirect corrective feedback method (e.g., Leki, 1991; Oladejo, 1993; Ferris & Roberts, 2001). The findings indicated that EFL learners are more reliant on their teachers and this could be attributed to the fact that EFL classrooms are teacher-centred where the teachers are considered as a source of knowledge. Therefore, EFL learners rely on their teachers' corrections and use memorisation as a strategy for their learning. ESL classrooms are learner-centred context where learners prefer to receive indirect corrective feedback and be encouraged to self- correction.

To sum up, learners' preferences for corrective feedback can be influenced by different factors which including their previous learning experiences, their attitudes to writing, their needs to improve their writing skills, their level of proficiency and their teachers' ways of providing corrective feedback. Learners' preferences and attitudes towards written corrective feedback may affect the attention that they give to it. Learner surveys and interviews research on written CF has covered three major areas: (1) On what issues do learners perceive their teachers focus when providing feedback? (2) On what issues do learners think their teacher should focus when providing CF? (3) What are learners' specific preferences with regards to the form and choice of teacher-provided written CF? Most of the studies (in learners' eyes) suggested that writing teachers should focus their feedback heavily on grammar and language system concerns. Learners also reported their

preferences to receive feedback that covered range of concerns such as content, organisation, mechanics and vocabulary. They seemed to react positively to comprehensive feedback. There is no indication in any of the studies that learners refuse to have written CF and have less of it. On the contrary, it is fair to say that while learners feel appreciated when receiving their teachers' CF, they insist upon it being language focused and in fact would be severely discouraged by its absence. This may answer the question that has been raised primarily by Truscott (1996, 1999) is whether learner preferences should be considered in making decisions about written CF.

Learners have also been asked rather detailed questions about the type of written CF they prefer; whether they would like all of their errors marked, or only the most important ones; whether they prefer their teacher to correct all of their errors explicitly (direct correction), or they think it would be better if the teacher indicates where the errors have been made and ask the learners to correct their errors (indirect corrections). The answers of such enquiries are noticeably constant across a range of student populations: learners generally would like to receive comprehensive rather than selective correction, worrying that errors left uncorrected might affect their grades later. They like direct feedback on their errors because it involves less effort from them to deal with them. They, however, believe that indirect correction especially with some clues such as coding will facilitate them most in their writing in the long run.

### 2.13.6. Learners' Challenges when Processing Corrective Feedback

Some studies have considered the potential problems that learners may confront when dealing with corrective feedback. For instance, Chiang (2004) investigated senior and junior EFL learners and found that learners "did not understand the correction codes and symbols…, they could not see their teacher's handwriting…, they did not agree their teacher comments… students had difficulties understanding their teacher's hand writing …, students did not understand their teacher's comments about ideas and organisation" (Chiang, 2004: 104). The results also showed that there was no significant difference between the two different proficiency levels (i.e. senior and junior) regarding the difficulties faced them when dealing with feedback. Chiang (2004: 104) noted that "a higher percentage of junior students had difficulties understanding their teacher's handwriting, while more senior students did not understand their teacher's comments about ideas and organisation."

Zamel (1985) attempted to identify the challenges encountered by learners when processing teacher written feedback by descripting teachers' feedback. Zamel (1985: 79) described teachers' feedback as "confusing, arbitrary, and inaccessible" and recognised that teachers' corrective feedback characteristics are the main source of learners' misunderstanding of feedback. Correspondingly, Cohen and Cavalcanti (1990) noted that learners' lack of understanding of teachers' written feedback can be attributed to its nature "which is unclear, inaccurate, and unbalanced" (Cohen & Cavalcanti, 1990: 155). Leki (1992:122) found that "sometimes students are not sure exactly which part of their text a comment is addressed to. Sometimes the gist of the comment itself is unclear … Sometimes the comment seems inapplicable to the student."

Learners also may feel frustrated and become less motivated when their teacher's feedback "is illegible, cryptic (e.g., consisting of symbols, single-word questions, comments), or confusing (e.g., consisting of questions that are unclear, suggestions that are difficult to incorporate into emergent drafts)" (Ferris & Hedgcock, 2005: 188-189). Furthermore, indirect mitigated comments could be difficult to be understood by learners (Hyland & Hyland, 2001). Such challenges might reduce the efficacy of written corrective feedback.

These difficulties indicate that teachers are responsible for increasing the benefits of their written corrective feedback. Ferris and Hedgcock (2005) suggested that teachers should encourage their learners to communicate with them when they find difficulties in understanding corrective feedback.

Teachers also should consider their handwriting and ensure providing clear readable comments (Hahn, 1981), and use explicit direct corrective feedback and avoid utilising indirect one as the latter may confuse learners, especially those whose proficiency level is low (Hyland & Hyland, 2001). Teachers are also responsible for teaching their learners the error codes used in their feedback and should provide their learners with a list of these codes at the beginning of the course (Chiang, 2004).

The oral communication and discussion with the learners about corrective feedback can help to make feedback more productive. Teachers should discuss their techniques in providing feedback and encourage learners to ask questions regarding different features associated with their teacher's feedback (Zamel, 1995; Ferris, 1995; Chiang, 2004; Goldstein, 2005). Teachers have great responsibility for teaching their learners some strategies that aid them deal effectively with feedback. Hahn (1981: 9) stated that "the

student thinks that he/she can improve his/her writing, but he/she needs his/her teacher to give them strategies and solutions to overcome the mistakes he/she commits." Mack (2009: 36) added that "effective feedback assesses students' skills and gives them clear guidance to how can improve their essay."

### 2.13.7. Learners' Strategies in Processing Corrective Feedback

The strategies that learners employ to deal with teacher's corrective feedback have been investigated by several studies. For instance, Cohen and Cavalcanti (1990) examined 11 institute EFL learners, 13 FLE university learners and 19 L1 learners. The findings showed that all participants "frequently made a mental note of the teacher's comments, identified the points they need to discuss with the teacher, and asked the teacher about these points" (Cohen & Cavalcanti, 1990: 169). They also noted that learners rarely revise their previous essay to find corrections or/and rarely use a grammar book to understand their errors nature. Therefore, Cohen and Cavalcanti suggested that learners with different proficiency levels should be trained to employ other strategies such as "judicious use of revision, incorporating the teacher's comments…" (Cohen & Cavalcanti, 1990: 174).

Chiang (2004) also pointed to the strategies used by senior and junior participants in his study. He found that senior learners are more independent than junior learners are. Senior learners relied on themselves by operating strategies such as remembering their errors, checking dictionaries and consulting grammar books, whereas, junior learners constantly asked their peers and teachers for assisting them to correct their errors.

Ferris' (2006) study investigated different revision types applied by learners and the findings showed that when correcting their errors, 80% of learners substituted the text containing the errors and made a correct one, whereas, 10% of the learners revised their errors incorrectly the other 10% did not correct their errors. The findings imply that learners include their teachers' feedback on their revised texts.

In summary, the findings highlighted a number of strategies employed by learners to deal with their teachers' corrective feedback such as revising their texts, making mental notes, identifying aspects to be clarified, asking for teacher or/and classmate's help, revising previous work and corrections, using a grammar book and dictionaries. The research also showed inconsistent findings with respect to the effect of learners' level of proficiency on their strategies they apply to deal with corrective feedback. On one hand, results indicate that all learners use similar strategies regardless their proficiency level (Cohen

& Cavalcanti, 1990). On the other hand, Chiang (2004) noted that senior learners seem to depend more on themselves than junior learners.

## 2.14. Case Study Research on Written CF

Regardless of some limitations, one cannot deny that the recent corrective feedback research has been valuable for shifting our knowledge and pedagogy forward, that most of it has made great attention on groups of learners, most characteristically comparing two or more corrective feedback types throughout several different groups. Some of the studies mentioned in the previous sections were controlled quasi-experimental studies. These experimental demanding, and carefully designed studies have already enriched our knowledge and we have learned a great deal from them. However, it is also important to focus on individual learner responses and reactions to the corrections brought by written corrective feedback along with cross-group comparisons.

A number of researchers conducting their studies on teacher's response to learners' writing in general and corrective feedback in particular have consistently called for more focus on individual learner variables in investigations (e.g., Bitchener & Ferris, 2012; Ferris, 2006, 2010; Goldstein, 2005, 2006, 2010; Hyland & Hyland, 2006a; Storch & Wigglesworth, 2010). Furthermore, Flahive (2010) pointed out that there is a scarcity of the number of studies whose main focus is "individual differences" (p.135). Reynolds (2010) also noted that "individual differences… may serve as useful direction for future second language writing research" (167).

It is evident that the studies that interviewed and surveyed learners and teachers have attempted to individualise corrective feedback for different learners. Some researchers have used case study methodology to carefully investigate individual learners' responses to CF (e.g., Cohen & Robbins, 1976; Hyland, 2003; Qi & Lapkin, 2001; Storch & Wigglesworth, 2010). The learners in these studies participated in think-aloud and/ or retrospective interviews to discuss different issues such as their errors, their knowledge of the rules, their thought processes in grasping corrective feedback and their ways in making corrections. Therefore, these studies might be the mean to identify possible factors that might explain learners' variation in utilising corrective feedback.

Some researchers have used case study methodology effectively in their studies that investigate generally teachers' commentary whether written or spoken (e.g., Goldstein and Conrad, 1990; Patthey-Chavez and Ferris, 1997), those studies' data was collected from teacher- learner writing conferences in ESL context by investigating the conference

talk characteristics and their effect on learners' new texts (i.e. discussion on drafts of texts in conferences and new texts written after). There was no retrospective interview for the learners following the conference feedback session. However, only one study by Newkirk (1995) that was conducted in the L1 context of teacher/ learner conferences included a retrospective interview. The findings of these studies showed a clear difference between individual learners in their responses during the conferences; while some were passive and let the teachers do most of the talking, others were completely the opposite and were active in the discussion. These individual patterns in participation among learners in turn seemed to affect their ability to benefit from feedback and instruction.

Another body of studies also utilised case study methodology to investigate different issues regarding ESL learners' responses to corrective feedback. For instance, Fiona and Ken Hyland have examined the interpersonal relations between teachers and learners and how they may impact teachers' response actual practices and learners' applications of different types of corrective feedback (e.g., Hyland, 1998; Hyland & Hyland 2001, 2006b).These studies revealed similar findings to Conrad and Goldstein' (1999) study on conferencing corrective feedback that individual variations among learners in their willingness and ability to revise written corrective feedback they received from their teachers. As Conrad and Goldstein' (1999) study lacked a retrospective interview, they noted that "…in order to understand how students revise in response to written feedback, we must look not only at the nature of the comments themselves, but also … at individual factors affecting the students" (p. 147). Therefore, this study took after these studies in order to provide insights about how individual FL learners differently respond to their teacher's corrective feedback; identifying the factors that may affect learners when applying corrective feedback, they received on their writings such as their background of learning English and their corrective feedback past experiences. Furthermore, this study employed retrospective interviews to help learners reflect on their knowledge about errors and strategies for self- corrections, in addition to examining revised texts after corrective feedback provision and new texts written over time.

## 2.15. Research into CF Hypothetical Harmful Side-Effects

Section 2.7.3 explains the reasons for Truscott's (2004; 2007) objection against feedback in ESL writing classes. One of his objections was that CF may lead learners to avoid making errors by simplifying their writing. These concerns led Truscott to suggest that the accuracy reported in earlier correction research might be attributable to such

avoidance and simplified writing rather than to written CF. Truscott's suggestions are similar to those of attention limited capacity models that expect also non-exchange between accuracy and complexity (e.g., Skehan, 1998). According to these models, ESL learners' performance is predicted to be more complex when they are enthusiastic and feeling unrestricted to experiment with the target language. On the other hand, focusing on accuracy may lead learners to be more conservative in the way they focus their attention to control interlanguage elements by avoiding increasing their ESL range (Skehan & Foster, 2001).

Few studies have explored the effectiveness of written CF on linguistic complexity (e.g., Chandler, 2003; Robb et al., 1986; Sheppard, 1992) and they have not drawn any consistent conclusions. As in Sheppard's (1992) the findings reported that CF had a negative impact on learners' structural complexity, however, his findings were not statistically significant. By contrast, Robb et al., (1986) reported that CF positively influenced learners' written complexity, but this study was without a control group. Similarly, Chandler (2003) reported no effect of CF on learners' written complexity. Existing research, therefore, does not support Truscott's argument about simplification, but nor does it strongly undermine it. Another of Truscott's (1996; 2004) arguments against written corrective feedback was that CF cannot develop ESL learners' accuracy, instead of focusing on more productive aspects of writing instruction, learners waste their time and effort on CF. Truscott suggested that extra writing practice would be more beneficial to learners than correction. There is only one study which has examined this claim and it was by Sheen et al., (2009) who compared the effect of CF to those of writing practice. The findings revealed that learners did not benefit more from writing practice than from CF, which contradicted Truscott's claim.

## 2.16. Summary and Research Gaps

Looking at the empirical evidence presented in previous studies as well as that drawn from surveys and interview studies of different types on written corrective feedback as a whole, it is obvious that there has been a great interest in investigating the relative effectiveness of providing written CF in different ways but that definite conclusions are still somewhat evasive. Thus, there is a need for further research to explore the longitudinal effect of written corrective feedback targeting more complex structures. The present study, whose set-up, tasks, and procedure are presented in the following chapter

(Chapter 3) - aimed to add to the existing body of research by trying to consider some unsettled issues, and answering five research questions, which will be following.

Early empirical research found that comprehensive or unfocused CF helps learners to improve a piece of writing through revision (e.g. Ashwell, 2000; Fathman & Whalley, 1990; Ferris, 1997; Ferris & Roberts, 2001). Furthermore, there is growing evidence that focused CF has long-term effectiveness on language forms while other CF studies revealed that comprehensive or unfocused CF facilitates learners to develop a specific piece of writing through revision. Further empirical evidence is needed to explore the value of unfocused comprehensive CF for accuracy improvement or learning (e.g., Haswell, 1983; Ferris, 1995a; Chandler, 2003; Ferris, 2006; Foin and Lange, 2007; Ferris et al., 2010). Therefore, the present study aimed to investigate the value of comprehensive correction during revision, as well as its ability to develop and generate a long-term learning effect, by adopting the tightly controlled methodology of recent unfocused and focused CF studies (i.e. using pre-test, revision stage, immediate post-test and delayed post-test; and having experimental groups as well as control group)(e.g., Beuningen et al, 2008, 2012; Bitchener and Knoch, 2012b).The second issue on which corrective feedback research has not come to any clear conclusions, is the effectiveness of the common CF types- direct and indirect. The third issue is that very few studies have examined the potential harmful effects of CF (Truscott,1996; 2004). Hence, the present study tried to explore the relative effectiveness of the two methods and to examine whether comprehensive CF affects the lexical and structural complexity of learners' output and addressed the two research questions: (1) *How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity during revision?* 2) *How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity when producing new texts?*

In addition, to address Truscott's (2001; 2007) argument that CF might have value for non-grammatical errors, but not for grammatical errors, this study tried to test this claim by differentiating between grammatical and non-grammatical error categories. this study attempted to answer the following question: 3) *How effective is comprehensive written corrective feedback (direct & indirect) on grammatical and non-grammatical errors over time?*

Qualitative research with individual students can at least begin to fill in the gaps in explaining how learners process correction and how it enables them to write more accurately in subsequent papers (if they do). In the published literature, few studies have linked learner engagement with error correction feedback. Some studies (e.g. Cohen & Robbins, 1976; Hyland, 2003; Qi & Lapkin, 2001; Storch & Wigglesworth, 2010) have investigated only texts revised after teacher-student conferences feedback. The findings revealed that individual students react differently to teacher feedback and a number of other factors such as students' L1 background, attitude may affect students' when apply feedback they received. Two recent case studies (Ferris, 2013; Han & Hyland, 2015) have explored the impact of indirect focused feedback on learners' new tasks. Their findings concluded that looking at learners' texts in isolation cannot give researchers or teachers sufficient information about whether corrective feedback helps student writers improve (or does not). Despite the illuminating findings, it can be noted that there is gap in recent research related to careful consideration of individual learners' behaviour as they receive, process and apply feedback. Van Beuningen (2012) and Ferris (2013) called for further research considering individual student responses to written corrective feedback.

Therefore, the case study was employed as a response to recent call from scholars for more investigations that initially examine the individual differences as students receive, process, and apply corrective feedback (e.g., Ferris, 2006, 2010; Flahive, 2010; Goldstein, 2005, 2006, 2010; Hyland, 2003; Hyland & Hyland, 2006a; Reynolds, 2010). This multiple-case study seeks to investigate *4) How do EFL (Libyan) students apply direct and indirect comprehensive feedback to improve their writing accuracy?* And *5) What factors might enhance or hinder students to benefit from written corrective feedback?*

## 2.17. Concluding Remarks

In this chapter a review of previous work on written corrective feedback was discussed. It also addressed the important issues that have been considered by corrective feedback research such as how and when corrective feedback fosters SLA, the relative effectiveness of two types of corrective feedback- direct and indirect, factors mediating corrective feedback efficacy, and the potential negative side-effects of corrective feedback. Furthermore, the literature review chapter presents the core of this study, considering further issues such as the purpose of providing written corrective feedback, the focus of corrective feedback, the amount of corrective feedback, the explicitness of corrective

feedback, and the source of corrective feedback. A wide range of studies about learners' preferences and views have been analysed.

# Chapter 3. Methodology

## 3.1. Chapter Overview

This chapter presents the methodologies employed in this study. It starts with a description of the mixed research methodology – quantitative and qualitative- utilised to gather the data for this study. In addition, in this chapter a presentation of quasi-experiment, quantitative data processing, and statistical procedures is introduced. Then the case studies, its instruments, and its analysis procedures are discussed. Finally, the ethical issues are included in the end of the chapter.

## 3.2. Research Methodology

To explore the effectiveness of direct and indirect written corrective feedback in this study, I employed a methodology that enabled me to answer the research questions. The selection of research methodologies was based on the research studies that previously discussed in the literature review chapter (e.g., van Beuningen et al, 2008, 2012; Bitchener and Knoch, 2012b; Ferris, 2006, 2010; Flahive, 2010; Goldstein, 2005, 2006, 2010; Hyland, 2003; Hyland & Hyland, 2006a;). This research paradigm aims to investigate learners' written production by adopting quasi-experiment. This data was complemented by interviewing the participants to obtain deep detail about their experience of receiving corrective feedback; "One way to find out how learners acquire a second language and foreign language (L2/FL) is to study how they use it in production. Another way is asking them to report on their own learning" (Ellis and Barkhuizen 2016: 15).

The combination of both quantitative and qualitative methods for collecting and analysing data is defined as a mixed method approach (Johnson et al., 2007; Dornyei, 2007; Bryman, 2008; Creswell, 2014). It is a commonly used approach by social science researchers (Dornyei, 2007). Mixed method is also referred to as "…the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Johnson et al., 2007: 123).

Employing mixed methods is beneficial as the strengths of one method counterbalance weaknesses of the other (O'Leary, 2004; Dornyei, 2007; Bryman, 2008; Creswell, 2014). Employing two methods to gather and analyse data is better than using one method,

quantitative or qualitative alone (Johnson et al., 2007; Creswell & Clarke, 2007; Bazeley, 2004). Utilising mixed methods also helps researchers "to examine whether their findings converge, are inconsistent, or contradict" (Ary et al., 2009: 560). Furthermore, "a mixed method approach has a unique potential to produce evidence for the validity of research outcomes through convergence and corroboration of the findings" (Dornyei, 2007: 45). Besides, researchers utilise this method because "Triangulation seeks convergence, corroboration, correspondence of results from different methods" (Greene et al., 1989: 259).

Based on this fact, the present study employed a mixed methods approach to gain sufficient answers to the research questions of the present study. By this means the data was collected from the participants about the effectiveness of two types of written corrective feedback – direct and indirect- on their accuracy, structural complexity as well as vocabulary richness. Furthermore, this approach was employed to explore participants' ways of processing CF, difficulties when dealing with CF, and students' attitudes towards corrective feedback. Therefore, it was decided that this study would benefit from a triangulation of methods (i.e. quasi-experiment, interview & case study) and the complementarity of quantitative and the qualitative data.

## 3.3. Quantitative Method

Employing this method enabled me to gain data from a reasonable number of students. The quasi-experiment was used to examine the changes in error rates of the participants before and after receiving written corrective feedback. The comparisons took place among three groups: two experimental groups (i.e., direct feedback group and indirect feedback group) and the control group. The data gained from the experiment was employed to compare learners' accuracy differences over four time stages: before receiving feedback (i.e., on the pre-test stage) and while receiving corrective feedback (i.e., on the revision stage), after having corrections (i.e., on both the immediate pot-test and on the delayed post-test). The comparisons helped to determine whether there was a significant difference among the groups and within the groups in revised as well as in subsequent pieces of writing after receiving written corrective feedback on their errors.

### 3.3.1. Setting and Participants

The study took place in the department of English at Azzawia University, in Libya. The chief purpose of choosing this context is I was an assistant lecturer at the department of

English and I was familiar with the teaching and learning there, as well as having guaranteed access to the students and the staff. Furthermore, I am sponsored by Azzawia University to pursue my PhD study. Azzawia University always encourages the researchers who are usually staff members to conduct their studies at the departments of the University.

The population of this study was first year students in the department of English at Azzawia University, in which about 800 undergraduate students were studying. Students studying in the first year were divided into four groups. Each group contains 60 students. The convenience sampling was used by recruiting students studying English as a foreign language in the department of English. In L2/FL research, this kind of sampling is common and the most used, where "members of the target population are selected for the purpose of the study if they meet certain particular criteria, such as geographical proximity, availability at certain time, easy accessibility, or the willingness to volunteer" (Dornyei, 2007: 98-99).

### 3.3.2. The Administration of the Written Tasks

First year students from the department of English in Azzawia University took part in the study. Students required to study four years to acquire the Licentiate Degree in English Language ***(see 1.5 The Context of the Study)***. New students in the English department are assigned to a proficiency level after taking a standardized grammar, vocabulary, and writing test. Therefore, students were in the same class and were almost at the same EFL proficiency level. All of them are Libyan students, who are speakers of Arabic (L1). Their average age is 17-19 years. Furthermore, they are exposed to the same classroom activities and instructions.

At the beginning of the study, 180 students participated in the pre-test stage and then the number of the participants reduced over time due to security circumstances. In other words, some of the university students are from the neighbourhood towns of Azzawia and due to insecure situation, it was not easy for the students to attend their classes frequently. The number of the students who participated in all stages of the experiment (i.e., pre-test, revision, immediate post-test, and delayed post-test) was 60 students. Their writing papers were photocopied and the copies sent to me by the email and the original ones were returned to the students.

### 3.3.3. Treatments and Categories of the Errors

During my field study visit and before conducting the actual experiment, I asked the class teacher to ask her students to write a paragraph in order to identify the major errors the students committed in their writing. The class teacher along with another teacher and I decided the error categories that the teacher will consider when correcting students' errors during the experiment. These error categories were adapted from Ferris (2006), which is more concerned with lexical, morphological, and syntactic errors, for identifying learners' errors. Then we categorised the errors that were identified from students' writing. Furthermore, this study investigated the effectiveness of written corrective feedback on two types of errors, grammatical and non-grammatical errors; therefore, learners' errors were categorised into two types based on previous research (e.g. Aarts and Aarts, 1982; Ellis and Barkhuizen, 2005; Engber, 1995). The first was grammatical errors, which included tenses, prepositions, relative clauses, conjunctions, auxiliary verbs, word order, subject-verb agreement, determiner/article and singular/plural. The second category was non- grammatical errors which includes: spelling, punctuation and word choice. It is important to note that all the errors chosen to be corrected in this study were rule-based errors. ***Table 3.1*** below defines the categories of all errors and gives empirical examples from students' writing.

During the experiment, three different treatments were involved in this study; two experimental treatments: (a) direct corrective feedback, (b) indirect feedback, and one control group who received comments but not corrections **(see Appendices 1, 2, 3)**. The two experimental groups were provided with comprehensive corrective feedback on the tasks they wrote in the pre-test stage. Teachers who give corrective feedback usually try to develop the overall accuracy of their learners' written texts, not only the practise of one specific linguistic feature. Therefore, comprehensive feedback is considered as the most authentic to the actual practice of classroom teachers' feedback by some researchers (e.g., Anderson, 2010; Ferris, 2010; Hartshorn *et al.*, 2010; Storch, 2010). The control group received general comments on their writing performance but no correction for specific errors. All the treatments were provided by the class teacher. The error correction was revised by the two other American-Libyan teachers, who work in the department of English as writing teachers of other groups, with reference to error categories developed and based on Ferris' (2006) in order to ensure consistency in the marking and listed in ***Table 3.1.*** Previous body of research has revealed that teachers/researchers might opt to use different ways in providing corrective feedback (e.g., Ferris, 2006). To have one class

teacher providing all corrective feedback, thus "ensures greater consistency in treatment and […] enables assessment of effects of feedback without this potentially confounding variable" (p.93).

**Table 3-1 Error categories adapted from Ferris 2006**

| Grammatical Errors | Examples |
|---|---|
| ***Misuse of Quantifiers:*** *wrong use of many, much, a few, a lot of, a little.* | *Much people like reading in their free time.* |
| ***Subject -Verb Agreement:*** *wrong structure of subject-verb agreement.* | *Each person have some plans for his/her future.* |
| ***Incorrect Verb tenses:*** *wrong use of a tense.* | *When I am 17, I travel with my uncle.* |
| ***Verb phrase formation:*** *wrong structure of subject verb order.* | *In turkey, didn' they stay in a hotel.* |
| ***Determiner Use:*** *wrong use or missing of (a/an/the/this/ that, and zero article).* | *I will travel to the London to study.* |
| ***Wrong or Missing Preposition*** | *I didn't agree to them.* |
| ***Conjunction Use:*** *missing conjunction or wrong use of conjunction.* | *I had to choose studying medicine and English language.* |
| ***Singular/ Plural:*** *wrong use of singular or plural nouns* | *I dream to travel to different country to learn about their cultures.* |
| ***Possession: wrong or missing use of `s or of*** | *… to improve students's ability.*<br>*…in our house's garden.* |
| ***Word formation:*** *using of gerund and infinitive* | *She decided to made difference .*<br>*I feel comfortable after read it.* |
| ***Adjectives/adverbs:*** *wrong use of adjective and adverbs.* | *They drove fastly to reach the end.*<br>*The bigger decision in my life.* |
| ***Modal verb:***<br>*Wrong use of the verbs comes after modal verbs* | *I will to be careful about myself and my family.* |

| | |
|---|---|
| ***Pronouns:*** *wrong use of subject, object, possessive and relative pronouns* | *You help students when they have problems in our lesson.* |
| **Non-grammatical Errors** | **Examples** |
| **Punctuation:**<br>*Comma misuse within Clauses*<br>*Punctuation in Compound/ Complex Sentences*<br>*Closing Punctuation*<br>*Capitalisation* | *If I do not get married I will achieve more of my dreams.*<br>*I did something wrong to her and I apologised.*<br>*However I didn't understand her opinion.*<br>*I will take whatever to achieve it*<br>*i could travel to finish my study.* |
| **Contextual Spelling:**<br>*Misspelled Words* | *I hope to travil around the world.* |
| **Lexical errors:**<br>*Word choice; wrong use of a combination of words that would usually be use together.* | *I explained the lesson and I learned them how to speak.*<br>*I taught them how to speak.* |

### 3.3.4. Direct, Indirect Treatments and General Comments

While the direct corrective feedback was provided in the form of identifying the errors and giving their correct target form (example 1), indirect corrective feedback took the form of indicating the errors by circling them (example 2). Participants in the control group received comments such as in (example 3). The following ***Table 3-2*** presents the different treatments that were given to the students' during the experiment.

**Table 3-2 Examples about Direct, Indirect treatments and general comments forms**

| |
|---|
| ***Example 1: Direct corrective feedback on form related error***<br>***He teaches***<br>***he teach in a secondary school.*** |
| ***Example 2: Indirect feedback on form related error***<br>*When I was young I hope to study medicine.* |
| ***Example 3: General Comments***<br>*Your idea is clear, although you didn't write enough words.*<br>*Try to use more vocabulary to express your ideas more effectively.* |

### 3.3.5. Writing Tasks

All the tasks were part of the students' writing curriculum and were not designed particularly for this study. The tasks' topics were presented and clarified by the teacher, who also provided the corrective feedback treatments. All of the tasks were chosen without any particular reasons by the teacher and they were pen and paper assignments and they were of a similar type- write a paragraph(s) of 200-250 words on a given topic: The Pre-test topic was about "Future dreams", the Immediate post-test topic was about "a difficult decision", and the Delayed post-test topic was about "a Favourite book or film" ***(see Appendix 12)***. As writing performance can be influenced by students' proficiency, the level of knowledge about the topic, interest in, and familiarity with a particular topic (Benton, *et al.*, 1995; McCutchen, 1985), the teacher presented the topics and clarified them though a 15-minutes pre-writing lesson to ensure that all students had a sufficient understanding of the topic.

### 3.3.6. Experimental Set-Up

"Written samples are relatively permanent and, for this reason, easier to collect" (Ellis & Barkhuizen, 2016: 58). Learners' written samples were collected to check learners' accuracy in writing at the beginning of the experiment and aided to track their development at the end of the experiment. Following previous studies (e.g., Bitchener et al. 2005; Bitchener & Knoch 2009b; Van Beuningen et al., 2012) the experimental part of the study involved four stages: a pre-test stage, revision stage, immediate post-test stage, and delayed post-test stage as presented in ***Table 3.2***. The pre-test stage took place in week one (18 Oct 2015). During the first stage, all learners were instructed to write the first writing task (about their future dreams). The students were given 45 minutes to complete the writing task and were asked to write a 200-250-word paragraph. Before administering the first task, the teacher familiarised the task's topic by means of a 15-minute mini-lesson to confirm that students have a similar minimal amount of background information about the topic.

The learners were told that their key attention required to be on communication of content and linguistic accuracy as learners are known to adjust their assignment representations towards the task demands set by their teacher (Broekkamp, Van Hout-Wolters, Van den Bregh, & Rijlaarsdam, 2004). The teacher collected the students' papers and they were corrected by providing direct and indirect corrections to the experimental groups and general comments to the control group. The output of the first writing served as a baseline measure of learners' written accuracy and structural complexity and lexical diversity. The revision stage took place in week 2 (25 Oct 2015). Each student was provided with different types of corrective feedback treatments- direct, indirect and no correction, but little comments (i.e., general comments). During the revision stage, the students were asked to review their initial texts they wrote on the pre-test stage. They were allocated 30 minutes to rewrite the same task afterwards. In the third and fourth stages, all students were asked to write the post-test task in week 3 (01 Nov 2015) and delayed post-test task in week 8 (06 Dec 2015). During both post-tests, all students were given 45 minutes to produce a text on a new topic, which was again introduced by the teacher. The experiment was designed in this form to measure the accuracy in revision and new pieces of writing. In order to measure the effectiveness of corrective feedback, an immediate post-test needed to be administered so that the effect of other variables between the treatment and a new piece of writing could be eliminated. If a post-test was to be a valid measurement of progress, a comparable pre-test needed to be included in the research design. To

measure retention over time, delayed post-tests needed to be incorporated into the design. In doing so, it was not possible to eliminate the effect of intervening variables between an immediate post-test and a delayed post-test (for example, students may access further instruction or undergo further practice outside of class time), but a delayed post-test can be used to measure the level of retention that was observed in an immediate post-test.

At the end of the experiment, all of the students' written work was photocopied and sent to me afterwards via email in February 2016. The class teacher corrected the other tasks on students' copies in the same way she did with the pre-test task and sent them to me.

**Table 3-3 Experiment Stages**

| **Pre-test Week 1** | **Revision Stage Week 2** | | | **Immediate Post-test Week 3** | **Delayed Post-test Week 8** |
|---|---|---|---|---|---|
| Initial writing task (Future dreams) | Direct CF | Revision | Rewrite the same topic | Subsequent writing task2 (Difficult decision) | Subsequent writing task3 (Favourite book/film) |
| | Indirect CF | Revision | Rewrite the same topic | | |
| | General Comments | Revision | Rewrite the same topic | | |

### 3.3.7. Quantitative Data Processing

The class teacher highlighted the errors in students' pre-task, revision, immediate post-test and delayed post-test copies with reference to error categories developed and based on Ferris' (2006) and listed in ***Table 3.1.*** In order to ensure accuracy and consistency in the marking and coding, the error corrections were revised by the two other American-Libyan teachers, who work in the department of English as writing teachers of other groups. Then the students' scripts were sent to me via my personal email. All of the students' handwritten output was transcribed to a word processor document and coded for grammatical errors, non-grammatical errors and clause types (i.e., main clause and subordinate clause) ***(see appendices 1, 2, 3 & 4 for samples of students hand written texts and transcribed word processor document)***. The length of the students' texts ranged from between 52-266 words as shown in ***Table 4.14***. The coding process has been checked by a British-Libyan teacher with a PhD from Sheffield University in order to establish interrater coding reliability. Then all of the data was transferred into Excel spread sheets

and manually was categorised into grammatical, non-grammatical, and clause types for each student's work over-time (pre-test, revision, immediate post-test and delayed post-test), and all the codes checked and revised again by a British-Libyan teacher with a PhD from Sheffield University to make sure that the calculations were accurate ***(see Appendix 6, 7, 8 &9)***.

#### 3.3.7.1. Linguistic Accuracy Measures for the Dependent Variables

The question that is considered as the heart of much research in applied linguistics and second language acquisition: what makes a second or foreign language user a more or less proficient language user? Several researchers and language practitioners consider that the paradigms of L2 performance and L2 proficiency are multi-componential in nature, and that their principal dimensions can be adequately, and comprehensively, captured by the notions of accuracy, as well as by complexity and fluency (Skehan 1998; Ellis 2003, 2008; Ellis and Barkhuizen 2005).

Some evidence suggests that accuracy is primarily linked to the current state of the learner's explicit and implicit interlanguage knowledge (L2 rules and lexico-formulaic knowledge: accuracy is viewed as "the conformity of second language knowledge to target language norms" (Wolfe-Quintero et al., 1998: 4). It is also referring to the degree of deviancy from particular norm (Hammerly, 1991; Wolfe-Quintero et al., 1998). Therefore, errors are characterised as deviations from the norm. However, this characterisation may raise the issue of evaluating accuracy criteria and error identification, considering whether these criteria should be adjusted to meet standard norms (as used by an ideal native speaker of the target language) or to non-standard and even non-native usages acceptable in some social contexts or in some communities (Polio, 1997; James, 1998; Ellis, 2008).

Accuracy has been figured as major research valuable in applied linguistic research. It has been used both as a performance descriptor for the oral and written assessment of language learners as well as indicator of learner's proficiency underlining it's performance; it has also been used for measuring progress in language learning. A review of literature suggested that accuracy-oriented activities are the ones which focus on linguistic form and on the controlled production pf grammatically correct linguistic structures in the L2 and FL (Brumfit, 1984). Therefore, accuracy has been commonly characterised as the ability to produce error free (oral/written) production (Ellis 2003:340).

Accuracy can be referred to as "how well the target language is produced in relation to the rule system "of the target language" (Skehan, 1996: 23). It is also considered as "the ability to be free from errors while using language to communicate in either writing or speech" (Wolf-Quintero et al., 1998: 33) and as "freedom from error" (Skehan & Foster, 1999). Accuracy analysis in writing needs identifying the number of errors in a written text. Accuracy can be found by "counting the errors in a text in some fashion" (Wolf-Quintero et al., 1998: 33). There are different approaches used by researchers to analyse writing accuracy based on error analysis such as a percentage of error-free clauses or the number of errors per 100 words, which are able to provide measures of learners' grammatical and lexical ability to perform accurately in the L2 (Ellis & Barkhuizen, 2016). It was suggested that "a generalised measure of accuracy is more sensitive to detecting differences between experimental conditions" (Skehan and Foster, 1999: 229). To utilise such methods, it is suggested that it would be necessary to take account of all errors when the researcher's interest is in a learner's ability to spontaneously produce correct language. Furthermore, the identification of what constitutes an error would be important in employing accuracy measure approaches.

Many researchers (e.g., Henry, 1996; Hirano, 1991; Homburg, 1984; Larsen & Freeman, 1978, 1983; Sharma, 1980) have utilised different categories of what determines an error, and in several cases, researchers' choices are controlled by their preference (Wolf-Quintero et al., 1998: 35). While some studies (e.g., Henry 1996; Larsen & Freeman, 1978, 1983) accounted all morphological, syntactic, vocabulary, spelling and punctuation faults as errors, other studies considered all errors apart from punctuation (e.g., Homburg, 1984). There are also other studies that considered only morphological, and syntactic errors (e.g., Scott & Tucker, 1974), whereas, other studies counted both morphological, syntactic and lexical errors (Vann, 1979; Arnaud, 1992). The present study followed Ferris' (2006) error categories, which is more concerned with lexical, morphological, and syntactic errors, for identifying learners' errors.

With regards to the overall accuracy, earlier studies used the number of errors in a written text. For instance, Fischer (1984) calculated the number of errors that occur in a written text (grammatical and vocabulary) per clause, whereas, Zhan (1987) counted the number of errors per 100 words. Others counted all grammatical, vocabulary and syntactic errors at sentence level (e.g., Kepner, 1991). Therefore, I followed some studies that used error

ratio to measure overall accuracy "the more common global measures": [number of linguistic errors/ total number of words] x 10 (e.g., Chandler, 2003; Truscott & Hsu, 2008). A 10-word ratio was used instead of the more common 100-word ratio because students' writing was relatively short (i.e., the average length of students' writing was 52-266 words) ***(see Table 4.14)***. In order to investigate Truscott's (2001, 2007) claim that non-grammatical errors are probably more responsive to correction than grammatical errors, the measure of overall accuracy was broken down into a measure of grammatical accuracy and a measure of non-grammatical accuracy (i.e., [Number of grammatical errors/ total number of words] x 10). The grammatical measure was a ratio calculated by the counting the number of errors in grammatical categories which are listed below:

- *Misuse of Quantifiers*
- *Incorrect Verb tenses*
- *Subject -Verb Agreement*
- *Verb phrase formation*
- *Determiner Use*
- *Wrong or Missing Preposition*
- *Conjunction Use*
- *Singular/ Plural*
- *Possession*
- *Word formation*
- *Adjectives/adverbs*
- *Modal verb*
- *Pronouns*

On the other hand, non-grammatical accuracy ratio (i.e., [number of non-grammatical errors/ total number of word] x 10) measured by counting the number of non-grammatical errors including the following:

- *Spelling*
- *Punctuation (i.e., Capitalisation, Comma use, Punctuation in compound / complex sentences, Closing punctuation)*
- *Word Choice*

One of the reasons can be given for focusing attention on linguistic accuracy in writing classes at the university of Azzawia is that the focus on forms and grammar is an important part of their curriculum. The students know that written accuracy is expected in academic writing. After completing their studies, students will be often keen to find employment in context where English is the medium of communications and where know that accuracy is one of the skills they need to possess if they are going to succeed.

The structural complexity is "the extent to which learners produce elaborated language" (Ellis and Barkhuizen, 2016: 139). To consider language elaboration Skehan (2001) suggested that "learners vary in their willingness to use more challenging and difficult language." Language that is at the high level of students' interlanguage system, and thereby is not totally "automated". In this case it can be assumed more complex than language that has been totally "internalised". Furthermore, complexity can be considered as the students' willingness to utilise a great number of different structures. The complexity will thus depend on learners' readiness to take risks and test linguistically throughout the use of more complex structures in their written texts. To measure the structural complexity Homburg (1980) counted the dependant clauses and all types of connectors, while Karmeen (1979) counted passive, dependant clauses, adverbial clauses, adjective clauses and nominal clauses and Sharma (1980) counted all prepositional phrases, adjective clauses and pre-posed adjectives. Foster and Skehan (1996) measured the structural complexity by the amount of subordination. In other words, they counted it by the number of separate clauses divided by the total number of clauses. Thus, the structural complexity in this study was measured by using the number of subordinate clauses / total number of clauses] x 100 (Norris & Ortega, 2009; Wolfe Quintero, Inagaki & Kim, 1998).

Finally, Wolfe-Quintero et al., (1998: 101) considered lexical richness when there is accessibility of "a wide variety of basic and sophisticated words." It was measured using ***a type/ token ratio***, which means "the ratio of word types to total words" (Wolfe-Quintero et al., (1998: 101). The types are the total number of different words occurring in a text while the tokens are the total number of words. The high ***type/ token ratio*** indicates a high degree of lexical variation. This study employed a ***type/token ratio*** to measure lexical diversity, which can be "calculated by counting the total number of word types and dividing it by the total number of tokens" (Laufer & Nation, 1995: 310).

#### 3.3.7.2. Statistical Procedures

These calculations formed the dataset that was used in the statistical analysis programme ***(see Appendix 10)***. To prepare the data file for statistical analysis requires a number of steps. First of all, entering the information gained for the data and defined by codes (Pallant, 2014). The codes were created from the previous calculations, for instance, the results of the arithmetical equation for the grammatical accuracy during the pre-test were

included under the code ‘pre-test grammatical accuracy’. Then a revision was needed to check the data file and ensure that it is error free. Moreover, it is important for the researchers to select which statistical calculation that has to be used (i.e. SPSS) (ibid). The type of data controls the type of statistics which will be used to analyse the data set (Lowie & Seton, 2013). IBM SPSS VERSION 24 programme was used to statistically analyse the data set of this study. “The choice of the statistics relies on the number and the type of variables as well as on the relationship between the variables” (Lowie & Seton, 2013: 22). Firstly, the identification of the research variables was achieved (i.e. dependent and independent). While dependent variables are the variables which can be tested and measured in an experiment, the independent ones are variables that have the effect on the dependent ones (Lowie & Seton, 2013). Accordingly, the data was identified and classified into five dependent variables (the variables that are measured), which were namely overall accuracy, grammatical accuracy, non-grammatical accuracy, structural complexity, and lexical diversity; and into two independent variables (the variables that are manipulated), which are time and two types of corrective feedback- direct and indirect (Lowie & Seton, 2013).

As this study data set had interval and ratio variables, parametric tests such as t-test, or an ANOVA were needed to be employed for the analysis. The parametric tests are considered to have statistical power (Lowie & Seton, 2013; Pallant, 2014). According to Lowie and Seton, (2013) the parametric tests are very restrictive and require a number of assumptions before applying them. Therefore, the data set went through some important tests to check particular assumptions preceding the application of the Analysis of Variance (ANOVA) which is one type of the parametric tests. Checking the assumptions for this study included tests of normal distribution, as well as the tests of Sphericity (Lowie & Seton, 2013; Pallant, 2014). Most parametric tests require data to be drawn from an approximately normal distribution. The normality test was used to determine that the population had been drawn from a normal distribution. A mixed-design analysis of variance model which also recognised as a split-plot design (SPANOVA) requires this assumption to be satisfied. If the assumption of normality is not valid, the parametric tests outcomes will be unreliable. Due to the small number of the study participants, the Kolmogorov-Smirnov test and the Shapiro-Wilk’s ***W*** test were appropriate for this data set size (Lowie & Seton, 2013). This assessed the normality distribution of scores, where a non-significant result (sig. value of more than .05) indicates normality (Pallant, 2014). ***Appendix 8*** shows that the null hypothesis (i.e. if the population was normally distributed)

was retained, as the level of significance was p > .05, which means the data was approximately normal distributed and the ANOVA parametric tests can be performed.

The other required assumption for SPANOVA is Sphericity assumption, which is the condition where null hypothesis is the variances of the differences between all combinations of related groups are equal (i.e., no difference within and between variables). Thus, Mauchly's test was utilised in which the null hypothesis was rejected when ***p value*** was < *.05*. This means that the assumption of Sphericity was met for the data set of this study. Not violating this assumption means that the ***F- statistic*** is valid and can be used to determine statistical significance. However, if data violate the Sphericity assumption, the degrees of freedom are simply adjusted for the effect by multiplying it by one of the Sphericity estimates such as Greenhouse-Geisser. This adjustment tool could make the degrees of freedom smaller, then the ***value F*** becomes more conservative (Lowie & Seton, 2013; Pallant, 2014).

The SPANOVA was used to test for between- group differences on the different dependent variables (i.e., overall accuracy, grammatical accuracy, non- grammatical accuracy, structural complexity, and lexical diversity) on the revision stage, immediate post-test stage and delayed post-test stage. In other words, SPANOVA was applied to determine whether any changes in students' overall accuracy, grammatical accuracy, non-grammatical accuracy, structural complexity, and lexical diversity (i.e. the dependent variables) were the result of the interaction between the types of corrective feedback (direct and indirect). While group condition (i.e., direct, indirect and control groups) formed the "between-subject factor", the four-time stages (pre-rest, revision, immediate post-test, and delayed post-test) were the conditions presented the "within-subject factor". It is important to realize that SPANOVA model is an omnibus test for statistics that only tells whether there is a difference but cannot tell which specific groups within each factor were significantly different from each other. Running a post hoc test, therefore, was to determine where the difference was located, compare the difference between all the levels of the independent variables and correct for capitalisation of chance by applying so-called *Bonferroni Correction*. The adjustment of *'Bonferroni Correction'* is made to P values when a number of dependent and independent statistical tests are performed simultaneously on data set. This correction is used to decrease the opportunities of obtaining false-positive results when multiple pair wise tests were performed on the data set. Finally, the difference between groups was quantified by measuring the effect size

*"Cohen's d"* using the differences in means and standard deviations of the compared group (Lowie & Seton, 2013; Pallant, 2014).

### 3.3.8. Qualitative Method

"Qualitative research can be constructed as a research strategy that usually emphasises words rather than quantification in the collection and analysis of data" (Bryman, 2008: 36). It "allows for the collection of data that is rich in description of people, the investigation of topics in context, and an understanding of behaviour from the participants' own frame of reference" (Bogan & Biken, 1998: 10). It provides the opportunity to the participants "to talk about a topic in their own words, free of constraints imposed by fixed-response questions that are generally seen in quantitative studies" (Guest et al., 2013: 11). This approach "involves an interpretative, naturalistic approach to the world, this means that qualitative researchers study things in their natural settings, or to interpret phenomena in terms of the meaning people bring to them" (Denzin & Lincoln, 2005: 3). Employing this methodology enables researchers "to answer whys and hows of human behaviour, opinion, and experience information" (Guest et al., 2013: 11).

A qualitative method was utilised in the present study through case studies to obtain thorough, meaningful, valuable data about learners' experiences, strategies, beliefs, attitudes and other contextual factors that influence students' perceptions of corrective feedback. This method also enabled learners to express their preferences for the different aspects associated with written corrective feedback, to explain their accounts for these preferences, and to talk about difficulties they faced when processing feedback.

The case study employed semi-structured retrospective interviews as an instrument for data collection to explore the issues raised in the research questions: (1) to make explicit the strategies and the process students used to apply corrective feedback in revision texts and in subsequent texts, and (2) to discover the factors that might facilitate or restrict their progress in applying feedback. The interview questions enclosed various issues, such as learners' backgrounds, their feelings about their own writing; their opinions and attitudes towards error corrective feedback, and their future advice to teachers in writing class.

### 3.3.9. Case Study

Case study, as defined by Johnson and Christensen (2000: 376), is "research that provides a detailed account and analysis of one or more cases." Furthermore, it is referred to as the "most widely used approach to qualitative research in education" (Gall, Gall & Borg, and

2003: 433). Case study methodology is also referred to as a method and or a strategy, and a result of research: “the qualitative case study can be defined in terms of the process of actually carrying out the investigation, the unit of analysis (the bounded system, the case), or the end product” (Merriam, 1998: 34). In this study, case study methodology was “the end product” as it was preceded by the quasi-experiment, and was utilised to help interpret, sort and adapt findings to convey clarity to the experiment results. In other words, case study employed after the quasi-experiment and helped me to generate inductive reasoning and interpret students’ corrective feedback experiences reflecting on the experimental results.

Case study has been applied in this research for different reasons. Firstly, case study data is solid in authenticity because it offers instances of students in their real classroom. Consequently, this enables the researcher to understand the notions in a clearer way rather than explained them from theoretical perspectives (McDonough & McDonough, 1997). Secondly, it concentrates on individuals and their grasping of events because it uses an interpretation strategy in “seeing the situation thorough the eyes of participants” (Cohen et al., 2007: 253). Thirdly, a case study methodology tries to document the study and offers comprehensive information that can help to take an action by suggesting “solutions or providing practical implications” (Freebody, 2003). Finally, Punch (2009) noted that the case study can provide an understanding of the significant features of the research area and conceptualise them for further study. A qualitative case study was employed because it enabled me to get closer to the participants and ask them questions, listen to their answers, adapt to unforeseen circumstances that might arise, and understand carefully each student’s response when processing written corrective feedback in their real context. It also provided me with the opportunities to explore the participants who only can give real and accurate information about their experiences and beliefs that associated to this research questions.

The types of case study are categorised based on their chief purpose such as exploratory case study, by which a researcher focuses on determining the questions and hypotheses of a subsequent study or on defining the possibility of the chosen research procedures. The descriptive case study provides an abundant description of a phenomenon inside its context. Finally, the explanatory case study provides information focuses on case-effect relationships- clarifying how events occurred (Yin, 2003b: 5). The purpose of the case study employed in this study was to explain how the students process the different types

of corrective feedback and to explore the factors that facilitate and hinder the learners when dealing with corrective feedback to gain clearer picture.

"Case studies have a number of characteristics that make them attractive" (Duff, 2010: 43). The cases that are well-designed may have a great level of completeness, depth of analysis, and reliability. They also could create new hypotheses, models, and awareness about "the nature of language learning and other process" (Duff, 2010: 43). The most common case study in applied linguistics is single-case or multiple cases (Duff, 2008). Furthermore, Stake (1995) divided the types of case study into three types: intrinsic case studies, where the researcher conducts them in order to understand a particular case in question; instrumental case studies, where the researcher examines a specific case to obtain understanding into an issue or theory; collective case studies, are a group of individual cases are explored to obtain a fuller picture. It is significant that researchers should carefully select the sample of their cases (Duff, 2008). This study can be described as a collective case study as this methodology includes several cases in order to understand more about the phenomenon as well as about the participants. The instrumental case study that consists of a number of cases to explore the participants and learn about them has been called the multiple case study, which its findings are considered to be more convincing than a single case (Yin, 2003). The current case study had five participants who were selected to be multiple case studies that would provide a clear picture on learners' strategies, difficulties, experiences and attitudes regarding written corrective feedback.

#### 3.3.9.1. The Interview

The case study employed the interview as an effective tool because it helped me as a researcher to explore learners' responses and strategies and challenges when processing corrective feedback, their previous and recent experiences of writing and feedback, their preferences and attitude toward different types of corrective feedback, and other contextual factors which influenced their perceptions of corrective feedback.

Within a qualitative methodology there are three main types of interview: structured interview, semi-structured interview, and unstructured interview (Nunan, 1992; May, 1997; Patton, 2002; Dornyei, 2007; Newby, 2010). The distinction between the interview types is that the structured interview questions are organised in advance, and the interviewer is obliged to ask, "the same pre-prepared questions in the same sequence". The unstructured interview does not have pre-prepared questions, but during the interview

course, the interviewer has the freedom to change the questions linked to the research themes and to the emerging issues from the interviewees talk. On the other hand, the semi-structured interview (the interview guide/ outline) is not fixed like the structured interview and not free like the unstructured interview (Nunan, 1992; Patton, 2002; O'Leary, 2004; Donrnyei, 2007; Newby, 2010). Semi-structured interview "provides topics or subject areas within which the interviewer is free to explore, probe, and ask questions that will elucidate and illuminate that particular subject. Thus, the interviewer remains free to build a conversation within a particular subject area" (Patton, 2002: 343).

The semi-structured interview was the instrument for gathering the data required in case study quantitative methodology. The selection of this type of interview was based on the awareness that it would aid collect in-depth data associated to the issues examined in this study (Cohen et al., 2007). It would also aid to explore issues beyond the answers of the participants by asking questions about the emerging opinions and thoughts during the interview (Nunan, 1992; May, 1997; Dornyei, 2007; Bryman, 2008). In order to obtain in-depth data about the examined issues for this study, guided questions were prepared ***(see appendices 10, 11, for learner's interview guides)***. These interview guides included open ended questions to allow "the respondents to say what they think and to do so with great richness and spontaneity" (Oppenheim, 1992: 81). The questions were in Arabic to make sure they were clear and comprehensible by the interviews. They were also not evaluative and focused on the issues explored in this study (Cohen, et al., 2007; Dornyei, 2007). These guided questions referred back to the research questions of the study, outlined major areas of knowledge that are relevant to answering these questions such as how students acted during the revision, how students responded to the type of feedback they received, what difficulties students faced, what strategies they used to deal with the corrective feedback and how students corrected their errors.

These questions were developed within each area of these major issues, shaping them to fit particular kinds of respondents. Question development enabled me to elicit more detailed and elaborate responses to key questions. The main aim was to tap into their experiences and expertise. The use of semi-structured interview was valuable to generate data from students that cannot be gathered by the experiment. It was also beneficial for searching and following up the responses of the participants as well as understanding the issues and ideas raised by interviewees by asking them for more explanation to their answers (May, 1997; Dornyei, 2007).

#### 3.3.9.2. The Interview Piloting

Conducting the pilot interviews was done to confirm that the interview questions were clear, to examine whether the responses to the questions offer the essential data or not, and to prepare for unanticipated events (Nunan, 1992; Dornyei, 2007). The question guidelines of the interview were discussed with my supervisor to decide whether they included all issues examined in the study or not and determine to what extent they were clear and accurate. The respondents of the interview questions were similar to the target population. Three of them were PhD students who study in the UK, and they were teachers of English in Libyan universities. Furthermore, two students who studied in the English department in Azzawia University were interviewed via phone before carrying out the actual interview. The data gathered from the two students' interviews were included in the data set. The process of piloting the interview was beneficial in terms of identifying the words, sentences and terms that were misunderstood by the participants such as direct corrective feedback and indirect one, pre-test, immediate post-test and delayed post-test. Although the interview was in Arabic, it was not easy to convey these terms to the interviewees. As a result of the interview pilot, some adjustments were applied in the actual interview questions.

#### 3.3.9.3. The Interview Procedures

All nine interview participants were selected from the experimental cohort. For each group I selected three students: three students who received direct CF, three from indirect CF, and three students who received no feedback. The participants satisfied the following criteria: (i) students whose pre-test contained errors within a variety of different types of errors; (ii) students whose error rate increased between pre-test and post-test; (iii) students whose error rate decreased between pre-test and post-test; (iv) students whose error rate did not change between pre-test and post-test. These criteria were chosen to explore whether written corrective feedback played a role in the changes occurred in students' error rates overtime, and if not, what other factors attributed to this. Before arranging the interviews, the marked errors were charted for each text. The marked text and error charts were sent to each student and were available for discussing them with the participants during the interviews. The sources of data used in the interviews included the files that were created for each participant of the nine students that included their pre-test, revised pre-test, immediate post-test, delayed post-test drafts, and their progress charts.

Before conducting the interview, each participant was asked to sign a consent form showing that he/she agreed to participate in the interview. My original intention was to interview the participants face to face, but due to obstacles including the heightened state of the security situation in Libya, I was unable to go in person, and instead I interviewed the nine participants by using an internet phone application. All the participants of the study were informed about the interviews and happily provided their contact numbers to the teacher. I called the nine participants to make sure they were available. The interviews were piloted with two students ***(see 3.4.1.2)*** to examine the connection and other technical issues such as sound recording, time, and their voice. I first introduced myself to create a friendly atmosphere and explained to them the nature and the aims of the study. In addition, each participant was told that he/she had the right to stop the interview whenever they felt uncomfortable. Moreover, I obtained permission to audio record the interview, and students were informed that all the data gained from the interview would be treated confidentially and used for research study purposes only (Flick, 2007; Dornyei, 2007). The participants were interviewed in Arabic as this enabled them to answer the interview questions in depth. All nine students were interviewed, and each interview ranged from 45 to 60 minutes long. All of the interviews were audio-recorded, and I took on the spot notes. Then the data was organised by creating a file, anonymously named for each participant and stored in my computer (Dornyei, 2007).

## 3.3.10. Case Study Analysis Procedures

The type of case study employed in this study is multiple case study. This type of case studies requires two stages of analysis: *across case analysis* and *within case analysis.* For the data set obtained from the interviews, I started with the cross-case analysis by attempting to provide general explanations that fitted the individual cases. In within case analysis, I treated each case individually. The analysis process has been performed in depth and I followed four main steps: I organised and prepared the data and became more familiar with it, codes were developed, then categories and concepts were created, and finally, I interpreted the themes and reported them (Cohen et al., 2007). It is essential to mention that the analysis process did not happen in a direct form and there was some "back and forth movement between the steps" (Lodico, et. al., 2006: 302).

### 3.3.10.1. Across Case Analysis

A cross case analysis was used to generalise the learners' strategies, their views on written corrective feedback and how they deal with problems they faced when processing

feedback. The interview data analysis proceeded trough different phases such as organising data, data familiarisation (i.e. data transcribing, data translation, reading and rereading transcriptions), generating codes and coding the data, identifying themes and reviewing them, and displaying and presenting the data (Braun & Clark, 2006; Gibbs, 2007; Kvale, 2009; Rubin & Rubin, 2012; Creswell, 2014). This study followed the same phases to analyse the interview data.

For the data organisation, the audio-recordings of the interviews with the participants were organised by creating files for each student in my computer. The participants' names were anonymised by labelling them according to their groups of feedback type and numbering according to their performance during the experiment. For instance, ***DS1*** referred to a student from the direct group who showed the biggest improvement in error rates over time in the group. ***DS2*** referred to a student from the direct group who did not show any change in error rates over time in the group. Finally, **DS3** referred to a student from direct group who showed the smallest improvement in error rate over time in the group (Gibbs, 2007). This data was carefully stored in my computer.

"By transcription the direct face-to-face conversation becomes abstracted and fixed into a written form" (Flick, 2007: 92). Therefore, following the audio-recording of the interviews, the data was transcribed verbatim into written form. During this stage, I listened to the audio data recorded from each interview carefully and I repeated that more than once, to make sure that the interviews' written transcriptions corresponded accurately the actual words, phrases and sentences of the participants (Rubin & Rubin, 2012). Furthermore, the transcripts were revised and checked back against the audio recording data to ensure the accuracy (Braun & Clarke, 2006; Rubin & Rubin, 2012). After transcribing the interviews in Arabic, they were translated into English. The process of transcribing interviews data consumes a lot of time and effort (Gibbs, 2007; Creswell, 2014). However, it enables the researcher to become familiar with the data, and to start the initial stages of the analysis process, which he/she starts searching for the meaning and patterns in the data (Braun & Clarke, 2006; Gibbs, 2007; Flick, 2007). All the transcripts were filed and stored in word documents, which were anonymously labelled according to their groups of feedback type, DS1 referred to a student from the direct group whose error rates is the best developed in the group, DS2 referred to a student from the direct group whose error rates do not change over time, and DS3 referred to a student from direct group whose error rate become worse over time (Gibbs, 2007).

It is important for qualitative researchers to immerse themselves in the data and become familiar with its content by reading the data more than once (Maxwell, 2005; Braun & Clarke, 2006; Creswell, 2014). The transcripts were read a couple of times, and at the same time notes were created about main issues, a sense of embedded different topics was developed, and the ideas and thoughts were written. These activities make the researchers conscious of the data content and assist them "to develop tentative ideas about categories and relationships" (Maxwell, 2005: 96).

After becoming familiar with the data and creating a list of primary concepts and notes from the data set, the initial stage of generating codes started. The data set of this study was coded, and the coding process further helped to explore the data to identify concepts attached to learners' use, strategies, difficulties, attitude and perception of corrective feedback. The data set was explored and coded considering some themes resulting from the literature review and the questions of the study (deductive coding) and derived from data itself (inductive coding). The participants' words, phrases and sentences about different aspects of corrective feedback were recognised, and the repeated patterns across the data were elicited and noted down. The data was coded by highlighting the extracts and segments, and the codes were written in the margin as shown in ***Table 3.4***. The extracts and the segments were grouped with their codes in a separate word document. Some of these extracts were assigned with more than one code because they were relevant to those codes. In the final stage of coding, the whole data set was coded and organised, and a list of codes was made. These codes were the underpinning for creating the themes and subthemes.

**Table 3-4 Data coding sample**

| Profile | Data | Initial codes |
|---|---|---|
| ***DS1*** | I: can you tell me what did you do when your teacher asked you to revise your work?<br>Ds1: I read the text twice and looked at my teacher's corrections and read them carefully | Revising techniques<br>with attention |
| ***IDS2*** | I: How did you revise your text?<br>IDS2: I read the text and looked at the circled words and I knew they were not correct." | Awareness of the errors without knowing what to do! |
| ***CS3*** | I: Did you revise your text?<br>CS3: I looked at the text without concentration and then I started writing the same topic. | Ignoring revision |

(I= interviewer/ DS1= the best student in the direct group/ IDS2= indirect group student with no error rates change over time/ CS3= control student with the worse error rates over time)

Following the data coding stage, themes and subthemes were identified, "a theme is a pattern found in the information that at minimum describes and organises the possible observations at the maximum interprets aspects of the phenomenon" (Boyatzis, 1998: 4). It also "captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006: 83).

Different codes emerged from the data set to create probable themes as shown in ***Table 3.5***. The codes were analysed to identify the relationships between them and then organised to form different themes. A set of themes was developed, and the coded data extracts were organised within these themes.

**Table 3-5 Creating themes sample**

| Participant | Coded Text | Initial Code | Interpretation | Themes |
|---|---|---|---|---|
| ***DS1*** | When my teacher asked us to revise our work I read the text twice and looked at my teacher's corrections and read them carefully. I found my teachers' corrections for my errors I copied some of them because some of my teacher's corrections were not easy to read when I asked her to help me she was busy with another student. | Revision techniques<br><br>Correction strategy<br><br>Difficulties | The learner revised her work by means of reading her teacher's correction carefully.<br><br>The students relied on his teacher's corrections while editing.<br><br>She faced some difficulties to understand her teacher's corrections. | Revising behaviour and correction strategies<br><br>Learners' Challenges while processing CF |

Finally, themes were reviewed by reading the collated data extracts for each theme and explored to identify whether they formed a coherent pattern or not, and also examined to see whether the themes fitted the data extracts or not (Braun & Clarke, 2006). They were also explored to examine the strength of the themes in relation to the set and discover whether they reflected "the meanings evident in the data set as whole" (Braun & Clarke, 2006: 94). Thus, the dataset was read and re-read to ensure that whether the themes matched and corresponded to the data set or not. The final stage of this phase was creating a list of themes from the interview data as presented in ***Tables 3.4*** and ***3.5***.

#### 3.3.10.2. Within Case Analysis

At this stage, only five participants were selected because they gave more details about themselves than others, and each participant treaded as a comprehensive case in itself. This needed analysing each interview individually and attempting to form general codes about each case. The coding process sought patterns or associations among the data set. This analysis was also to explore the data, to identify coding concepts that attached to learners' use, strategies in using corrective feedback, the difficulties they encountered when dealing with corrective feedback, their attitudes and perception of written corrective feedback. The codes were more inferential than descriptive, which facilitated data reduction. The data set was explored and coded considering some themes that resulted from the literature review and the research questions (deductive coding) and some derived

from the data itself (inductive coding). The participants' words, phrases and sentences about different aspects of corrective feedback were identified, and the repeated patterns across the data were selected and written down. The data was coded by highlighting the extracts, and the codes were written in the margin as shown in ***Table 3.6***. These codes were doubled checked by a colleague who is a former PhD student and works at Sheffield University, to establish consistency of coding. The extracts and the pieces were gathered with their codes in a separate word document. Some of those extracts were assigned with more than one code because they were relevant to those codes. At the final stage, all data set was coded and organised, and the codes were listed. These codes were the foundation for creating the themes and subthemes.

**Table 3-6 A sample of initial codes creating**

| Profile | Data | Initial codes |
|---|---|---|
| ***DS1*** | **I:** Can you tell me how do you manage to correct your errors?<br>**DS1:** "based on what sounds right." | Self-correction strategy |
| ***IDS1*** | **I:** Can you tell me how do you manage to correct your errors?<br>**IDS2:** "I used both relying on what sounds right and remembering the grammatical rules." | Self-correction strategy |
| ***CS1*** | **I:** Can you tell me how do you manage to correct your errors?<br>**CS1:** "I tried to correct the ones I know based on what sounds right, and I asked my teachers to explain some errors and I corrected them, but I left the ones that I didn't know." | Self-correction strategy |

Different codes were emerged from the data set to create potential themes as shown in ***Table 3.7.*** The codes were analysed to identify the relationships between them and then organised to form different themes. A set of themes was developed, and the coded data extracts were organised within these themes.

**Table 3-7 A sample of creating case studies themes**

| Participant | Coded Text | Initial Code | Themes |
|---|---|---|---|
| ***DS1*** | "My writing was at first absolutely horrific I didn't know how to write in full sentences or how to write a short paragraph. I think my writing is not so bad. Firstly, my strengths in English writing are simple sentences, commas, and full stops, I mean punctuations, but not all of them. Secondly, my weaknesses are the spellings like long words/ high level words, for example, (creativity) and complex grammatical structures, I'm not good at grammar. Finally, my teacher had told me that the aforementioned are my weaknesses and strength." | Self-judgement | Self-identified strengths and weaknesses |

All themes were reviewed by reading the extracts of the data, which was organised under each theme, the themes were explored in order to ensure that whether they formed comprehensible patterns. Moreover, the data was also inspected to see whether the themes fitted the data extracts (Braun & Clarke, 2006). They also were explored to examine the strength of the themes in relation to the set and discover whether they mirror "the meanings evident in the data set as a whole" (Braun & Clarke, 2006: 94). Thus, reading and re-reading the data set was to ensure that whether the themes matched and corresponded to the data set. The final stage of this phase was creating a list of themes for each individual case study data as it presented in ***Tables 3.6*** and ***3.7***. The case study analysis and reports are presented in Chapter 5.

## 3.4. Ethical Issues

Before conducting this study in Azzawia University, an approval was gained from the department of English authorities. The experiment was set in the department classrooms, which have typical safety measures. The experiment procedures did not cause any stress or any problems to the participants (Dornyei, 2007). The first-year students gave consent to take part in the experiment. All of the participants were asked to fill in participation information forms in two versions, Arabic and English. The form had information about the study, and about the role of the participants as well as their rights. All of the participants were reminded of their right to withdraw from the study at any time, and that their participation was voluntary (Dornyei, 2007). The participants were also told that

their information would be treated carefully and confidentially and would only be used for the purpose of the study (Dornyei, 2007). They were also asked to complete the consent form and submit it to their teacher.

Similarly, for the interview, each interviewee was asked to sign a consent form that ensured their acceptance to participate in the interviews (Bell, 2005; Flick, 2007; Dornyei, 2007). The interviewees were asked to leave their phone numbers with their teachers and told that that they would be contacted by the researcher later. They were introduced to the nature and aims of the study and they were allowed to ask any questions or raise any enquiries that they may have (Bell, 2005; Dornyei, 2007). Furthermore, each participant was reminded of their right to stop the interview if he/she was not comfortable. The permission for recording the interview was obtained from the participants who were also informed that all the data gained from the interview would be treated confidentially and used only for the purposes of the research (Dornyei, 2007; Mile et al., 2014).

The case studies participants were treated similarly when they participated in the interview. They were informed during the interview that extra data may be needed in future. The permission was taken for calling them and recording the interview. They were also reminded that they had the right if they want to not continue with the interview if they did not wish to. Finally, they were informed that the data and information would be dealt with confidentially and used for the study purposes only (Duff, 2010).

## 3.5. Concluding Remarks

This chapter began with a description of the research design, the different methodologies employed to conduct this study, and to answer its research questions. It identified how, and why the mixed method of quantitative and qualitative methods was employed to collect the data. A discussion of each method was presented. These included a quasi-experiment, and case studies. The data collection procedures of this study were described in this chapter. It ended with clarification of the techniques adopted in this study. In addition, the explanation of the ethical issue related to this study was also given. The following two chapters will present the results and the findings of this study.

# Chapter 4. The Experimental Data Analysis

## 4.1. Chapter Overview

This chapter presents the results obtained from the quantitative data analysis. It starts with the results of overall accuracy considering the short-term value of corrective feedback and the long-term efficacy during the delayed post-test. A presentation of the effects of direct and indirect corrective feedback on grammatical and non-grammatical accuracy, and the influence of these types of corrective feedback on the structural complexity and lexical diversity of learners' writing will be discussed throughout the results section. This is followed by general discussion as well as the concluding remarks of this chapter.

## 4.2. Results

A series of statistical analysis were conducted to compare the accuracy of the three study groups- direct corrective feedback, indirect corrective feedback group and the control group. The results are structured as following: a presentation of deductive results on students' writing on the pre-test stage was a baseline measure of students' performance, prior to corrective feedback provision to the direct, indirect, and control groups. Then a successively presentation of the findings to the effectiveness of comprehensive corrective feedback on learners' overall accuracy during the revision stage (Research question 1), its language learning potential (Research question 2), and the effects of direct and indirect corrective feedback on grammatical, non-grammatical accuracy (Research question 3) are displayed. The influence of written corrective feedback on learners' structural complexity and lexical diversity is moreover discussed through the Results section.

### 4.2.1. Overall Accuracy

#### 4.2.1.1. Checking for Sphericity Assumption

The Sphericity assumption was met for the overall accuracy data set. ***Table 4.1*** shows the results of **Mauchly's Test of Sphericity[a]** that the assumption of sphericity had not been violated, $X^2(5) = 7.691$, $p = .174$. It is reasonable to conclude that the variances of differences were not significantly different (i.e. they are roughly equal).

**Table 4-1 Mauchly's Test of Sphericity[a]**

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | Df | Sig. | Epsilon[b] Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
|---|---|---|---|---|---|---|---|
| Time of testing | .871 | 7.691 | 5 | .174 | .920 | 1.000 | .333 |

#### 4.2.1.2. Descriptive statistics

***Table 4.2*** includes the descriptive statistics for overall accuracy for all three group conditions (i.e. control, direct, and indirect), itemised per time of testing (i.e. pre-test, revision stage, immediate post-test, and delayed post-test). From the table, it can be seen that on average, students' overall accuracy of all three groups differs over time, pre-test (*M = 1.55, SD = 0.14)*, revision stage *(M = 1.10, SD =0.50)*, immediate post-test *(M= 1.40, SD = 0.55)*, and delayed post-test *(M = 1.12, SD = 0.41)*. High mean scores indicate that the overall accuracy is low, whereas low mean scores indicates high over all accuracy. In other words, learners' error rates were different on different time stages among the groups. ***Figure 4.1*** is a graph which illustrates the descriptive results in ***Table 4.2***. It shows the changes of students' overall accuracy in the two experimental group conditions and the control group over time. As can be seen from the graph, all groups performed similarly on the pre-test stage. This means that the accuracy of the written work on the pre-test stage was approximately the same among the three groups. In the revision stage, however, the error rate of the direct CF group and the indirect CF group decreased. This indicates that students who received direct and indirect written corrective feedback produced more accurate texts during revision than they did on the pre-test stage. On the immediate post-test stage, students' overall accuracy scores became less, and the number of errors they made increased, whereas on the delayed post-test, there was an improvement in students' error rate, particularly of the two experimental groups.

**Table 4-2 Descriptive statistics: overall accuracy by type of feedback and time of testing**

| Group Conditions | Pre-test | | Revision stage | | Immediate Post-test | | Delayed Post-Test | |
|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD |
| **Direct (N =20)** | 1.55 | 0.09 | 0.73 | 0.44 | 1.28 | 0.39 | 1.06 | 0.36 |
| **Indirect (N =20)** | 1.56 | 0.10 | 1.19 | 0.43 | 1.19 | 0.43 | 0.91 | 0.40 |
| **Control (N =20)** | 1.55 | 0.21 | 1.39 | 0.41 | 1.75 | 0.66 | 1.42 | 0.28 |
| ***Total (N =60)*** | 1.55 | 0.14 | 1.10 | 0.50 | 1.40 | 0.55 | 1.13 | 0.41 |

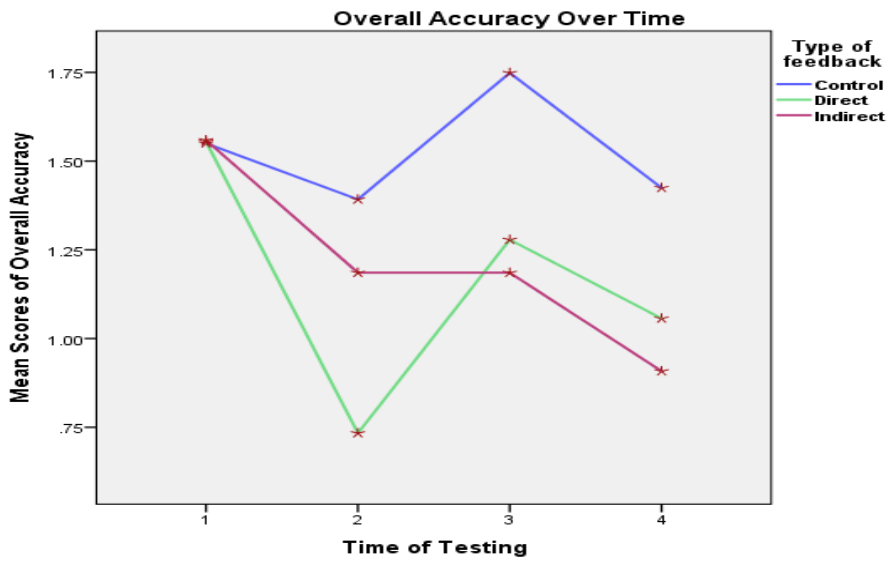


**Figure 4-1 Overall error rate mean scores per type of feedback and time of testing**

#### 4.2.1.3. Pre-test performance

The tests of split-plot ANOVA on students' pre-test texts revealed that there were no significant differences among all three groups in the overall accuracy *($F$ (2, 57) < 1, $p$ = .980, $\eta_p^2$ = .00)*.

### 4.2.2. Effects of Comprehensive Corrective Feedback on Overall Written Accuracy

A series of split-plot ANOVA model was used to test for between-group accuracy differences in the revision stage (i.e., when students revised their work using corrective feedback the following week of writing first task), the immediate post-test, and the delayed post-test. The SPANOVA contained group conditions (control, direct, and indirect) as between-subject factors and time as within-subject factor.

#### 4.2.2.1. Revision Effects

Learners' overall accuracy in the revision stage was changed after receiving written corrective feedback *($F (2, 57) = 12.65, p < .001, \eta_p^2 = .44$).* The results showed that there were significant differences between overall accuracy on the pre-test *($F (2, 57) <1, p = .980, \eta_p^2 = .00$)* and on the revision stage, and the error rate significantly decreased in students' written texts.

In order to determine where the significant difference in overall accuracy lay between group conditions, *the post-hoc pair wise comparisons* were conducted, using *Bonferoni adjustment.* ***Table 4.3*** presents an overview of all significant differences between group conditions in students' overall accuracy over time. During the revision stage, students who received direct corrective feedback turned out to have benefited significantly more than the other two groups- the indirect written corrective feedback and the control. This was to be expected as students in the direct written corrective feedback group, needed only to copy the corrected forms they were provided with by their teacher. This led direct written corrective feedback group learners to write more accurate texts than students in the control group *($p < .001$, Cohen's $d = 1.57$).* However, it is important to note that the indirect group did not reach significant differences when comparing with the control group *($p = .129$).* Furthermore, a comparison between the two experimental groups was made and the outcomes revealed that the difference between the direct and the indirect corrective feedback groups reached significance *($p = .001$, Cohen's $d = 1.05$).* The *differences in Cohen's d* values between experimental groups showed that the effects of the direct corrective feedback on the students' overall accuracy during the revision stage were more significant than the effects of the indirect corrective feedback.

Furthermore, by means of the four time-stages (pre-rest, revision, immediate post-test, and delayed post-test) the within-group subject factor in *SPANOVA, the post-hoc pair wise comparisons* with *Bonferoni adjustment* findings showed that the overall accuracy of the direct corrective feedback group was significantly different during the revision stage from their pre-test performance *($p <.001$, Cohen's $d = 2.64$)*. Correspondingly, the indirect corrective feedback group's overall accuracy on the revision time was also significantly different from their performance on the pre-test *($p < .001$, Cohen's $d = 1.19$)*, while there was no significant difference in the control group's overall accuracy during the revision stage compared with their performance on the pre-test stage.

#### 4.2.2.2. Short-Term Learning Effects (Immediate Post-Test)

When the SPANOVA model was applied to the data set of the immediate post-test (i.e. the students' writing tasks that were written one week after they received the two types of written corrective feedback) the results revealed that the experimental groups (i.e. direct written corrective feedback and indirect written corrective feedback groups) and the control group significantly varied in the error rates they made when they produced new texts compared with their error rates in the pre-test tasks *($F (2, 57) = 7.26, p = .002, \eta_p^2 = .25$)*. In the light of the corrective feedback effect, the *post-hoc pair wise comparisons* were conducted, using *Bonferoni* correction ***(see table 4.3)***. The most important observation was that learners from both the direct and the indirect corrective feedback groups' overall accuracy scores were significantly different from the overall accuracy scores of the control group. The direct CF group's error rate was significantly less than the control group's *($p < .004$, Cohen's $d = 0.88$)*. The number of errors for the indirect corrective feedback group reduced and reached a significant difference when compared with the control group *($p < .001$, Cohen's $d = 1.02$)*. This means that the students in both direct and indirect corrective feedback groups wrote more accurate texts than the students in control group did during the immediate post-test stage. Finally, the comparison tests showed no significant differences between the experimental groups (the direct CF and the indirect CF) *($p < .059$)*. In other words, students who received direct and indirect corrective feedback on the first piece of writing during the pre-test stage, made a similar number of errors in the new texts they wrote a week later, compared to the students who received general comments on the first task they wrote in the control group. However, the corrective feedback effect sizes of both the direct and indirect groups during the immediate post-test indicated to be roughly different from each other compared to the control group. When comparing the *Cohen's d* values of the immediate post-test, it can be seen that the indirect corrective feedback had more effect on the overall accuracy *(Cohen's $d = 1.02$* than the direct corrective feedback *(Cohen's $d = 0.88$)*.

Moreover, considering the time as the within group-factor when running the *Bonferroni adjusted post hoc pair wise comparison tests*, the outcomes showed that the error rate on the immediate post-test for the direct corrective feedback group significantly differed when it was compared with their error rate during the pre-test *($p = .012$, Cohen's $d = 0.98$)*. For the other experimental group, the results showed that the number of errors made by the indirect corrective feedback group on the immediate post-test was significantly less than the number of errors they made on the pre-test *($p = .001$, Cohen's*

*d = 1.19*). Based on the statistics, the indirect group's accuracy was better on the immediate post-test stage than on the pre-rest stage, and it was approximately the same as their accuracy on the revision stage. By contrast, the control group's error rate was increased during the immediate post-test, and their overall accuracy was significantly different from their error rate in the revision time *(p = .001, Cohen's d = 0.65).* The control group wrote less accurate texts on the immediate post-test stage than they did in the pre-test stage.

#### 4.2.2.3. Long-Term Learning Effects (Delayed Post-Test)

During the experiment the students had to write the final task in week eight (i.e. they wrote the final task 6 weeks after they had received the two types of CF). The SPANOVA model analysis showed that there was a significant between-group difference regarding overall accuracy in students' new written texts *($F (2, 57) = 11.57, p < .001, \eta_p^2 = .41$*). The results from *Bonferroni adjusted post hoc pair wise comparison tests* revealed that students who received corrective feedback on their written texts 6 weeks before writing their new texts, still had advantage from the corrective feedback provision. Both the direct CF group *(p = .002, Cohen's d = 1.14)* and the indirect CF group *(p < .001, Cohen's d = 1.49)* made significantly fewer errors than students who were in the control group. The effect size of direct and indirect corrective feedback showed the impact on the overall accuracy in new pieces of writing. However, the results showed that indirect corrective feedback effects were more than those for direct correction on students' overall accuracy when producing new texts in week eight of the experiment.

In addition, the *Bonferroni adjusted post hoc pair wise comparison tests* resulted in that the direct correction treatment group made fewer errors on the delayed post-test than on the pre-test and the difference was significant *(p < .001, Cohen's d = 1.92).* Furthermore, the direct corrective feedback group students' error rate showed a significant reduction on the delayed post-test comparing with the error rate on the immediate post-test *(p =.038, Cohen's d = 0.60)*. Thus, the overall accuracy of the direct corrective feedback group improved on the immediate post-test stage and on the delayed post-test stage. With regard to the indirect corrective feedback group, the results showed that overall accuracy improvement during the delayed post-test as their error rate showed significant changes when it was compared with the error rate during the pre-test *(p<.001, Cohen's d = 2.22).* Furthermore, the indirect corrective feedback group's overall accuracy significantly outperformed on the delayed post-test their overall accuracy on the revision stage

*(p= .005, Cohen's d = 0.67)* and on the immediate post-test *(p = .01, Cohen's d = 0.67)*. The control group's performance showed significant improvement when it was compared with their error rate on the immediate post-test *(p = .003, Cohen's d = 0.65)*. Nevertheless, the control group's error rate showed no significant differences with the pre-test error rate *(p= .114)* and their error rate during the revision stage *(p= .734)*. The following tables summarises the findings of between group analysis and within group analysis.

**Table 4-3 Summary of significant contrasts between Feedback groups in overall accuracy with associated Cohen's d effect sizes**

| Time of Testing | Overall accuracy | Cohen's *d* effect sizes |
|---|---|---|
| **Revision Stage** | ***DIRECT > CONTROL | *1.57* |
| | ***DIRECT > INDIRECT | *1.05* |
| **Immediate Post-test** | **DIRECT > CONTROL | *0.88* |
| | ***INDIRECT > CONTROL | *1.02* |
| **Delayed Post-test** | **DIRECT > CONTROL | *1.14* |
| | ***INDIRECT > CONTROL | *1.49* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

**Table 4-4 Summary of significant contrasts within Feedback groups in overall accuracy with associated Cohen's d effect sizes and P values**

| Groups | Structural Complexity | P value | Cohen's *d* effect sizes |
|---|---|---|---|
| **Direct** | ***pre-test > revision | *.000* | *2.64* |
| | *pre-test >immediate post-test | *.012* | *0.98* |
| | ***pre-test > delayed post-test | *.000* | *1.92* |
| | ***immediate post-test > revision | *.000* | *0.60* |
| | **immediate post-test > delayed post-test | *.001* | *0.59* |
| | *delayed post-test > revision | *.038* | *0.81* |
| **Indirect** | ***pre-test = revision | *.000* | *1.19* |
| | ***pre-test = immediate post-test | *.001* | *1.19* |
| | ***pre-test = delayed post-test | *.000* | *2.22* |
| | ***immediate post-test = revision | *.000* | *0* |
| | *immediate post-test = delayed post-test | *.005* | *0.67* |
| | **delayed post-test = revision | *.010* | *0.67* |
| **Control** | **immediate post-test > revision | *.001* | *0.66* |
| | *delayed post-test > revision | *.003* | *0.65* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

## 4.3. Grammatical Accuracy

### 4.3.1. Checking for Sphericity Assumption

The assumption of Sphericity of the grammatical accuracy data set was met. **Table 4.5** shows the results of **Mauchly's Test of Sphericity**[a] that revealed the assumption of Sphericity had not been violated, $X^2(5) = 9.812, p = .081$. Alike to overall accuracy, the variances of differences were not significantly different (i.e. they were about the same). Thus, it is realistic to determine that the value F can be trusted.

**Table 4-5 Mauchly's Test of Sphericity[a]**

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | Df | Sig. | Epsilon[b] | | |
|---|---|---|---|---|---|---|---|
| | | | | | Greenhouse -Geisser | Huynh -Feldt | Lower -bound |
| Time of testing | .839 | 9.812 | 5 | .081 | .901 | .984 | .333 |

### 4.3.2. Descriptive Statistics

Truscott (2001, 2007) claimed that non-grammatical errors might be more responsive to be corrected than the grammatical errors. Therefore, separate analyses for the error types (grammatical and non-grammatical) were applied on this data set. **Table 4.6** displays the descriptive statistics of the grammatical accuracy for all group conditions, classified per time of testing. It can be understood from the information listed in the table that overall, students' grammatical accuracy under all three group conditions varied over time, the mean scores were high in pre-test (*M = 0.96, SD = 0.11),* which indicated that students' written work was less accurate. On the revision stage, the mean scores reduced, and students' accuracy improved *(M = 0.67, SD =0.38),* this was similar on the immediate post-test stage (*M= 0.70, SD = 0.28),* as well as on the delayed post-test stage *(M = 0.75, SD = 0.31)*. ***Figure 4.2*** demonstrates the descriptive outcomes in ***Table 4.6.*** The graph explains that the students' grammatical accuracy error rate of the two experimental groups as well as the control group changed over time of testing. As can be seen from the graph, all groups performed similarly at the pre-test stage, whereas the error rate based on the mean scores of the direct CF group and the indirect CF group significantly decreased during the revision stage. However, on the immediate post-test, students' grammatical accuracy means scores increased for all groups and their error rate reduced and their written work became more accurate comparing with the pre-test error rate. The students' grammatical accuracy error rate increased again when it was compared to the error rate on the revision stage. In the same way, on the delayed post-test, corrective feedback groups' error rate increased, compared with the immediate post-test, while the control group's error rate decreased.

**Table 4-6 Descriptive statistics: grammatical accuracy by type of feedback and time of testing**

| Group Conditions | Pre-test | | Revision stage | | Immediate Post-test | | Delayed Post-test | |
|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD |
| **Direct (N =20)** | 0.96 | 0.10 | 0.51 | 0.38 | 0.64 | 0.19 | 0.78 | 0.32 |
| **Indirect (N =20)** | 0.96 | 0.10 | 0.57 | 0.20 | 0.59 | 0.21 | 0.65 | 0.30 |
| **Control (N =20)** | 0.96 | 0.14 | 0.93 | 0.39 | 0.87 | 0.32 | 0.85 | 0.27 |
| ***Total (N =60)*** | 0.96 | 0.11 | 0.67 | 0.38 | 0.70 | 0.28 | 0.75 | 0.31 |

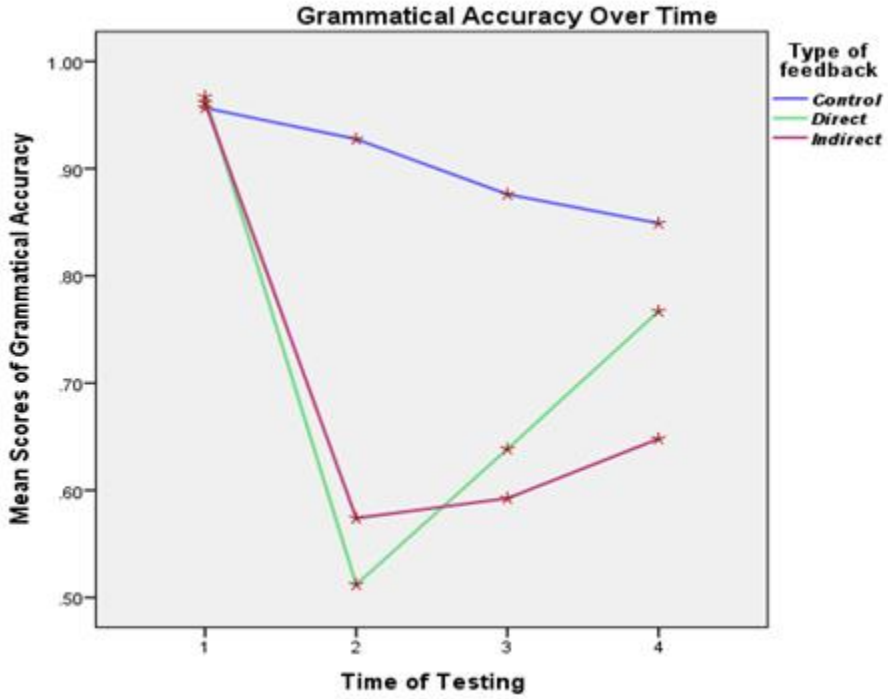


**Figure 4-2 Grammatical error rate mean scores per type of feedback and time of testing**

### 4.3.3. Pre-test Performance

SPANOVA model on students' pre-test texts concerning grammatical accuracy indicated that there were no significant differences between all three groups *($F (2, 57) <1, p = .960, \eta_p^2 = .00$)*.

## 4.4. Effects of Comprehensive Corrective Feedback on Grammatical Accuracy

The following sections present the results obtained from the comparisons among experimental groups and control group considering the four-time stages of the experiment. The results showed the effectiveness of written corrective feedback on learners' grammatical accuracy on the revision stage, the immediate post-test stage and the delayed post-test stage.

### 4.4.1. Revision Effects

Considering students' grammatical performance on the revision stage, the SPANOVA outcomes showed that learners who were provided with corrective feedback wrote more grammatically accurate texts when rewriting the first task *($F (2, 57) = 9.03, p = .001, \eta_p^2 = .32$)*. *Bonferroni correction post hoc pair wise comparison tests* revealed that the direct corrective feedback and the indirect corrective feedback groups significantly outperformed those in the control group. Students in both the direct *($p < .001$, Cohen's d*

= *1.08)* and the indirect corrective feedback *(p=.001, Cohen's d=1.14)* groups significantly reduced their grammatical errors by using written corrective feedback effectively in comparison with the learners' performance in the control group. The outcomes revealed that there were no significant differences between the groups who were provided with either direct or indirect corrections *(p = .559)*; the effect sizes of both two types of correction -direct and indirect corrective feedback on the grammatical accuracy during the revision showed to be more or less the same as they presented in ***Table 4.7***.

In addition, grammatical accuracy for each group was compared over time by tests following the *SPANOVA, (i.e. the post-hoc pair wise comparisons)*, using *Bonferoni adjustment.* The analysis revealed that the direct corrective feedback group's error rate significantly improved compared with their error rate during the pre-test time *(p < .001, Cohen's d = 1.66).* The indirect corrective feedback group also improved their error rates and performed better during the revision stage and the difference was significant *(p < .001, Cohen's d = 2.50).* There were no significant differences in the control group's error rate measurements during revision stage, compared with their error rate on the pre-test stage *(p = .699).*

### 4.4.2. Short-Term Learning Effects (Immediate Post-Test)

Grammatical accuracy during the immediate post-test was analysed by applying the SPANOVA test, and the results revealed that for the two groups who were provided with corrective feedback it proved to have a significant effect on their grammatical accuracy when producing new texts, a week after corrective feedback provision *(F (2, 57) = 7.43, p = .001,* $\eta_p^2 = .26$). The outcomes of the *post-hoc pair wise comparisons* with *Bonferroni adjustment*, showed that students who received the indirect corrective feedback produced new texts with fewer grammatical errors than the students who had overall notes in the control group and the difference was significant *(p = .001, Cohen's d = 1.04).* Similarly, learners who were directly provided with the correct forms to their errors in the revision stage were able to write new texts with fewer grammatical errors and they significantly differed from the control group *(p =.004, Cohen's d = 0.89).* Unlike the revision stage, the *Cohen's d* values indicated that the indirect written corrective feedback *(Cohen's d = 1.04)* had greater effect on students' grammatical accuracy during the immediate post-test than the direct corrective feedback (*Cohen's d = 0.89)* when learners wrote a new text a week after feedback provision.

For a within-group comparison, the results revealed that the direct corrective feedback group produced new texts with fewer grammatical errors than the number of the grammatical errors was in their first written texts *(p <.001, Cohen's d = 2.14)*. In other words, the difference between the grammatical error rate on the immediate post-test and the pre-test was significant. Although the direct written corrective feedback group's performance was less accurate during the immediate post-test when compared to their performance during the revision, the difference was not significant *(p = .088)*. The indirect corrective feedback group's grammatical performance in new texts was significantly improved and was better than their performance during the pre-test time *(p < .001, Cohen's d = 2.21)*. The grammatical performance of the indirect corrective feedback group when they wrote new texts was approximately similar to their performance when they received the indications of their errors during the revision stage *(p = .801)*. The control group showed no significant difference in their grammatical errors during the immediate post-test compared with the pre-test *(p = .131)* and revision performances *(p = .483)*.

### 4.4.3. Long-Term Learning Effects (Delayed Post-Test)

Analysis of variance revealed that there was a significant difference amongst groups six weeks after feedback provision *($F (2, 57) = 7.43, p = .001, \eta_p^2 = .20$)*. The grammatical performance of students on the delayed post-test was positively affected by only one type of written corrective feedback approach. Although students in the direct group made fewer errors than students in the control group, there were no significant differences between them *(p=.39)*. However, *post hoc pair wise comparisons* showed the indirect corrective feedback to be significantly more effective in reducing the number of grammatical errors in student's new writing than the control group *(p= .039, Cohen's d= 0.70)*. When comparing two treatment groups -direct and in direct corrective feedback, the difference between them was not significant *(p=.216)*. In the delayed post-test concerning students' grammatical accuracy, only the effect of the indirect corrective feedback was sustained in producing new texts in the eighth week of the experiment.

In addition, the *SPANOVA post-hoc pair wise comparisons*, using *Bonferoni adjustment* indicated that during the delayed post-test in the case of the learners who received direct corrections, their grammatical accuracy showed significant difference from their grammatical accuracy on the pre-test *(p=.003, Cohen's d = 0.84)*. Although the grammatical error rate of the direct corrective feedback group became less during the

delayed post-test, it increased significantly compared with the error rate during the immediate post-test *(p<.001, Cohen's d = 0.48)*. The indirect corrective feedback group produced new texts in the final test with fewer errors than in the pre-test and the difference between two stages was significant *(p<.001, Cohen's d = 1.39),* and the group's error rate was similar to their error rate during the revision stage *(p =.336)* and the immediate post-test and there was no significant difference *(p =.388)*. The control group's grammatical accuracy during the delayed post-test had no significant difference compared with their error rate on the pre-test stage *(p =.098)* as well as when comparing with the error rate on the immediate post-test stage *(p =.673)*. The following tables show the results of between group analysis and within group analysis.

**Table 4-7 Summary of significant contrasts between Feedback groups in grammatical accuracy with associated Cohen's *d* effect sizes**

| Time of Testing | Grammatical Accuracy | Cohen's d effect sizes |
|---|---|---|
| **Revision Stage** | ***DIRECT > CONTROL | *1.08* |
| | ***INDIRECT > CONTROL | *1.14* |
| **Immediate Post-test** | ** DIRECT > CONTROL | *0.89* |
| | ***INDIRECT > CONTROL | *1.04* |
| **Delayed Post-test** | DIRECT > CONTROL | *0.27* |
| | * INDIRECT > CONTROL | *0.70* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

**Table 4-8 Summary of significant contrasts within Feedback groups in grammatical accuracy with associated Cohen's *d* effect sizes and P value**

| Groups | Structural Complexity | P value | Cohen's *d* effect sizes |
|---|---|---|---|
| **Direct** | ***pre-test > revision | *.000* | *1.66* |
| | ***pre-test >immediate post-test | *.000* | *2.14* |
| | **pre-test > delayed post-test | *.003* | *0.83* |
| | *immediate post-test > delayed post-test | *.049* | *0.48* |
| | *delayed post-test > revision | *.001* | *0.72* |
| **Indirect** | ***pre-test > revision | *.000* | *2.48* |
| | ***pre-test > immediate post-test | *.000* | *2.20* |
| | ***pre-test > delayed post-test | *.000* | *1.38* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

## 4.5. Non-Grammatical Accuracy

### 4.5.1. Checking for Sphericity Assumption

The Sphericity assumption for non-grammatical accuracy was achieved. **Table 4.9** shows the results of **Mauchly's Test of Sphericity[a]** which revealed that the assumption of Sphericity had not been violated, $X^2(5) = 7.062$, $p=.216$. The test revealed that the variances of differences were about the same and were not significantly different. Therefore, the F ratio can be reliable.

**Table 4-9 Mauchly's Test of Sphericity[a]**

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | Df | Sig. | Epsilon[b] Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
|---|---|---|---|---|---|---|---|
| Time of testing | .881 | 7.062 | 5 | .216 | .924 | 1.000 | .333 |

### 4.5.2. Descriptive Statistics

Like the grammatical accuracy in students' revised written texts and new texts they wrote over time, the SPANOVA test used to test between-group non-grammatical accuracy over time. The descriptive statistics for non-grammatical accuracy, specified by group conditions and time of testing, are included in ***Table 4.10***. From the table it appears that on average, the non-grammatical accuracy of all three groups differed over time as the mean scores of non-grammatical accuracy were high in pre-test ($M = 0.59$, $SD = 0.11$), then on the revision stage the mean scores became less than they were in the pre-test stage ($M = 0.35$, $SD = 0.16$). Correspondingly, on the immediate post-test stage ($M = 0.37$, $SD = 0.19$), and delayed post-test stage ($M = 0.38$, $SD = 0.17$) there was a reduction in the mean scores which indicated that students' non-grammatical accuracy improved over time. The outcomes presented in ***Table 4.10*** are demonstrated by the graph in ***Figure 4.3***, in which the learners' non-grammatical accuracy improved over time. It is clear that both corrective feedback groups enhanced their non-grammatical error rate during the experimental time stages. As can be seen from the graph, the experimental groups- direct corrective feedback, indirect corrective feedback- and the control group performed similarly at the pre-test stage. However, during the revision time the direct corrective feedback group's error rate reduced. Similarly, the indirect corrective feedback group and the control group performed better during the revision stage. In addition, the graph shows

that the direct corrective feedback group and the control group's error rate was reduced during the immediate post-test and the delayed post-test stages, as well as the indirect corrective feedback group, which showed great benefits from feedback provision over time.

**Table 4-10 Descriptive statistics: non-grammatical accuracy by type of feedback and time of testing**

| Group Conditions | Pre-test | | Revision stage | | Immediate Post-test | | Delayed Post-Test | |
|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD |
| **Direct (N=20)** | 0.59 | 0.05 | 0.22 | 0.06 | 0.26 | 0.11 | 0.29 | 0.10 |
| **Indirect (N=20)** | 0.60 | 0.03 | 0.37 | 0.11 | 0.36 | 0.08 | 0.26 | 0.13 |
| **Control (N=20)** | 0.59 | 0.18 | 0.46 | 0.10 | 0.48 | 0.24 | 0.57 | 0.05 |
| ***Total (N=60)*** | 0.59 | 0.11 | 0.35 | 0.16 | 0.37 | 0.19 | 0.38 | 0.17 |

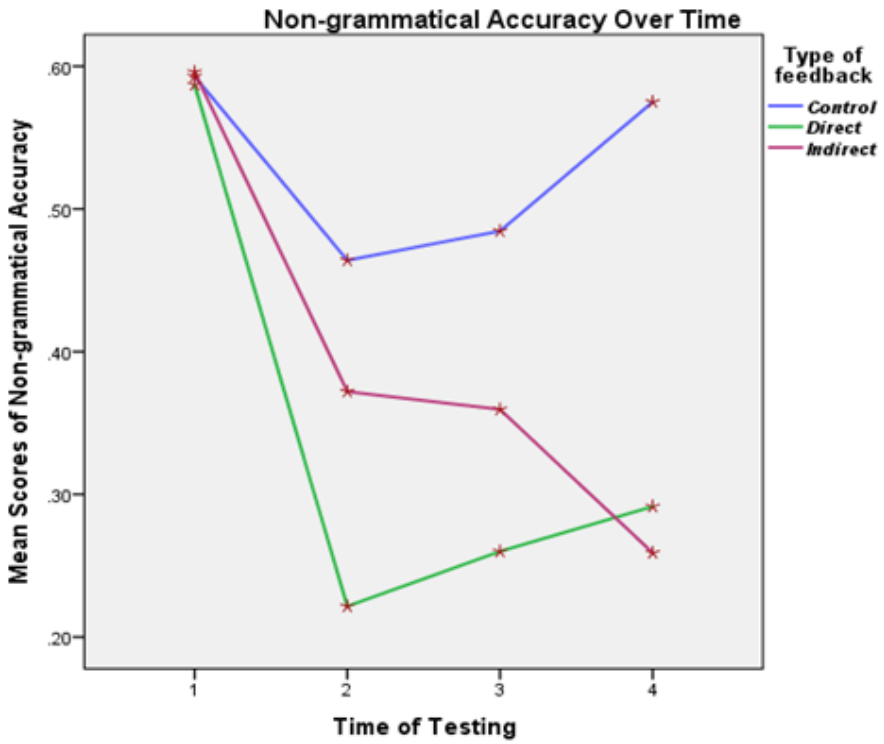


**Figure 4-3 Non-grammatical error rate mean scores per type of feedback and time of testing**

### 4.5.3. Pre-Test Performance

SPANOVA measures on students' baseline texts (pre-test texts) with group condition as between-subjects variables revealed that there were no significantly initial differences amongst the three groups in non-grammatical accuracy *($F$ (2, 57) <1, $p$=.966, $\eta_p^2$ =.00)*.

## 4.6. Effects of Comprehensive Corrective Feedback on Non-grammatical Accuracy

The following sections present the results obtained from the comparisons among experimental groups and control group considering the four time stages of the experiment. The results showed the effectiveness of written corrective feedback on learners' non-grammatical accuracy on revision stage, immediate post-test stage and delayed post-test stage.

### 4.6.1. Revision Effects

Students' non-grammatical error rates during revision evidenced to be different compared with the pre-test error rates *($F (2, 57) = 16.52, p <.001, \eta_p^2 = .36$).* The outcomes from the *post hoc pair wise comparisons with Bonferroni correction* per accuracy type, indicated that written corrective feedback facilitated learners to resolve their non-grammatical errors when they received their first text with corrections. Students who were given the direct correct forms to the errors in their original texts on the pre-test stage made significantly fewer non- grammatical errors than learners who received common commentaries in the control group *($p < .001$, Cohen's $d = 1.66$)*. Moreover, students whose errors were circled also proved to have a more beneficial effect on non-grammatical accuracy measures than the control group and the difference between the groups was significant *($p <.035$, Cohen's $d = 1.66$).* At the revision stage, the effects associated with the direct written corrective feedback were precisely the same as those of the indirect corrective feedback with regard to the Cohen's d effect size results *(Cohen's $d = 1.66$).*

Additionally, the outcomes from the *post hoc pair wise comparisons with Bonferroni correction* revealed that the non-grammatical accuracy of the direct corrective feedback group during the revision time was significantly different from their non-grammatical accuracy in the first draft they wrote before receiving the error corrections *($p < .001$, Cohen's $d = 6.41$)*. The indirect corrective feedback group's non-grammatical accuracy improved significantly during the revision *($p < .001$, Cohen's $d = 2.81$).* The control group's non-grammatical errors became significantly fewer than they were in their first draft on the pre-test stage *($p < .001$, Cohen's $d = 0.68$).*

### 4.6.2. Short-Term Learning Effects (Immediate Post-Test)

During the immediate post-test- a week after having the CF experience, there was a significant difference between groups *($F (2, 57) = 9.50, p < .001, \eta_p^2 = .25$).* Analysis of the *post hoc pair wise comparisons with Bonferroni adjustment* furthermore showed that the direct corrective feedback and the indirect corrective feedback yielded a significant effect on students' non-grammatical errors when students wrote first new texts. The experimental group, who received an indication of the errors and provision of the corresponding correct forms (i.e., direct CF), benefited more than the control group as the difference between the groups was significant *($p < .001$, Cohen's $d = 1.18$).* In addition, the indirect group made a significant difference in learners' non-grammatical errors when they wrote new texts compared with the control group *($p = .019$, Cohen's $d = 0.68$).* When comparing the direct corrective feedback with indirect corrective feedback performances, the results revealed that there was no significant difference between the experimental groups *($p = .59$).* In general, results showed that the direct group made a significant difference compared with the indirect and control groups and its effect size was (*Cohen's $d = 1.18$)*.

The comparison tests of the *post hoc pair wise comparisons with Bonferroni adjustment* also revealed that the students who were provided with direct corrections, produced new pieces of writing with a significantly smaller number of errors during the immediate post-test *($p < .001$, Cohen's $d = 3.81$)* and the number of errors became smaller than it was during the pre- test. Likewise, the indirect corrective feedback group performed better during the immediate post-test and their errors were significantly reduced when compared with their pre-test task writings *($p < .001$, Cohen's $d = 3.81$).* Although the indirect corrective feedback group's performance during the immediate post-test was better than their performance during the revision time, it did not show significant differences *($p = .309$)*. The control's non-grammatical error rate increased when they wrote new texts during the immediate post-test, however, it was significantly improved compared with their error rate in the pre-test *($p = .004$, Cohen's $d = 0.50$)*.

### 4.6.3. Long-Term Learning Effects (Delayed Post-Test)

In the delayed post-test that learners had in week eight during the experiment, the results indicated that there were significant differences between experimental groups and the control group *($F (2, 57) = 57.7, p < .001, \eta_p^2 = .66$).* To decide where the significant differences in non-grammatical accuracy were positioned across groups, the *post hoc pair*

*wise comparisons with Bonferroni adjustment* were conducted. The most important observation was that the direct corrective feedback group and the indirect corrective feedback group were found to be considerably more valuable in improving learners' non-grammatical accuracy than general comments of the control group on the delayed post-test stage. The difference between non-grammatical accuracy of the direct corrective feedback group and non-grammatical accuracy of the control group was significant *($p < .001$, Cohen's $d = 3.47$)*. Similarly, the indirect corrective feedback group produced more accurate new texts regarding the non-grammatical accuracy than the control group during the delayed post-test stage *($p < .001$, Cohen's $d = 3.09$).* Once again, based on the effect sizes comparisons, the direct corrective feedback had more effect on the non-grammatical accuracy than the effect of indirect corrective feedback during the second post-test stage.

Further comparisons came after the application of *SPANOVA, the post-hoc pair wise comparisons* with the *Bonferoni modification,* which indicated that the number of non-grammatical errors of the direct corrective feedback group during delayed post-test increased compared with the immediate post-test time and the difference was not significant *($p = .445$)*. However, the number of errors on the final experimental test was significantly less than it was at the beginning of the experiment *($p < .001$, Cohen's $d = 3.64$)*. The indirect CF group's non-grammatical accuracy also improved significantly when the students wrote new texts in the week eight of the experiment when comparing with their non-grammatical accuracy on the pre-test stage *($p < .001$, Cohen's $d = 3.48$)*. Furthermore, the indirect corrective feedback group's performance was significantly different from their performance during revision stage *($p < .001$, Cohen's $d = 0.92$)*, as well as on the immediate post-test stage *($p<.001$, Cohen's $d = 0.90$)*. The control group's error rate reduced during the delayed post-test, however, and the error rate during the delayed post-test writing became similar to their performance on the pre-test stage and there was no significant difference *($p=.563$)*. The non-grammatical accuracy of the control group was significantly different from their non-grammatical accuracy on the immediate post-test *($p =.031$, Cohen's $d = 0.50$)*. The following tables summarise the finding of between group analysis and within group analysis.

**Table 4-11 Summary of significant contrasts between Feedback groups in non-grammatical accuracy with associated Cohen's *d* effect sizes**

| Time of Testing | Non-grammatical accuracy | Cohen's *d* effect sizes |
|---|---|---|
| **Revision Stage** | **DIRECT > CONTROL | *1.66* |
| | * INDIRECT > CONTROL | *1.66* |
| **Immediate Post-test** | **DIRECT > CONTROL | *1.18* |
| | ***INDIRECT > CONTROL | *0.68* |
| **Delayed Post-test** | ***DIRECT > CONTROL | *3.47* |
| | ***INDIRECT > CONTROL | *3.09* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

**Table 4-12 Summary of significant contrasts within Feedback groups in non-grammatical accuracy with associated Cohen's *d* effect sizes and P value**

| Groups | Structural Complexity | P value | Cohen's *d* effect sizes |
|---|---|---|---|
| **Direct** | ***pre-test > revision | *.000* | *6.37* |
| | ***pre-test >immediate post-test | *.000* | *3.81* |
| | ***pre-test > delayed post-test | *.000* | *3.64* |
| | *delayed post-test > revision | *.054* | *0.82* |
| **Indirect** | ***pre-test = revision | *.000* | *2.80* |
| | ***pre-test = immediate post-test | *.000* | *3.81* |
| | ***pre-test = delayed post-test | *.000* | *3.47* |
| | *immediate post-test = delayed post-test | *.017* | *0.89* |
| | **delayed post-test = revision | *.002* | *0.92* |
| **Control** | ***pre-test = revision | *.000* | *0.68* |
| | **pre-test = immediate post-test | *.004* | *0.50* |
| | **immediate post-test = delayed post-test | *.031* | *0.50* |
| | *delayed post-test = revision | *.003* | *0.77* |

## 4.7. Students' Structural Complexity Performance over Time

Truscott (2007) stated that providing learners with feedback is likely to be 'counterproductive'. He argued that teachers who correct students' errors might generate students' fear of committing errors. Consequently, learners tend to simplify their writing by avoiding using the corrected complex structures. Truscott noted that the ultimate aim

of the corrective feedback provision is to make students know the errors they made. Accordingly, this awareness produces a motivation for students to avoid more complex sentences when producing new pieces of writing. Hence, this section presents the results using SPANOVA test that was used to examine Truscott's hypothesis and to explore the influence of corrective feedback on the structural complexity of students' writing. Analysis included student's structural complexity as one of the dependent variables to test between-groups differences in revision stage, immediate post-test, and delayed post-test.

### 4.7.1. Checking for Sphericity Assumption

**Table 4.13** contains the outcome of **Mauchly's Test of Sphericity**[a] which had been done on the students' structural complexity. The results revealed that the assumption of sphericity had been violated, $X^2(5) = 12.448$, $p<.05$. This means F statistics are positively biased rendering it invalid and increasing the risk of a type I error (i.e., the rejection of a true null hypothesis). To overcome the violation of sphericity assumption, there was a need to modify the degrees of freedom *(df)* in order to obtain a valid critical *F-values*. The correction that encountered to combat the violation of sphericity assumption was Greenhouse Geisser. The results from adjustment was that $p = .885$, *and* the *F value* became more reliable and bigger enough to be deemed significant.

**Table 4-13 Mauchly's Test of Sphericity[a]**

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | Df | Sig. | Epsilon[b] Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
|---|---|---|---|---|---|---|---|
| Time of testing | .800 | 12.448 | 5 | .029 | .885 | .964 | .333 |

### 4.7.2. Descriptive Statistics

The descriptive statistics for structural complexity, recorded by group conditions and time of testing, are given in ***Table 4.14.*** On average, students' structural complexity of all three groups slightly differs over time, pre-test ($M = 24.56$, $SD = 11.58$), revision stage ($M = 25.59$, $SD = 12.26$), immediate post-test ($M = 28.22$, $SD = 10.38$), and delayed post-test ($M = 29.80$, $SD = 12.93$). Unlike the mean scores of accuracy, the mean scores of structural complexity increased when students produced more structurally complex texts. ***Table 4.14*** has the presentation of how direct corrective feedback group, indirect

corrective feedback group, and the control group' structural complexity changed over time. The mean scores in the table indicated that all the groups improved their structural complexity over the experiment time. The treatment groups- the direct and the indirect corrective feedback, performed approximately the same at the pre-test stage. The control group's structural complexity was insignificantly different from the corrective feedback groups. At the revision time the direct corrective feedback group rewrote the revised task with more care and the structural complexity was reduced. By contrast, the indirect corrective feedback students produced more complex revised texts, which they rewrote during the revision stage. The control group's texts were also more complex than they were on the pre-test stage. During the immediate post-test the experimental groups produced more complex structured texts than the control group. However, it can be seen that the structural complexity of the direct and the indirect corrective feedback groups was approximately the same. On the final stage of the experiment, the structural complexity of the direct corrective feedback group, the indirect corrective feedback group and the control group was increased, i.e. the students produced new more complex texts over time.

**Table 4-14 Descriptive statistics: structural complexity by type of feedback and time of testing**

| Group Conditions | Pre-test | | Revision stage | | Immediate Post-test | | Delayed Post-Test | |
|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD |
| **Direct (N=20)** | 24.24 | 10.21 | 22.06 | 11.65 | 29.10 | 10.50 | 28.81 | 11.59 |
| **Indirect (N=20)** | 26.60 | 11.75 | 29.00 | 10.35 | 28.84 | 12.05 | 32.73 | 15.00 |
| **Control (N=20)** | 22.84 | 12.90 | 25.73 | 14.10 | 26.74 | 8.71 | 27.86 | 12.06 |
| ***Total (N =60)*** | 24.56 | 11.58 | 25.59 | 12.26 | 28.22 | 10.38 | 29.80 | 12.93 |

### 4.7.3. Pre-Test Performance

The SPANOVA model containing types of feedback as between-subjects factors and time as within-subjects factor, and structural complexity as an dependent variable revealed that there were no significant differences between the two experimental groups and the control

group on the measurement of structural complexity in the initial task they wrote at pre-test time *(F (2, 57) <1, p = .592,* $\eta_p^2$ *= .02).*

## 4.8. Effects of Comprehensive Corrective Feedback on Structural Complexity

The following sections present the results obtained from the comparisons among experimental groups and control group considering the four-time stages of the experiment. The results showed the effectiveness of written corrective feedback on learners' structural complexity on the revision stage, the immediate post-test stage and the delayed post-test stage.

### 4.8.1. Revision Effects, Short Learning Effects and Long Learning Effects

During the revision stage, the results from the SPANOVA model showed no significant difference between groups *(F (2, 57) = 1.635, p = .20,* $\eta_p^2$ *= .05).* Furthermore, the *post hoc pair wise comparisons test with Bonferroni adjustment* revealed that there was no significant difference located in the revision between the direct CF group, the indirect CF group and the control group. Correspondingly, the structural complexity of the students in the direct CF group, the indirect CF group, and the control group during the immediate post-test did not reach a significant difference between groups *(F (2, 57) = 0.302, p = .740,* $\eta_p^2$ *= .01),* as well as on the delayed post-test *(F (2, 57) = 0.790, p = .459,* $\eta_p^2$ *= .02).*

However, the outcomes from SPANOVA model contained time as within-subjects factor showed that there was a significant difference in students' structural complexity. The results from comparisons within-subjects tests did reveal significant differences concerning the structural complexity within the direct corrective feedback group. The students' performance on the immediate post-test significantly differed from their performance on revision stage *(p <.033, Cohen's d = 0.53)*. This indicates that the direct corrective feedback learners' writing during the immediate post-test (when writing new texts after a week of corrective feedback provision) was structurally more complex than their writing on the revision stage. The following table shows results of within group analysis.

**Table 4-15 Summary of significant contrasts within Feedback groups in structural complexity with associated *p value***

| Groups | Structural Complexity | P value |
|---|---|---|
| **Direct** | pre-test = revision | *.216* |
| | pre-test = immediate post-test | *.173* |
| | pre-test = delayed post-test | *.216* |
| | *immediate post-test > revision | *.033* |
| | immediate post-test = delayed post-test | *.936* |
| | delayed post-test = revision | *.074* |
| **Indirect** | pre-test = revision | *.349* |
| | pre-test = immediate post-test | *.425* |
| | *pre-test > delayed post-test | *.056* |
| | immediate post-test = revision | *.961* |
| | immediate post-test = delayed post-test | *.279* |
| | delayed post-test = revision | *.320* |
| **Control** | pre-test = revision | *.261* |
| | pre-test = immediate post-test | *.167* |
| | pre-test =delayed post-test | *.115* |
| | immediate post-test = revision | *.754* |
| | immediate post-test = delayed post-test | *.754* |
| | delayed post-test = revision | *.754* |

*p< .05, **p< .01, ***p< .001

## 4.9. Students' Lexical Diversity Performance over Time

Responding to the claim made by Truscott (2007) that learners whose errors are corrected tend to shorten and simplify their writing, in order to avoid making too many errors. Thus, the fifth dependent variable of the current study was the lexical diversity. The following ***Table 4-16*** shows the students' essay average length by number of words from each group over time.

**Table 4-16 shows the students' essay average length by number of words from each group over time.**

| Groups | Length of essays in pre-test | Length of essays during revision | Length of essays during revision | Length of essays during revision |
|---|---|---|---|---|
| **Direct** | *52-266* | *76-179* | *70-239* | *67-181* |
| **Indirect** | *79-185* | *72-193* | *94-259* | *83-257* |
| **Control** | *64-217* | *80-235* | *79-181* | *72-219* |

### 4.9.1. Checking for Sphericity assumption

In **Table 4.17 Mauchly's Test of Sphericity[a]** of the learners' lexical diversity. The test outcomes indicated that the variances of differences were not equal and the assumption of sphericity had been not satisfied, $X^2(5) = 12.626$, $p <$. 05. The correction using Greenhouse Geisser was applied and the results showed that $p = .867$, *and* the *F value* was reasonably larger to be considered significant.

**Table 4-17 Mauchly's Test of Sphericity[a]**

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | Df | Sig. | Epsilon[b] Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
|---|---|---|---|---|---|---|---|
| Time of testing | .797 | 12.626 | 5 | .027 | .867 | .944 | .333 |

### 4.9.2. Descriptive Statistics

**Table 4.18** summarises the descriptive statistics for lexical diversity, listed by group conditions and time of testing. In general, students' lexical diversity rates of all three groups showed no much changed over time, pre-test (*M = 0.61, SD = 0.07)*, revision stage *(M = 0.60, SD =0.07)*, immediate post-test *(M= 0.60, SD =0.07)*, and delayed post-test *(M = 0.63, SD = 0.05)*. The lexical diversity mean changes of the direct CF group, the indirect CF group and the control group on the four-time points of the experiment are shown in ***Table 4.18***. As can be seen from the table, lexical diversity of all groups was increased over time. On the pre-test stage, the indirect corrective feedback group, and the control group started the experiment with roughly similar lexical diversity rates. The direct corrective feedback group on the pre-test stage wrote their first task with less lexical diversity than the other groups. In addition, the table explains that there was some reduction in the lexical diversity of the indirect CF group during the revision stage. On the other hand, the direct CF group increased their lexical diversity after they revised their pre-test texts and reproduced it on the revision stage. The control group rewrote the task with less lexical diversity at the revision time. When the learners produced new texts a week after receiving CF, the direct CF group developed their lexical diversity. The indirect CF group and the control group's performance on the immediate post-test was approximately the same, and their writing was lexically simplified. Finally, the

experimental groups as well as the control group significantly increased the lexical diversity in their written work when they produced new texts on the delayed post-test.

**Table 4-18 Descriptive statistics: lexical diversity by type of feedback and time of testing**

| Group Conditions | Pre-test | | Revision stage | | Immediate Post-test | | Delayed Post-Test | |
|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD |
| **Direct (N=20)** | 0.60 | 0.05 | 0.61 | 0.06 | 0.61 | 0.08 | 0.64 | 0.04 |
| **Indirect (N=20)** | 0.61 | 0.07 | 0.56 | 0.06 | 0.60 | 0.06 | 0.62 | 0.06 |
| **Control (N=20)** | 0.61 | 0.09 | 0.61 | 0.08 | 0.58 | 0.05 | 0.62 | 0.06 |
| ***Total (N=60)*** | 0.61 | 0.07 | 0.60 | 0.07 | 0.60 | 0.07 | 0.63 | 0.05 |

### 4.9.3. Pre-test Performance

Based on the results obtained from different SPANOVA model, there was no significant difference between the direct CF group, the indirect CF group, and the control groups regarding their lexical diversity during the pre-test stage *($F$ (2, 57) <1, $p$ =.762, $\eta_p^2$ =.00).*

## 4.10. Effects of Comprehensive Corrective Feedback on Lexical Diversity

The following sections present the results obtained from the comparisons among experimental groups and control group considering the four-time stages of the experiment. The results showed the effectiveness of written corrective feedback on learners' lexical diversity on the revision stage, the immediate post-test stage and the delayed post-test stage.

### 4.10.1. Revision Effects, Short Learning Effects and Long Learning Effects

Over the different points of time, the students' lexical diversity for the whole sample analysed by the SPANOVA test and the finding were as the follows: on the revision stage *($F$ (2, 57) = 2.65, $p$ = .079, $\eta_p^2$ = .09),* on the immediate post-test *($F$ (2, 57) = 2.941, $p$ = .061, $\eta_p^2$ = .09),* and finally on delayed post-test *($F$ (2, 57) <1, $p$ = .476, $\eta_p^2$ = .02).* At the pre-test time, no significant differences were recorded between the direct CF group, the indirect CF group, as well as the control group. As the SPANOVA model was followed by comparison tests using the *post hoc pair wise comparisons with Bonferroni correction* to compare between the direct CF, the indirect CF groups and the control group

as has shown in ***Table 4.19***. The findings determined that no significant difference was found between the direct CF group and the control group in relation to lexical diversity during the revision time. However, the significant difference was found between the two experimental CF groups on the revision stage; the direct CF group used more lexical variety than the indirect CF group *(p = .038, Cohen's d = 0.78).* On the immediate *post-test*, the comparison tests between experimental CF groups and the control group revealed that lexical diversity reached no significant difference. When the two experimental corrective feedback groups were compared, the direct corrective feedback group's lexical diversity was better and the difference between them and the indirect corrective feedback group was significant *(p = .022, Cohen's d = 0.69).* Finally, no significant differences between all groups were noted on the delayed post-test.

Within- subjects factor and running the *post hoc pair wise comparisons with Bonferroni adjustment*, as has presented in ***Table 4.20***, indicated that learners' lexical diversity of the direct CF group was significantly increased on the delayed post-test compared with their lexical diversity on the pre-test stage *(p =.034, Cohen's d = 3.30).* The lexical diversity of the indirect corrective feedback group significantly reduced during the revision time *(p =.004, Cohen's d = 0.77)* and on the immediate post-test *(p =.025, Cohen's d = 0.76)*. However, the indirect CF group's lexical diversity increased on the delayed post-test and reached significant differences compared with the revision stage performance *(p =.002, Cohen's d =0.99),* and with immediate post-test stage *(p <.001, Cohen's d = 0.99).* The control group's lexical diversity increased on the final stage of the experiment and it was significantly different from their lexical diversity on the pre-test *(p =.015, Cohen's d = 0.67).* The lexical diversity of the experimental groups -direct CF group and indirect group, besides the control group's lexical diversity increased six weeks after the delivery of corrective feedback compared to their performance on different stages during the experiment.

**Table 4-19 Summary of significant contrasts between Feedback groups in lexical diversity with associated Cohen's *d* effect sizes**

| Time of Testing | Lexical Diversity | Cohen's *d* effect sizes |
|---|---|---|
| **Revision Stage** | *DIRECT > INDIRECT | *0.78* |
| **Immediate Post-test** | **DIRECT > INDIRECT | *0.69* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

**Table 4-20 Summary of significant contrasts within Feedback groups in lexical diversity with associated *p* value**

| Groups | Lexical diversity | P value | Cohen's *d* effect sizes |
|---|---|---|---|
| **Direct** | *delayed post-test > pre-test | *.034* | *0.89* |
| **Indirect** | **pre-test > revision | *.004* | *0.76* |
| | *pre-test > immediate post-test | *.025* | *0.76* |
| | **delayed post-test > revision | *.002* | *0.99* |
| | ***delayed post-test > immediate post-test | *.000* | *0.98* |
| **Control** | *delayed post-test > pre-test | *.015* | *0.99* |

*p< .05, **p< .01, ***p< .001 Cohen's d (1988), the effect sizes can be small d= 0.01, medium d= 0.059, and large d= 0.138

## 4.11. Discussion

The statistical analysis presented in the previous sections on the data set showed that the effectiveness varied depending on the type of corrective feedback provided as well as on the time. The findings of this study indicate that comprehensive written corrective feedback did not only facilitate accuracy during revision time, but also the accuracy development occurred over time, thus, this does not support Truscott's claims. The results also reveal that the provision of corrective feedback did not result in simplicity of structural and lexical complexity in learners' written texts.

### 4.11.1. Comprehensive CF and the Potential Language Learning

The current research aimed to explore the effectiveness of written comprehensive corrective feedback on students' overall accuracy, structural complexity and lexical diversity. The outcomes revealed that students are able to use unfocused CF to improve the linguistic correctness of their texts during revision stage (RQ1). A good quantity of previous research, which has investigated the impact of CF only on revision regularly reported this finding (e.g., Ashwell, 2000; Fathman & Whalley, 1990; Ferris, 1997; Ferris & Roberts, 2001; Van Beuningen et al., 2008; Truscott and Hsu, 2008; Van Beuningen et al., 2012). Although several studies have already found that focused corrective feedback that is provided for specific error types enables students to accurately use the targeted form in new texts (e.g., Bitchener, 2008; Bitchener and Knoch, 2008, 2009, 2010a, 2010b; Sheen, 2007; Sheen et al., 2009; Ellis et al., 2008) the findings of this study confirmed the findings of Van Beuningen et al., (2012) that comprehensive corrective feedback not

only led to improved accuracy in revised texts, but that it also sustained a learning effect, in other words, comprehensive CF improves learners' accuracy and enables them to produce more accurate new pieces of writing (RQ2). The study finds that learners who were provided with comprehensive CF made significantly fewer errors when they wrote new texts than students who did not receive CF but only general comments. The benefits gained from unfocused CF provision appeared to be long-lasting in that the students' accuracy improvement was clear both in immediate post- test and the delayed post-test, which respectively took place one and six weeks after students' errors were corrected. This learning advantage was revealed by medium effect sizes of comprehensive CF in post-tests.

### 4.11.2. Interactions between Feedback Methodology and Error Type

Besides investigating the overall value of comprehensive CF, the study also explored the relative effectiveness of corrective methodologies i.e. direct and indirect, and the different effects of CF types on grammatical and non-grammatical error types (RQ3). While previous research has found that the direct CF has more benefits on grammatical errors and the indirect CF effectively improved non-grammatical errors (e.g., Van Beuningen et al., 2008; Van Beuningen et al., 2012), the important contribution that this study makes to the existing literature, however, relates to the effectiveness of the indirect correction in promoting durable grammatical accuracy development of a medium size, and for the non-grammatical accuracy improved from both the direct and the indirect CF. Although Lalande's (1982) study of 60 intermediate German FL learners reported an advantage for indirect feedback over direct error correction, there were no statistically significant differences between-groups recorded. Lalande (1982), furthermore, pointed out that indirect CF is desirable because it requires reflection and problem-solving on the part of the learner, resulting in more long-term growth in self-monitoring ability. In addition, Ferris' (2006) explorative study of the efficacy of focused CF found that ESL students made a significant reduction over time in verb form errors which were corrected indirectly. Ferris, therefore, suggested that indirect CF was more beneficial to grammatical accuracy improvement than direct CF.

Like many of the early studies that investigated the effectiveness of written CF focusing on helping writers improve the accuracy of their drafts (e.g., Bitchener and Knoch, 2010b; Van Beuningen et al., 2008 & 2012), the present study explored the effectiveness of both direct and indirect CF on learners' grammatical errors during revision and the findings

revealed indirect CF had more positive short-term effects (i.e. on immediate post-test stage) than direct CF. The results also show that both direct and indirect CF had equally positive impacts on learners' non-grammatical errors during revision time. Furthermore, the learners show evidence of a potential long-term learning when their grammatical and non-grammatical errors directly and indirectly corrected. Direct CF facilitated the long-term learning of non-grammatical errors, which learners received feedback on, as well as it had longitudinal effectiveness on students' grammatical errors. Hence, the study results indicate that both grammatical and non-grammatical errors are differently amenable to CF: direct corrections are more suitable to the non-grammatical errors and indirect correction are more suitable to both grammatical and non- grammatical errors. The findings also reveal that only the indirect corrective feedback is likely to return long-term grammatical and non-grammatical accuracy advantages.

### 4.11.3. The Possible Harmful Side Effects of CF

Referring back to Truscott's (1996, 2004, 2007) claims that CF influences negatively on the structural complexity and lexical diversity in learners' writing, the findings opposed these claims and found no difference between groups over time regarding their structural complexity. It was also noticed that the direct group wrote more complex sentences in their new pieces of wring during the immediate post-test than in the revision. Moreover, the exposure to CF methodologies showed no significant difference in lexical diversity between CF groups and the control group and no lexical diversity changes were noticed over time. The difference between experimental groups was seen during the revision and the immediate post-test, where the direct group produced more lexically complex texts. On the delayed post-test, the direct group showed significant increase in their lexical diversity compared to their lexical diversity during pre-test. The indirect group's lexical diversity increased in the delayed post-test comparing to the revision and immediate post-test.

In summary, as it was explained in the previous sections, results showed that all the learners who had a chance to revise their writing products (i.e. students in the direct and indirect groups) produced fewer errors in their revisions than in their initial texts and the accuracy gains made by them turned to be significant. Moreover, comparison tests revealed that both learners who received direct correction and learners whose errors were indirectly corrected significantly outperformed learners who received general comments in the control group. Besides, the results showed a significant difference between the

direct CF group and indirect CF group. In other words, the outcomes pointed out that direct CF has superior short-term effect on learners' overall accuracy to the provision of indirect feedback.

In this study, not only the short-term efficacy of CF was aimed at exploring but also the long-term effectiveness of comprehensive CF. The findings showed that both direct and indirect CF proved to have long-term effect on student's overall accuracy when they produced new pieces of writing. Tests of comparisons between groups yielded a significant difference between CF groups and the control group. Although there was no significant difference between direct CF group and indirect CF group, the results showed that indirect CF had positive effects on the subsequent written tasks.

Considering the CF responsiveness of different error types, the results revealed that grammatical errors and non-grammatical errors are amenable to CF and benefit from different types of corrections. Both direct and indirect CF groups improved their grammatical accuracy during the revision. This was obvious as learners from CF groups made fewer grammatical errors in their revised texts than the grammatical errors they made in pre-test. Comparison between groups showed significant difference between CF groups and control group regarding grammatical errors. The same results obtained when learners produced new written tasks one week after CF provision. The difference between direct and indirect CF groups did not reach significance. Based on the findings, both direct and indirect CF potentially yield short-term and long-term grammatical accuracy advantages, however, only indirect corrective feedback showed significance in the delayed post-test. The non-grammatical errors responded equally to direct and indirect CF methodologies during revision. The number of non-grammatical errors in learners' revised drafts was fewer than it was in their initial writing. Between groups comparison showed the difference between both CF groups and the control group was significant during revision. Correspondingly, non-grammatical accuracy gains were visible both in immediate post-test and the delayed post-test. Receiving direct and indirect CF proved to be more beneficial than the control group. The delayed post-test results indicated large effect for the advantage of direct corrective feedback over indirect error correction.

The possible avoidance of complex structure due to error correction also was tested. Results showed that no significant difference between direct CF group, indirect CF group and the control group. However, the findings indicated that there were significant differences located in direct CF group regarding their structural complexity. Direct CF

students' performance on the immediate post-test significantly differed from their performance on revision stage. In other words, direct CF learners' writing during the immediate post-test (i.e. when writing new texts after a week of CF delivery) was structurally more complex than their writing on the revision stage.

Likewise, findings determined no significant difference found between direct CF group and the control group associated with lexical diversity in students' revised drafts. Whereas, a significant difference was found between the two experimental CF groups on the revision stage; direct CF group produced lexically more complex texts than indirect CF group. The comparison tests between experimental CF groups and the control group showed no difference on the immediate post-test. The comparison tests conducted between direct and indirect CF groups, however, showed significant difference between them in the benefit of the direct group. Finally, the comparisons showed no significant differences between all groups on the delayed post-test. However, the results of the comparisons indicated that learners' lexical diversity of the direct CF group was significantly improved on the delayed post-test comparing with their lexical diversity on the pre-test stage. Furthermore, lexical diversity of indirect CF group developed on the delayed post-test and reached significant differences comparing with the revision stage and the immediate post-test stage.

## 4.12. Concluding Remarks

The results showed significant effect of the two different types of corrective feedback - direct and indirect on students' overall accuracy. It also showed how different types of corrective feedback impacted differently on different types of students' errors - grammatical and non-grammatical errors. However, it remains unclear to which degree students' overall accuracy are attributed to the corrective feedback. In addition, the findings of this research showed that learners' structural complexity developed overtime. For instance, direct corrective feedback group wrote more complex sentences in their new texts than in their revision. This is probably because when they were implementing corrections were more conservative, but they felt encouraged to use more complexity on future pieces. The following chapter addresses these issues on how students reflect on their knowledge about errors and strategies for applying feedback, how they self-monitor their writing on subsequent texts, and how personal and contextual factors might influence their ability to benefit from written corrective feedback. A detailed qualitative analysis of learner's accuracy performance over time along with quantitative accuracy

measures in the previous chapters might give a clearer complete and accurate picture of the accuracy gains brought about by comprehensive written corrective feedback.

# Chapter 5. The Qualitative Data: Cross Cases and Within Cases

## 5.1. Chapter Overview

This chapter concentrates on the findings obtained from the case study analysis, where the interviews were conducted after the quasi-experiment. The previous chapter presented the results gained from statistical analysis of the data set, which revealed the changes occurred in students' accuracy on different points of time. It also showed effects of two different corrective feedback on grammatical and non-grammatical errors as well as on structural and lexical complexity. However, some other issues cannot be identified by employing only a quantitative methodology, thus, a case study methodology was used to provide to some extent in-depth understanding of *what, how*, and *why* individual learners' errors change over time after receiving comprehensive feedback- direct and indirect. The interviews enabled me to explore the participants' responses to these questions and understand more about the changes that occurred in their performance over time of the writing of the cohort receiving comprehensive feedback. It provided real examples from FL learning contexts and enabled me to "see the situation from the eyes of participants" (Cohen et al., 2007: 253). This chapter begins with the general findings, a description of students' reports about corrective feedback experiences, their background, their strategies, the difficulties they encountered when dealing with CF as well as their attitudes toward comprehensive corrective feedback. Then the findings obtained from the individual five cases are presented with the concluding remarks in the end of this chapter.

## 5.2. Common Characteristics in Students

The date set obtained from the case study was treated in two stages: cross case analysis and within case analysis. Under this section, the themes which were produced from cross cases analysis, which focused on the general characteristics cross the participants. These themes included some issues such as error categories, revision behaviour and self-correction strategies, revision experience, former grammar and recent grammar instructions, students' attitude, their strategies and difficulties when dealing with comprehensive corrective feedback.

### 5.2.1. Error Categories and Accuracy Development

As has been explained in chapter 3, there were nine participants who took part in the case study ***(see 3.3.9)***. Each three students were from one group: direct group, indirect group and the control group. They were selected based on criteria as explained in ***3.3.9***. It is noticeable that individual learners made some kind of accuracy development and progress over time. In other words, learners' development and progress can be seen as when some specific error categories noticed as repeated and challenging at the beginning of the experiment either becoming less repeated or disappearing completely in the later writing tasks. ***Tables 5.1, 5.2 & 5.3*** show the percentage of how the error rates changed in the direct, indirect and the control groups over time. While some participants were able to reduce their error rates, others were not able to do so and their error rate became even worse. Furthermore, there were also those who showed no change at all over the time of experiment. Following these observations, the nine participants were selected to be interviewed to have a close look and deep insights about the behavioural and cognitive factors that affected learners' error rates changes.

**Table 5-1 Percentage of error rates of the direct group over time**

| Direct Group | Initial task Week one | Revision task Week two | Immediate post-task Week three | Post-task Week eight |
|---|---|---|---|---|
| **Grammatical** | *10%* | *5%* | *6%* | *8%* |
| **Non-grammatical** | *6%* | *2%* | *3%* | *3%* |
| **Overall accuracy** | *16%* | *7%* | *9%* | *11%* |

**Table 5-2 Percentage of error rates of the indirect group over time**

| Indirect Group | Initial task Week one | Revision task Week two | Immediate post-task Week three | Post-task Week eight |
|---|---|---|---|---|
| **Grammatical** | *10%* | *6 %* | *6%* | *6%* |
| **Non-grammatical** | *6%* | *3 %* | *4%* | *3%* |
| **Overall accuracy** | *16%* | *9 %* | *10%* | *9 %* |

**Table 5-3 Percentage of error rates of the control group over time**

| Control Group | Initial task Week one | Revision task Week two | Immediate post-task Week three | Post-task Week eight |
|---|---|---|---|---|
| **Grammatical** | *10%* | *9%* | *9%* | *8%* |
| **Non-grammatical** | *6%* | *5%* | *5%* | *6%* |
| **Overall accuracy** | *16 %* | *14%* | *14%* | *14%* |

### 5.2.2. Revising Behaviour and Self-Correction Strategies

After writing the first text, the learners received their texts with either error corrections or error indications for the experimental groups; and general comments for the control group. In the interview, most of the participants reported that their initial strategy during revision was simply to read throughout their returned texts that were provided with direct error corrections, error circles or general comments.

**DS1:** *"I read the text twice and looked at my teacher's corrections and read them carefully."*

**DS2:** *"I read my writing and I saw a lot of red words on my paper…"*

Some students revised their texts by reading carefully and focused more on their teacher's corrective feedback.

**IDS1:** *"I read my text very carefully and then I read it again with attention on the words in the circles.*"

**IDS2:** *"I read the text and looked at the circled words and I knew they were not correct."*

**IDS3:** *"I read the texts and I focused on the circled words."*

Some students only focused on the teacher's corrective feedback and thought about how to correct their errors.

**CS1:** *"I carefully read my teacher's comments and try to go through the text to find what she wanted me to do."*

However, some students reported that they started writing the same topic without revising the returned texts and rewrote about the same topic:

**DS3:** *"I didn't revise the text. I looked at red corrections and then I started to write the same topic again."*

**CS2:** *"I looked at it without reading it and rewrite it immediately."*

**CS3:** *"I looked at the text without concentration and then I started writing the same topic."*

Concerning the self-editing strategies, two participants from the direct CF group stated that they read the errors corrections many times and copied their teacher's correct forms in the revised text:

**DS1**: *"I copied some of them because some of my teacher's corrections were not easy to read when I asked her to help me she was busy with another student."*

**DS2:** *"I copied the whole text and I replaced the wrong words with my teacher's corrections."*

The other interviewees from the indirect corrective feedback group and the control group reported that they wrote their texts and made the corrections to the errors in the initial texts according to what "sounded right" to them or tried to apply previously learned rules (either from secondary school and/ or during the study).

**IDS1:** "*I used both relying on what sounds right and remembering the grammatical rules."*

**IDS2:** *"When I made corrections, they were based on a particular rule I learned."*

**CS1:** "*I revised some sentences, I changed some grammatical parts according to a particular rule, for the words amendment I was thinking about what sounds right."*

**CS2**: *"...I used both what sounds right and remembering a learnt rule, especially if it was grammatical error."*

Furthermore, some students used other different strategies to correct their errors with the previous mentioned strategies of what "sounded right" to them or tried to apply previously learned rules (either from secondary school and/ or during the study) such as changing the words and forms they failed to correct, and rewriting the texts with new ideas.

**IDS3:** *"Some errors I tried to change by remembering a rule to help me using the correct form. Sometimes, I didn't know how to correct the errors and tried to change the word or just repeated it because I thought that was the correct form you can say by guessing."*

On the other hand, a student from the direct group reported that he did not read the teacher's corrections and did not try to make any corrections to the errors occurred in his writing, instead he wrote a new text about the same topic.

**DS3:** *"I ignored them because I couldn't read them."*

Finally, the data showed that a few participants stated that they asked their teacher for help to understand the feedback and comments and they reported that:

**SD1:** *"...I asked my teacher about the ones that I didn't know because I learn from my error and mistakes."*

**CS1:** *"...I asked my teachers to explain some errors and I corrected them, but I left the ones that I didn't know."*

Based on the statistics presented in Chapter 4, students' overall accuracy was significantly improved, and students produced more accurate texts during the revision stage. This could imply that learners included their teacher's corrective feedback in their revision, and this supports Ferris' (2006) findings.

### 5.2.3. Revision Experience

In terms of the effectiveness of the revision stage, the majority of the interviewees expressed their preference for the idea of writing and revising their work the following lesson. They admitted that it helped them to know their progression and some participants asserted that revising and self-correction could make them more responsible for their learning.

**DS1:** *"I think it was the best thing…"*

**DS3:** *"I think it would be good to know the errors and correct them."*

**CS3:** *"It was an effective way to revise your writing and to know your teacher's feedback…"*

Some students expressed their opinion towards the revision experience and explained that by giving some explanations such as revision practice enabled them to find their errors and helped them to think how to correct their errors.

**IDS1:** *"The revision step was very helpful. I was able to find out about my errors and then write the same topic. I hope our teacher use this step with us all the time."*

**IDS2:** *"I think that part was good because I read my work again and rewrite it depending on myself to correct my errors..."*

**IDS3:** *"I was useful because it helped me to check my errors and think about how to correct them."*

**CS1:** "*It was really effective and very essential for us as students to understand and know about our errors and to correct them. I also think it is significant for the teacher to ensure that learners make use of her correction. Normally we take the written texts back with corrections and never look at them."*

### 5.2.4. Former Grammar and Recent Grammar Instructions

All the students stated that they had received grammar instruction while in secondary school. Moreover, the vast majority of the interviewees felt that their secondary English classes were highly-grammar focused.

**IDS2:** *"Grammar was very important lesson, when were at the secondary school we thought English is only grammar and reading, we had very intensive grammatical background at secondary school."*

**IDS3:** *"We had very intensive grammar lessons and I think we took all the grammatical rules…"*

**CS2***: "We had very intensive grammar lessons during the secondary school study. All the text book was about learning grammar and reading."*

**CS3:** *"We studied grammar all the time. Every English lesson, our teachers started it with a list of new vocabulary, a grammar rule and then a reading passage. We took most of the grammatical rules of the English language."*

Some students explained the importance of the grammar lessons during the secondary school education and reported that English teaching was exam-oriented, which mainly focused on grammar and students were examined based on their grammatical competence.

**CS1:** *"The grammar lessons were the most important lessons in the secondary school. The final exams focus on the grammar and reading so the teachers mainly concentrated on teaching grammar and reading."*

The participants were also asked about the grammar lessons in the university, the majority responded that their grammar lessons at the university are similar to the ones they had in the secondary school. Most of the students recognised the necessity of grammar instructions in writing classes and thought that learning grammar would improve their writing in English. They mentioned that they have grammar as an isolated subject in the first and second year during their university study. They believed it would be beneficial if the teachers integrated it with writing and conversation subjects.

**DS1:** *"…I mean we can practice grammar with writing and conversation subjects."*

**DS2:** *"I think if they teach us grammar through writing and speaking is better because we had very intensive grammatical lessons at secondary school. What we need now is practice and use it in an appropriate way."*

**IDS2:** *"I like the way of teaching grammar when writing teacher or oral practice teacher explain the rules and then let us practice them in real contexts. In general grammar is very significant aspect to learn the language."*

However, most students also felt that such input of learning grammar has not ultimately been very useful for them. Although, all students said they often have understood it and they have enjoyed grammar lessons and have done well on the test, they attested that English grammar is a challenge to use properly when they speak or write.

**IDS1:** *"we should be well prepared and have very good knowledge about English grammar and its use because this is the most difficult aspect about grammar."*

**IDS3:** *"The problem is we know the rule but how to use the grammar in writing or speaking is difficult."*

**CS1:** *"I think the way we learn it is not the right way, I think if they could give us use of the grammar not learning about it."*

**CS2:** *"… grammar is very important because we need to use it in our communication. I think my problem is I memorise the grammar rules, but I don't know when and how to use them whether in speaking or in my writing."*

**CS3:** "*Grammar is the most significant part of every language. We should learn how to use it in speaking and in writing."*

These findings indicate that the excessive exposure to the grammatical rules could shape learners' preferences to the focus of corrective feedback. Based on the previous studies

findings, the EFL teachers' extensive focus on language forms could lead to form their learners' attitudes towards writing in general and the focus of error corrections in particular (e.g., Leki, 1991; Saito, 1994; Enginarlar, 1993; Lee, 2005; Diab, 2005a; Diab, 2006; Amrhein & Nassaji, 2010; Hamouda, 2011).

### 5.2.5. Prior Writing and Feedback Experience

Some of the participants noted that writing lessons were simple and as they had to write a few sentences about a topic chosen by their teacher to practice grammatical rules. Some even mentioned that writing was neglected and barely given importance by secondary school teachers. They said that their teachers think that writing lessons are time consuming and their focus is to cover the important parts of the curriculum that included in the final examinations.

**DS1:** *"My writing class was a kind of traditional one... We had regular classes for English every week, but writing lessons were not fixed ones."*

**DS2:** *"In our text book at the secondary school, there were sections of speaking and writing in the end of each unit, but we rarely did them."*

**IDS1:** "*The writing part was slightly simple which focused on writing simple pieces of work that describes some activities and using different tense forms and other grammatical structures."*

**IDS2:** *"… The other skills were neglected because of the number of the students and the exams are always about grammar…"*

**IDS3:** "*The writing lessons were occasionally. I mean every unit in the book had reading, writing, listening and speaking skills. To be honest, teachers always tried to avoid writing lessons and consider them as a wasting of time because the English inspector always warned them to cover and finish all the syllabus before the end of the year. So, the teachers used to focus mostly on grammar and reading and homework than speaking and writing. Sometimes they asked us to do the writing part when we have English lesson the last lesson in the timetable or when the teacher had no desire to teach*."

When the participants were asked about the writing instructions in their secondary school, majority of them mentioned that their teachers provided them with a text whether to correct the grammatical errors or to fill in the gaps with the correct grammatical forms they learnt on that day.

**DS1:** *"The teacher used to give us a topic and asked to write some sentences about it; it was necessarily to include or rather use the grammatical rules that we learnt."*

**DS2**: *"… they asked us to write some sentences about the grammatical rule of that day, it was not real writing and I think this is the reason why all students think writing in English is the most difficult subject at university."*

**DS3:** *"The writing lessons were the grammar lessons. Our teachers gave us grammar and vocabulary explanation and then ask us to write some sentences to practice…"*

**IDS3:** "*When the teachers asked us to write, they asked us to answer the question in the writing exercise, which was often a text to fill in the gaps task."*

**CS1:** *"…They gave us a text with mistakes and asked us to find them and correct them. Sometimes they asked us to write some sentences about the topic of the reading text to practice the grammatical rules."*

As to feedback provision, the students held different views on the feedback they received in the secondary school. Most students said that teacher feedback on their writing had been too general and/or blurred or that teachers did provide them with many comments at all. There are also some students who received marks and/or grades.

**DS1:** *"Sometimes gave us general comments…"*

**DS2:** *"… provided me with a grade*."

**DS3:** *"General comments or sometimes by giving marks."*

**IDS1:** "*They sometimes gave us comments and marks on the homework/ exams and tests…"*

**CS1:** *"Sometimes with general comments or marks…"*

**CS2:** *"It was by giving me simple comments or marks."*

Some students expressed bitterness about having the feedback and how it made them anxious and frustrated. They reported that their teachers always gave them negative comments.

**IDS3:** *"…teachers usually gave negative comments that made me disappointed and not happy about my level."*

**IDS2:** *"I didn't read them. When my teacher commented on my work that means to me I am weak, and this makes me insecure about my level."*

**CS3:** *"Comments on the homework, quizzes and exams. Sometimes, our teachers gave general feedback to all students in the classroom about our level and progress. That was horrible."*

### 5.2.6. University Writing and Feedback Experience

One question of the interview explored the participants' current writing and feedback experiences. They reported that their writing lessons at the university are once every week. Regarding the writing curriculum, the interviewees said that there is no fixed syllabus or book to follow. They pointed out that their teacher is responsible for choosing the topics that they have to write. In view of the writing instructions, the students normally have pre-lessons to explain the topics before writing about them, which most of the students admitted that these lessons are very short and not enough to provide them with the knowledge they need for the topics. The participants also referred to their teacher's way of giving feedback as general comments, which were ignored by most of the students for different reasons.

**DS2:** *"…the way that at least we know we have writing as a subject. However, we don't have syllabus as you know from the experiment that the teacher chooses the topic and gives us some explanation before writing…"*

**DS2:** *"I don't think so. I mean we should have a discussion and generate our ideas to be ready to write about a topic. Some topics are hard to find the words to write about them because we don't have enough knowledge to do so."*

**IDS1:** *"No, we write only once. The teacher introduces the topic by explaining some grammar and some vocabulary and then asks us to write. Some topics we write them in timing writing in the classroom and the teacher collects the papers and gives them back the following lesson. Some topics we take time to write them and sometimes finish them as homework and then give them to the teacher to correct them. Some students write, and some do not."*

**IDS2:** *"General comments, which I think are not helpful because I don't understand her hand writing and there is no enough time to discuss the corrections with our teacher. She sometimes asks to raise our hands if we need help with them, but we feel embarrassed to ask. The teacher gives us two types of feedback: one which is personal feedback for one's work on how to improve - the second one is a general feedback which may include mistakes that the teacher noticed the majority of the class is making."*

### 5.2.7. Task Topics and Pre-Writing Instructions

The participants were asked about the task topics as well as the pre-writing instructions and their responses regarding the task topics varied. While some students reported that the tasks were easy to write, others showed concerns about some of the tasks and they elaborated that they were difficult to write about. They explained that the pre-lessons preceding every task were not enough to provide them with the knowledge they require to write about a topic:

**DS1:** *"They were in general good, but the one about difficult decision was quite hard. I didn't write that well… the pre-lesson was not enough to give me the background to write about a topic."*

**DS3:** *"They were hard to write about. I have the ideas, but I don't know how to write them, this is my main problem in writing… I don't think 15 minutes enough to explain about a topic to foreign students."*

**IDS2:** *"I think they were good topics to write about if we were prepared well. Some topics I have nothing to write about, I mean I don't have the knowledge and the vocabulary."*

**CS2:** *"I was able to write about the first topic, but the two other topics were a bit difficult to write about…I told you that my problem is I don't have the knowledge about the topics and the preparation task before every writing is not sufficient to write about the topic."*

**CS3:** *"I faced difficulties to write about the topics because I didn't have the knowledge about them. I was not sure about the vocabulary I used. I have a problem to think in English."*

However, some students reported that although the pre-writing lessons were short, they learned a new technique by which they wrote some notes from their teacher's explanation and that helped them to generate their ideas, organise them and then build up on them.

**DS1:** *"during the pre-writing lesson, I wrote down some ideas that helped me to add more during my writing…"*

**IDS1:** *"I asked my teacher some questions during the pre-lesson and these questions helped me to understand the topic..."*

### 5.2.8. Limitation of Timed Writing

In their interviews, all of the participants referred to their new experience of timed writing as a hard task. They discussed time constraint as a main restraining factor in their

ability to use formally learned or informally acquired language to their written texts. During the experiment, they were give a number of words of 200-250 words when writing their tasks, however, some learners deliberately shortened their writing and ignored it because they knew they would not have be graded on. Other students tried to reach the word limit, but they could not because of the time. Others gave reasons of writing short texts in all experiment tasks and explained that they felt embarrassed by the number of errors which they felt they were probably making and confirmed that they would have been able to revise and correct at least some of their errors if they were given more time and space to do so.

**DS1:** *"It was very difficult to write under the pressure of time. I could not concentrate well."*

**DS2:** *"It was really hard because it frustrated me, and I could not think well while writing. I was only writing fast to reach the number of words and I had no time to revise my writing in the end."*

**DS3:** *"I wrote, and I stopped when the teacher asked us to put down the pens. I didn't finish."*

**IDS2:** *"It is very hard to write about a topic in a limited time. I can't concentrate on what I want to write about."*

**CS2:** "*It is very hard task because we need time to generate our ideas and organise them and write them in logical and understandable way."*

**CS3:** *"I have problem even when I write in Arabic, I write slowly. Timed writing is a hard task."*

### 5.2.9. Limitations of Non-Drafting Writing

Learners also expressed that they were expecting to have a similar experience of having the second writing with corrections and then revising it and rewrite it. In other words, the students thought they would get their corrected drafts back for the second and third tasks and would have the chance to rewrite it and they were disappointed that they did not have chance to do so. Some interviewees appreciated the multi drafts approach. They claimed that writing more than one draft encourages them to revise their initial work. They explained that a one-draft piece of writing will receive little attention from them as they will get involved in doing new writing and forget what they have written. They also pointed out that when they write one draft and their teacher gives feedback on it, most of

the students receive the work, which immediately hide the work when they receive it without revising it and/or reading their teachers' feedback as they start writing about a new topic.

**DS1:** *"…and we asked our teacher to write all our tasks in multiple drafts, but she said she cannot do that because of the number of the students that she will not be able to correct all the drafts."*

**DS3:** *"… we write only once, and she collects them and gives them back with comments. I think this way is not beneficial for the students because once they get their work back, they forget about it. I mean writing more than one draft about the topic would enhance our knowledge about it as well as it would help us improve our writing as we learn from our mistakes."*

**CS1:** *"… I also think it is significant for the teacher to ensure that learners make use of her correction. Normally we take the written texts back with corrections and never look at them. If we were asked to write many drafts about the topic, we would be engorged to read the teacher's feedback and know more about our errors."*

### 5.2.10. Students' General Feelings and Attitudes towards their Level in Writing

In the interview, the students were asked to describe their strengths and weaknesses in writing and their answers were varied. While most of them were quite thorough in discussing their difficulties, some could not identify a single strength.

Some students had positive attitudes towards their level in writing. They believed that writing in general is a demanding task, however, they wanted their teacher to identify their weaknesses in writing in order to improve them.

**DS1:** *"My teacher likes my writing pieces; however, I think it is always difficult for foreign language learners to write and express their ideas the way they do when write in their own language. My weakness in writing is how to organise the ideas in the way that the reader readily understands me. Although my strengths are, I have a lot of vocabulary and expressions in my mind, I face challenges to use them properly. This is how I see my abilities in English writing."*

**DS2:** *"My writing is getting improved over time. In every writing lesson, I learn new ideas and try to use them in my writing. I can't say I'm excellent at writing or I'm weak, I am in the process of learning. Although I understand the grammatical rules, I think my*

*weakness is that I am unable to finish an accurate piece of writing due to the lack of how to use grammar in sentence structures to give the right meaning. I have a good sense of choosing the right vocabulary and words in my writing. This opinion comes from my teacher."*

**CS1:** *"I'm quite confident about my writing. However, I still have some problems that need improvement. I'm good at generating ideas and write in a comprehensive way. I think my challenges are in grammar."*

Other students reported that their writing abilities in English was humble and they had different challenges in both language and structure of ideas.

**DS3:** *"My writing was at first absolutely horrific I didn't know how to write in full sentences or how to write a short paragraph. I think my writing is not so bad. Firstly, my strengths in English writing are simple sentences, commas, and full stops, I mean punctuations, but not all of them. Secondly, my weaknesses are the spellings like academic words/high level words for example, (attitudes) and complex grammatical structures, I'm not good at grammar. Finally, my teacher had told me that the aforementioned are my weaknesses and strength."*

**IDS2:** *"I don't feel confident about my writing ability. It's mainly because I don't write and practiced writing a lot of writing tasks at university and at home. My weaknesses are using different vocabularies, various sentence structures and writing techniques. I'm also not confident about my grammar in writing. Besides, I'm not completely confident regarding my punctuation since I tend to make a few silly mistakes."*

**IDS3:** *"I think I still need a lot to become good at writing. Although, I think I am good at grammar rules, I still find it difficult when I want to apply them in writing or speaking. The other weakness is how I can write in the way that I could link the ideas and easily convey what I intend the reader to understand. These are my opinions".*

**CS2:** *"I think my writing is not good and I am ashamed of myself that I cannot write what I feel, and I cannot express my ideas in a clear way. My strengths: I can remember all the rules that I have learnt before writing but I cannot use them in the correct way. Moreover, I cannot write anything comes to my mind because sometimes I do not know the exact vocabulary, this is my opinion."*

**CS3:** *"I think it's not good. I have problem in writing to communicate what I want to express. My writing is a kind of translation from Arabic into English. I also don't tend to use sophisticated vocabularies. These are my opinions."*

Some students said that their writing was improved after having some additional courses and explained their areas of development.

**IDS1:** *"At the current level at the university, my writing was improved after having different additional courses in English during summer holiday before starting in the university. The strengths of my writing include: organisation, different vocabulary, advanced grammatical structure. On the other side, my weaknesses are punctuations and coherence."*

### 5.2.11. Reactions on the Feedback Provision

In contrast to the negative views expressed about their writing classes (in secondary school) and about their present situation in the university, the students were without exception extremely in agreement that feedback is essential for improving their writing skills. Most of them asserted that feedback aids them to recognise their errors and helps them to learn more about them in order to avoid them in their future writing. Others claim that when they do not receive feedback, they feel that they are neglected by their teacher. Therefore, it seems that participants' positive attitudes towards feedback probably suggested that feedback has a positive effect in encouraging their English learning and improving their writing skills in particular.

**CS1:** *"…because students need to know their progress during leaning."*

**DS1:** *"…, getting feedback from the teacher always opens my eyes to the correct forms and this helps evade repeating the mistakes in my future writing efforts. I believe a good teacher is the teacher who monitors his/her learners' progress and I think feedback is a method should be used by all the teachers to help their students improve."*

Some students explained that if they do not receive corrections on the errors in their written work, they might think that the texts they have written are correct, which may make them repeat the same errors.

**DS1:** *"…when I don't find corrections on my writing, I will think that all I have written is correct."*

There are also some students who explained that feedback motivates them to study and improve their level in language.

**IDS3:** *"…they are significant elements in the writing. When my teacher reads my writing and provide me with the comments, I feel that my teacher considers my progress in the subject."*

**IDS1:** *"The teacher's feedback encourages me to do my best to enhance my writing abilities. To be honest, I think of my future as a teacher, I would like to be perfect in front of my students. I still remember my English teacher wrote an incorrect word on the board and all the class were laughing at her. I don't want to be in the same situation. That's why I want to improve myself and consider my teacher's feedback."*

Some students also believe that feedback is a source of knowledge that provides them with structures and vocabulary needed for their writing

**DS2:** *"I think teacher's feedback work as a guidance which helps students to consult whenever s/he needs to. They also help students to know their challenges and try to face them either by teacher's support or studying hard."*

**IDS2:** *"I recommend using feedback in writing classes because it helps students explore different possibilities and take in different suggestions on how to improve their work."*

**CS3:** *"Yes, because it will help all students to improve and learn from their mistakes."*

One student linked the impotence of receiving corrective feedback with its explicitly. He thought that corrective feedback would be useless when teachers provide it in unclear way as students will find it difficult to deal with it.

**DS3:** *"Sometimes they could be waste of time in my opinion when they are not clear. Feedback are important for our learning when the teacher provides them with discussion and recommendations of the ways of improvement."*

The learners also reported that the process of being corrected made them concentrated more carefully on applying the knowledge that they have already learned:

**DS1:** "*I become more careful especially about the errors that my teacher comments on. I also become aware of grammatical structures and I want to learn more how to produce them in a good piece of writing."*

**DS2:** *"I try to avoid making the same mistakes in future and try to not write anything I am not sure about. I have to improve my writing in general."*

**IDS1:** *"I think teacher's feedback enhanced my awareness of my weaknesses which I should pay attention in my future writing. I will study the grammatical rules especially verb tenses, have a good number of vocabulary and learn the spelling, try to increase my awareness of the language use by doing extra courses."*

**IDS2:** *"After having feedback, I definitely become more careful about my writing when using grammar, spellings and punctuation. I would always consider the feedback I've been given in my future writing as I keep my mistakes in mind to avoid them in the future."*

**IDS3:** *"I became more careful especially about the errors that my teacher highlighted. I become very careful about word spelling and start to use a dictionary while writing. I also write less to avoid making mistakes. Finally, I started proofreading after I finish my writing."*

### 5.2.12. Clarity and Ambiguity: Direct & Indirect

In terms of the types of corrective feedback, some students reported that they prefer to receive clear and direct feedback. The data showed that students who are in favour of the direct method thought that this type of correction attracted their attention to these errors and helped them to learn and remember them. They reported that the direct correction is easy to understand and clear, and it is less time consuming. They justified this opinion by saying:

**DS1:** *"I would strongly recommend using or giving detailed and clear feedback when editing students' work; otherwise, students would stay ignorant of correct forms or expression and their mistakes would normally appear whenever they write."*

**IDS1:** *"I prefer correcting them and providing explanations because by doing that I will never forget them."*

**CS1:** *"Feedback is really useful, and I'd like my teacher to correct my errors rather than circles them or comments on them."*

On the other hand, students opposing direct feedback strategy argued that indirect feedback encourages them to self-correction which they believed to be an essential element for developing their writing. These students explained that indirect correction encourages them to search for the correct forms to their errors and assists them to understand the nature of the errors as well as remembering them and not repeating them in their future writing.

**DS2:** *"I would prefer correcting errors without providing the correct forms by the teachers as providing them does not help in discovering what areas need to be improved…"*

**DS3:** *"I prefer marking my errors rather than correcting. When teacher corrects my errors, I will not be able to correct them by myself. When I try to correct them, I will search for the right answer and study hard to avoid committing them the next time. Also, that will give a clear picture to see some of my silly mistakes."*

**IDS2:** *"I would prefer my teacher to circle the mistake and I would correct by myself because this helps me to learn and improve."*

Furthermore, some interviewees preferred both techniques of direct and indirect feedback. The students believed that they should try correcting their errors themselves because that enabled them to know where their errors are and easily correct them. Their opinion of the direct method is that the direct corrections are more explicit, easy to apply as well as saving their time, and they reported that:

**CS2:** *"I think both can be effective ways. If the teacher marks my errors I will know where exactly I make them and then will be easier for me to correct them. Besides, if she corrects them by providing the correct form that will be easier and clearer. However, I still need to face-to-face tutorials in order to definitely understand them."*

### 5.2.13. Comprehensive Feedback and Focused Feedback

One aspect of the interview questions was about whether students like all errors to be corrected or whether their teacher should be selective. The participants held similar views in favour of comprehensive correction feedback. The students' responses suggest that these students preferred comprehensive feedback to focused (selective) error corrections.

**DS1:** *"I would like to have corrections on all my errors because I am not in the level that I can spot all my errors myself."*

**DS2:** "all errors need to be corrected. If my teacher does not correct them, I will think they are correct and I will repeat them again."

**DS3:** *"This is my first time to learn how to write, I would like to have all my errors be corrected. I always write, but I am not sure if what I write is correct or not."*

**IDS2:** *"I think all the errors should be marked if not I won't be able to recognise my errors by myself."*

**CS2:** *"Every error in my writing must be corrected because if my teacher does not show me where my errors are, I cannot know them."*

**CS3:** *"Yes, all my errors have to be marked. The teacher is the only source that can tell if my writing is correct or not."*

However, some students thought that having a lot of feedback on their papers means their level is very low and this may affect their motivation and their attitude towards language learning. This feeling comes from their background and culture that feedback means negative comments.

**DS2:** *"...I saw a lot of red colour on my paper which made me frustrated and confused."*

**DS3:** *"...Some students don't like to be corrected and they feel as if they are weak. That will affect their motivation and they start to feel frustrated and less confident because they try to do their best."*

### 5.2.14. Language, Content and Organisation

The data revealed that most of the interviewees required attention of their teacher's feedback on their grammatical, non-grammatical and other aspects of their writings such as organisation and content. They thought that to write a good piece of writing, it is essential to be grammatically correct, well organised and to communicate easily. Other students thought that feedback should emphasise the grammatical errors because they believed that they need to know how to use the grammatical input appropriately. They claimed that correct grammar is the most important aspect of any piece of writing, and they are not able to express their ideas and communicate them legibly to the reader without writing accurate sentences.

**DS1:** *"I would like my teacher to consider them all. I think that helps me become aware of grammatical structures. I also want to learn more how to produce a good piece of writing."*

**DS2:** *"Sometimes I have a lot of ideas, but I do not know how to organise them and write about them using accurate and appropriate language. So, I think all aspects should be considered and then discuss them with me."*

**IDS1:** *"I would like my teacher to consider them all. I believe to produce a good piece of writing is when become able to write a well-organised, accurate and communicated text, hopefully!"*

**IDS3:** *"I think the three points are very important elements for writing. We need to learn more about grammatical structures, how to organise our ideas and the content that makes sense to the reader."*

**CD1:** *"I would like my teacher to consider the grammatical sentences. I think good writing is when you use the grammar correctly."*

**CD2:** *"I'd prefer to have correction on my grammatical structures, I told you that we know about grammar rules, but we don't know how to use them."*

### 5.2.15. Oral Communication afterwards

One aspect which was repeated on different occasions during the interview with most of the participants was their need to discuss their errors and feedback with their teacher. Most of the interviewees consider this as a valuable stage for developing their writing skills. They thought that it might help them to discuss their weaknesses with their teacher who might suggest the guide they need to overcome their writing problems. They believed that it might help them to learn at a deeper-level about their errors and fully understand the feedback. The participants also suggested to have individual oral communication with their teacher after receiving feedback because they thought that might be a more focused as well as productive way to deal with feedback.

**DS2:** *"... because I think oral communication with my teacher after having error corrections will be helpful. Besides, when my teacher discusses my errors with me that will help me to understand them and to improve my future writing."*

**CS2:** *"It's important to have a discussion with the teacher about my progression especially in writing. If my teacher tells me what the areas of development are, I would study hard and consider them in order to avoid them I my future writing."*

**CS3:** *"discussing my weaknesses, my errors and feedback with my teacher is very important and it could be a useful way to improve my writing. I think feedback would be useless when the teacher doesn't ensure that learners make use and consider them as a way of learning."*

However, one student expressed her frustration and disappointment if he discussed his errors and feedback with the teacher, and he reported that:

**DS3:** *"I feel shy to discuss my errors with my teacher because I think she thinks I am a lazy student, but I'm trying my best to improve myself."*

### 5.2.16. Learners' Challenges while Processing CF

The participants were asked about the difficulties they encountered when they deal with written corrective feedback. The data revealed that their foremost challenge is difficulty in understanding their teacher's written feedback and comments. This problem appears as a result of the way of written corrective feedback provision that whether it was explicit or implicit. For example, some interviewees reported that they find difficulties in reading the teacher's direct corrections or comments due to the teachers' hand writing. Others stated that indirect correction by circling errors is not clear enough for the students to give them sufficient information about the nature of the errors and cannot guide them to correct them. Moreover, some participants said that their teacher's comments are general, and they find complications to find which part of written texts these comments refer to.

**DS1:** *"Some of my teacher's corrections were difficult to understand……"*

**DS2:** *"Some of the corrections were not clear as I mentioned. I mean my teacher's hand writing was not clear that's why I would like to discuss my writing with my teacher."*

**IDS1:** *"Some circled ones I couldn't know why the teacher treated them as errors…"*

*"…some circled parts were quite complicated."*

**IDS2:** *"The errors were vague I wasn't able to tell which errors I should correct and how I should correct them…."*

**IDS3:** *"… I didn't understand what the teacher wanted me to do."*

**CS1:** *"My problem is how to find them in my writing. For example, she comments 'be careful about word choice' I didn't understand what she meant."*

**CS3:** *"I didn't understand my teacher's feedback because they were general and not clear, this is why I stopped reading them."*

Very few students reported that they find their teacher's feedback easy to understand because these corrections focused only on grammar. This can be attributable to the fact: Libyan learners are familiar with the grammatical rules due to the excessive grammatical input during their study.

**DS1:** *"Yes, I understood some of my teacher's feedback because they were clear and direct. For example, when she gave me the correct form of the verb, I understood that the verb should be in the past not in the present form."*

**IDS2:** *"I find some of the feedback easy to understand as long as it's explicit and clear as it points out the error…."*

The other challenge facing the participants when processing the written corrective feedback is the time allocated to revise their texts. Most of the students claimed that the time given to revise and correct their errors presents a crucial aspect. The participants claimed that the time given to revise their work was very limited and not enough for revision and for making the corrections.

**DS2:** *"No, it was very short time to revise and rewrite the topic."*

**DS3:** *"Our teacher gave us only 30 minutes to revise and correct and rewrite the topic. I think it was not enough."*

**IDS2:** *"No, I was really frustrated to revise and self-correct my errors or rewrite the topic."*

**CS2:** *"…the time, however was restraint. She gave us fifteen munities to revise the texts and rewrite it. So, I had to write without giving attention to the teacher's comments."*

**CS3:** *"I think it was short."*

## 5.3. Summary of cross-cases analysis

To summarise all nine students made a wide variety of errors in their timed writing and the error patterns changed over the study. They said they mostly relied on reading and intuitions to make revisions/ corrections. Most of the students reported that they relied on what sounds right and used learned rules for self-editing. However, some students said that they asked help from their teacher. Despite having received formal grammar instruction in secondary school, most students stated that they still have difficulties in using grammatical structures accurately and properly.

All the students appreciated and valued the extra feedback and attention they were getting as part of the study and seemed to identify that feedback is a significant aspect for improving their language learning and enhancing their writing skills. They held different views about their preference for the different types of corrective feedback. While some students prefer to have simple indications about their errors, others expressed their preferences for receiving explicit and detailed feedback. However, their preferences for the amount of feedback are in agreement as most of them prefer to receive comprehensive corrective feedback that should be discussed with their teacher afterwards. Similarly, the

majority of the students liked to have feedback on the language, content as well as the organisation.

Concerning the challenges faced by students when they received corrective feedback, they believed that they were unable to monitor their errors effectively. They appeared to lack confidence about their writing as well as their self-corrections, therefore they would like to discuss their errors and feedback with their teacher. They highlighted some of the difficulties faced them while dealing with feedback such as they did not understand their teacher's feedback and difficulties to read the teacher's hand writing. They also acknowledged that time for revision and rewriting was their biggest obstacle aspect.

Regarding the task topic and the pre-lesson instructions, the task topics approved to contribute students' written performance, specifically, the level of knowledge about, interest in, and familiarity with. The students felt that the quantity of pre-teaching of the topics was not enough and preferred to have more time to discuss the topics with their teacher and classmates before writing about them. Moreover, they have a negative attitude toward the non-drafting writing. In other words, they preferred to write each topic in multiple drafts because they believe this way will encourage them to read their teacher's feedback and reduce their errors in new drafts by applying the knowledge they have already learned by corrective feedback.

## 5.4. In-Depth Insights into the Cases (Within Cases Analysis)

In this section, the five cases might add further depth and detail to the trends just presented. Initially, I intended to analyse the nine cases, instead I had chosen only five participants because these five participants provided more sufficient information during the interview than the other four participants who were not included in this discussion. The following sections consider two different sets of cases: students whose performance after receiving corrective feedback improved over time; and students who failed to develop their written accuracy during the experiment.

## 5.5. Cases of the Improved Students Overtime

Under this section, three students (i.e., one student from the direct group, one from the indirect group, and one from control group) who have some characteristics in common and they were labelled as ***(DS1, IDS1, CS*1)**.

### 5.5.1. DS1

*DS1* was one of the participants in this study who was provided with direct comprehensive written corrective feedback. During the experiment, she showed improvement regarding her overall accuracy as it has been shown in the error rate presentation in ***Table 5.5***. Furthermore, ***Table 5.4*** shows the number and the categories of the errors committed by *DS1* at different time stages. As can be seen from the table the errors committed on the pre-test stage reduced overtime. The following sections are the themes produced from employing within case analysis to explore accuracy changes in *DS1*'s error rate as well as to explore her behaviours, beliefs and attitudes towards corrective feedback, the difficulties she faced and the strategies she used when dealing with indirect corrective feedback.

**Table 5-4 DS1's error trends over time**

| Error type | Tasks over time and texts length per word | | | |
|---|---|---|---|---|
| | **Task 1/** ***152*** | **Revision/** ***158*** | **Task 2/** ***145*** | **Task 3/** ***125*** |
| **Contextual Spelling:** | | | | |
| *Misspelled Words* | 4 | 2 | 3 | 1 |
| **Grammar:** | | | | |
| *Misuse of Quantifiers* | 0 | 0 | 0 | 0 |
| *Subject -Verb Agreement* | 3 | 0 | 0 | 0 |
| *Incorrect Verb tenses* | 0 | 0 | 2 | 1 |
| *Verb phrase formation* | 0 | 0 | 0 | 0 |
| *Determiner Use (a/an/the/this/ etc.)* | 3 | 1 | 3 | 1 |
| *Wrong or Missing Preposition* | 3 | 0 | 0 | 0 |
| *Conjunction Use* | 0 | 0 | 0 | 0 |
| *Singular/ Plural* | 0 | 0 | 0 | 0 |
| *Possession* | 0 | 0 | 0 | 0 |
| *Word formation* | 4 | 0 | 0 | 0 |
| *Adjectives/adverbs* | 1 | 0 | 0 | 0 |
| *Modal verb* | 0 | 0 | 0 | 0 |
| *Pronouns* | 0 | 0 | 0 | 0 |
| **Punctuation:** | | | | |
| *Comma misuse within Clauses* | 0 | 0 | 0 | 0 |
| *Punctuation in Compound/ Complex Senesces* | 1 | 0 | 0 | 0 |
| *Closing Punctuation* | 0 | 0 | 0 | 1 |
| *Capitalisation* | 0 | 0 | 0 | 0 |
| **Vocabulary:** | | | | |
| *Word choice* | 3 | 0 | 0 | 0 |
| **Total no. of errors** | **22** | **3** | **7** | **4** |

**Table 5-5 DS1's error rates over time**

| Pre-test | Revision | Immediate post-test | Delayed post-test |
|---|---|---|---|
| *1.45* | *0.19* | *0.69* | *0.32* |

#### 5.5.1.1. Background Information

In regular secondary school English classes, she described the writing lessons as occasional and rather traditional as the main focus was on producing well-structured sentences. She mentioned having grammar lessons intensively and the writing lessons were as a practice to learn grammar. Even when her teachers asked to write about a topic, they had to include the new grammatical structures in their writing. The teacher's feedback was indirect indications that spotted the grammatical and spelling errors.

#### 5.5.1.2. Self-identified Strengths and Weaknesses

She had a low opinion of her writing skills. She said "…I think it is always difficult for foreign language learners to write and express their ideas the way they do when write in their own language. My weakness in writing is how to organise the ideas in the way that the reader readily understands me. Although my strengths are I have a lot of vocabulary and expressions in my mind, I face some challenges to use them properly. This is how I see my abilities in English writing." In her interview she was discouraged that she had not received enough background information about the topics "…was not enough to give me the background to write about a topic." She explained that time allocated to writing the tasks was a problem because she had to write under time pressure. However, she expressed that time for revision was sufficient for her to read the text twice. She preferred to have multi- drafts writing to practice writing skills for her future writing.

#### 5.5.1.3. Opinion about Error Correction Feedback

She felt that the best way for an English teacher to give feedback about errors is direct feedback "… I think the way my teacher corrected my errors was the perfect way because I understand my errors. When I read her feedback and saw the correct form, I remembered the rule if they were grammatical mistakes and I tried to memorise the correct spelling if they were spelling errors." Furthermore, she felt that this kind of intensive and comprehensive corrective feedback was helpful to her in terms of focusing on her weaknesses. She mentioned that she faced some difficulties in reading the teacher's hand writing, which led her to ask her teacher for help. The teacher was busy at that time, so instead she relied on herself to correct the errors. She reported that: "I copied some of

them because some of my teacher's corrections were not easy to read. When I asked her to help me, she was busy with another student. Therefore, I corrected them based on what sounds right as well as a learnt rule."

#### 5.5.1.4. Errors and Revisions

***DS1*** made a number of errors in her first draft before receiving written corrective feedback, these errors varied between grammatical and non-grammatical error as presented in ***Table 5.4***. This is perhaps attributable to some issues raised in her interview. She explained that she made these errors because "I thought they were the correct forms because I used to hear the expressions which I use in my speaking". Furthermore, she consistently mentioned that she has problems with English verbs, articles and prepositions. Also, she consistently mentioned that, she was under time pressure "… I could not concentrate well." Also, in her interview she added that she found the pre-lesson about the topic not enough and thought that perhaps she had not prepared well enough. She said that she wrote a short piece in the delayed post-test due to the lack of information she had about the topic. However, during the revision, she was able to reduce the error rate over time during the study as presented in ***Table 5.5***. She attributed this to the fact that "I read the text twice and looked at my teacher's corrections and read them carefully."

As to particular errors, two different forms of errors were worth nothing. She had a rather large number of word formation errors marked on her first text (pre-test task), but they were not there on the revision and immediate and delayed post-tests. It appeared from the interview that she had gained some awareness of how to put the words in the correct form both from prior instruction "I know I need to put some words in the correct form, for example, I need a noun after preposition." After discussing word formation issues with her during the interview she particularly mentioned word formation as an error she was now self-monitoring for as she wrote. Nevertheless, in the interview she said that while she knows the "gerund and infinitive" rule, she was not so certain about adjective formation. Thus, while she was monitoring her word formation usage more constantly, she appeared to be aware of accessing some formal rules and not others, she had learned formerly or during the study period.

The use of article was another error pattern that *DS1* committed on the pre-test, and unlike word formation errors, which could be easily edited by changing the form based on its position in the sentence, she had little success in self-editing these errors over time. For example, she wrote: "…to be good wife and mother…" during the interview and in

discussing this, she commented, “Articles are puzzles for me”; even though she was encouraged by noting that she had used correctly the indefinite article “…and being an expert,” she did not sound convinced. However, although *DS1* acknowledged difficulties with the use of English articles, this was not a challenging error form distinguished on her final text. This suggests that her heightened consciousness might have also impacted her article use during the final task.

#### 5.5.1.5. Insights about Language and Editing Process

*DS1* was good at explaining in her interview how her assumed processes worked during her revision stage. In the interview, she reported that she only read over her text and copied the error corrections provided by her teacher, some corrections were vague, and she edited them herself, and that her revisions were often a combination of “what sounds right” and a memory of a previously learned rule. For example, after she correctly rewrote “your dream come true” to “all your dreams will come true”, she said that she “thought of using conditional rule by using when needs will in the second half of the clause.” However, in other occasions, her memory of rules in fact misled her. For example, she clarified her frequent word formation errors in her pre-test by saying that word formation depended on word position such as the nouns and the adjectives.

*DS1* gave the impression to develop and strengthen insights during the study about the assistances of having direct explicit feedback “I think my writing would be improved when I get feedback and clear explanation about my errors. This would help me to understand my errors and consequently encourage me to study hard to avoid such errors in my writing.” This led her to say that “I become more careful especially about the errors that my teacher comments on.” She added that “I memorised the errors that my teacher corrected to me in order to not commit them in my new writing.” She also saw the value of rereading and editing her own work after she *“*...asked our teacher to have multiple drafts for our writing tasks.” In other words, she preferred to write in a multi-draft to writing only one draft. She elaborated the values of attending tutorial sessions to discuss her progress with her teacher, however, she was not very optimistic though “I would love to… even though she sometimes tells us if you need help come and see me. She is always busy because she teaches a lot of students from different groups.” Finally, she suggested some strategies to deal with her errors in future: “For the grammatical errors, I should go back to the grammatical rules in my notes and study them hard and look up the dictionary

for the spelling errors. I could also ask my teacher to help me to find the right way to deal with these errors."

#### 5.5.1.6. Summary

*DS1* is an interesting case to be considered in this analysis. She had direct corrective feedback on the errors she made in the pre-test. She made some grammatical errors such as verb tenses, articles, prepositions, and word formations. She also did non-grammatical errors like word choice and spelling. Nevertheless, she stated a lack of confidence from the start to the end of the interview, she did decrease examples of particular error types that had been corrected in her writing, and she did, in fact, monitor these errors in new texts. For instance, she felt that the English articles are puzzles, she showed improvement in articles in her final draft. This could suggest that her consciousness might influence her article use during the delayed post-test text. She also was quite passive during the interview, but when pushed with follow up questions about her assumed processes while writing and revision, *DS1* was able to elaborate decent insights about her knowledge and decision-making. However, she appeared to value the feedback practice she received, she sounded overwhelmed.

### 5.5.2. IDS1

*IDS1* participated in this study and was provided with indirect comprehensive written corrective feedback. During the experiment, she showed improvement in her overall accuracy and her error rate showed reductions over time as presented in ***Table 5.7***. Furthermore, ***Table 5.6*** shows the number and the types of the errors made by *IDS1* on different time stages. As can be seen from the table the errors committed on the pre-test stage became less and she produced more accurate texts on different time stages. The following sections are the themes produced from employing within case analysis to explore these changes in *IDS1*'s performance over time and to understand more her behaviours, beliefs and attitudes towards corrective feedback, the difficulties she faced and the strategies she used when dealing with direct corrective feedback.

**Table 5-6 IDS1's error trends over time**

| Error type | Tasks over time and texts length per word | | | |
|---|---|---|---|---|
| | ***Task 1/ 182*** | ***Revision/ 181*** | ***Task 2/ 208*** | ***Task 3/ 159*** |
| **Contextual Spelling:** | | | | |
| *Misspelled Words* | 11 | 2 | 3 | 0 |
| **Grammar:** | | | | |
| *Misuse of Quantifiers* | 0 | 0 | 0 | 0 |
| *Subject -Verb Agreement* | 0 | 0 | 0 | 0 |
| *Incorrect Verb tenses* | 9 | 0 | 2 | 0 |
| *Verb phrase formation* | 0 | 1 | 0 | 0 |
| *Determiner Use (a/an/the/this/ etc.)* | 2 | 0 | 1 | 0 |
| *Wrong or Missing Preposition* | 3 | 4 | 2 | 1 |
| *Conjunction Use* | 0 | 0 | 0 | 0 |
| *Singular/ Plural* | 0 | 0 | 1 | 0 |
| *Possession* | 0 | 0 | 0 | 0 |
| *Word formation* | 1 | 0 | 0 | 0 |
| *Adjectives/adverbs* | 1 | 0 | 1 | 1 |
| *Modal verb* | 0 | 0 | 0 | 0 |
| *Pronouns* | 0 | 0 | 0 | 0 |
| **Punctuation:** | | | | |
| *Comma misuse within Clauses* | 0 | 0 | 0 | 0 |
| *Punctuation in Compound/ Complex Senesces* | 0 | 0 | 1 | 0 |
| *Closing Punctuation* | 1 | 1 | 3 | 0 |
| *Capitalisation* | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 |
| **Vocabulary:** | | | | |
| *Word choice* | 1 | 0 | 1 | 2 |
| **Total no. of errors** | **28** | **8** | **15** | **4** |

**Table 5-7 IDS1's error rates over time**

| Pre-test | Revision | Immediate post-test | Delayed post-test |
|---|---|---|---|
| *1.48* | *0.44* | *0.64* | *0.25* |

#### 5.5.2.1. Background Information

Like the previous case, *IDS1* had similar experience of learning English language in the secondary school. She described her learning of the writing skill as basic and simple "...the writing part was slightly simple which focused on writing simple pieces of work…" She mentioned that she used to receive general comments "simple phrases such as good/ bad" or marks usually on the quizzes, homework and exams, which were never discussed them with the teachers. She also mentioned having grammar lessons over and over during her study in the secondary school and she found them beneficial.

#### 5.5.2.2. Self-Identified Strengths and Weaknesses

Unlike *DS1, IDS1* seemed to be more self-confident about her writing abilities. She attributed it to the fact that "my writing was improved after having different additional courses in English during summer holiday before getting to the university. The strengths of my writing include: organisation, different vocabulary, advanced grammatical structure…" *IDS1* explained how to overcome her weaknesses "by practice and learning more about English writing. I also would take additional writing courses." She wanted to be a good teacher in the future. Her high motivation appeared to be as a result of an incident which happened to her teacher "…this incident encouraged me to do my best to enhance my writing abilities. To be honest, I think of my future as a teacher, I would like to be perfect in front of my students. I still remember my English teacher when explaining an incorrect rule on the board. One of the students corrected her that made all the class were laughing at her. I don't want to be in the same situation. That's why I want to improve myself…"

#### 5.5.2.3. Opinion about Error Corrective Feedback

***IDS1*** reported that indirect corrective feedback is "… a very useful technique for both teachers and learners. In other words, for the teachers, they can highlight their students' errors and try to identify their students' needs regarding the language learning. Students will be encouraged to be motivated and improve their strategies for their learning." She had similar preferences as DS1 towards the type of feedback she would like to receive on her errors. She would like to have direct corrective feedback. She felt that having indicated the errors and clear and explicit feedback would be more effective than only

circling them "…I think when the teacher only circled the errors with providing the explanations or the reasons behind these errors, the feedback definitely will be useless." She added "I prefer correcting them and providing explanations because by doing that I will never forget them." Regarding the amount of error correction, she thought that "All errors should be marked because I learn from my mistakes…" Additionally, she expressed that she liked her teacher to provide feedback on the language, content and the organisation "I would like my teacher to consider them all. I believe to write a good piece of writing is when becoming able to write well-organised, accurate and communicated text…"

#### 5.5.2.4. Errors and Revisions

***Table 5.6*** illustrates that ***IDS1*** made many grammatical and non-grammatical errors in the pre-test during the experiment. It seemed that she had difficulties with verb tenses as she highlighted this issue in the interview "… I have problem with the tenses. I always write them in the past because we use the past tenses when we write in Arabic." This could be attributable to the L1 interference as the students have to compose their Arabic writing in the past. She mentioned that she unconsciously made these errors during timed writing, but she automatically recognised this error by simply reviewing what she wrote after the corrections "I knew my ordinary errors are verbs, my verbs are always in the past tense." She also was able to identify other grammatical challenges such as prepositions. She explained that "…I think they are grammatical errors especially prepositions. I think English preposition are hard to use. I should memorise them as collocations ..." She also had a similar opinion about the pre-lesson given for the tasks "… it was not sufficient because most of the students have difficulties in writing. It was not easy to write about something we know very little information about it." She successfully reduced the number of her errors in the pre-test from 28 to 8 errors in the revision; ***Table 5.7*** presents her error rate development over time. The reason is likely to be due to her strategies, which she employed during the revision, and when she made the corrections "I read my text very carefully and then I read it again with attention on the words in the circles. The most points written in the feedback were clear and I understood them. Some circled parts were quite complicated." Consequently, she added "the other errors I asked the teacher about some of them…"

*IDS1* notably made errors in spelling, prepositions and verb tenses in her first task, which she effectively reduced over time. In the interview, she was aware of her errors associated with verb tenses and she corrected them using two strategies and she said that "I used both relying on what sounds right and remembering the grammatical rules." She was

pleased that the second and the third tasks were about past experiences so that she used the verbs in the correct form. However, she used incorrect verb tense only in two instances, though when writing the second task. This could reveal that she was not able to monitor her verb tenses effectively. The other issue was her spelling; when discussing this matter in the interview, she attributed her spelling errors to her pronunciation, and she said that her problem is more conspicuously inaccurate in handling vowels. She reported that "My spelling is horrible, and I have problem with vowels. I write the words as I pronounce them." However, she had great success in self-editing these errors over time. She reported that she started to either asking the teacher for help or using a dictionary when she was not certain about a word spelling "I tried to practice spelling at home by memorising the words. During my writing, I asked my teacher or used my own dictionary before using the words in my writing."

The use of prepositions was the other challenging language issue faced *IDS1* in her writing. Although the number of her preposition errors became less, they seemed the only error pattern she was not able to monitor over time.

#### 5.5.2.5. Insights about Language and Editing Process

*IDS1* clearly described her way in dealing with the errors during the revision session. As her feedback was only circling the errors, her revision was a combination of "reading and thinking". She reported that she read the text over and over again with full attention given to the words in the circles. Then she added "I looked at them and started to think how to correct them… When I revised the errors, I tried to find out what was wrong." She mentioned that some errors were difficult, therefore, she asked the teacher's assistance, whereas to correct the other errors "I used both relying on what sounds right and remembering the grammatical rules." One of the examples was that she was good at correcting "what you planned for" to "what you plan for", she said that "the verb should be in the present form rather than in the past because I can use past when I write about past events". By contrast, in her third writing she repeated the same error when she wrote "I ensured this after this idea" where the verb must be in present tense.

Although *IDS1*expressed dissatisfaction towards the indirect corrective feedback, she seemed to improve and reinforce understandings over time regarding the advantages of receiving written corrective feedback "providing regular feedback helps students to know their mistakes and encourages them to avoid them in the future... I prefer correcting them and providing explanations because by doing that I will never forget them." She also recognised the value of revision session and reported "The revision step was very helpful. I was able to find out about my errors and then write the same topic. I hope our teacher

use this step with us all the time." She preferred to have oral communication sessions after having corrective feedback and she said that "I'd always like to discuss my weaknesses with my teacher because this might help improve them. Teachers will not have enough time to discuss our writing because of the number of the students in each group." As a final point, she suggested some strategies to deal with her errors in future: "I can say I would study the grammatical rules especially verb tenses, learn the spelling of a large number of words, try to increase my awareness of the language use by doing extra courses."

#### 5.5.2.6. Summary

*IDS1* during the interview was able to report and highlight her behaviour and attitude when processing indirect corrective feedback. She showed her preferences for direct feedback provision over indirect feedback. She was highly motivated to be a very good teacher in the future. Her enthusiasm was reflected evidently in her perseverance to learning English language. *IDS1*'s performance during the experiment was remarkable because she effectively made a good use of intellectual strategies in reducing her errors over time. She committed grammatical errors such as verb tenses, and prepositions, and non-grammatical ones like spelling. Her problem with that past tense can be attributable to L1 interference as Arab learners in general and Libyan learners in particular often compose their writing about past events. With regard to her spelling errors, she adapted new strategies such as asking her teacher or using a dictionary to avoid this problem. This suggest that feedback could increase her attention to these errors and as a result she improved her weaknesses.

### 5.5.3. CS1

*CS1* was one of the participants in this study her teacher provided her with general comments on her errors she made on the pre-test stage. Over the time of the experiment, she showed improvement in her overall accuracy as can be seen in her error rate presenting in ***Table 5.9***. In addition, ***Table 5.8*** presents the number and the categories of the errors committed by *CS1* on different time stages. It is clear from the table that the errors she made on the pre-test stage reduced overtime. The following sections are the themes produced from the within case analysis in order to understand the changes occurred in CS1's error rate over time and to examine closely her behaviours, beliefs and attitudes towards corrective feedback, the difficulties she faced and the strategies she used when dealing with the general comments that she received on her writing.

**Table 5-8 CS1's error trends over time**

| Error type | Tasks over time and texts length per word | | | |
|---|---|---|---|---|
| | ***Task 1/ 217*** | ***Revision/ 227*** | ***Task 2/ 181*** | ***Task 3/ 182*** |
| **Contextual Spelling:** | | | | |
| *Misspelled Words* | 2 | 0 | 1 | 1 |
| **Grammar:** | | | | |
| *Misuse of Quantifiers* | 1 | 0 | 1 | 0 |
| *Subject -Verb Agreement* | 2 | 0 | 0 | 1 |
| *Incorrect Verb tenses* | 1 | 0 | 0 | 1 |
| *Verb phrase formation* | 0 | 1 | 1 | 0 |
| *Determiner Use (a/an/the/this/ etc.)* | 4 | 2 | 3 | 1 |
| *Wrong or Missing Preposition* | 2 | 5 | 3 | 2 |
| *Conjunction Use* | 2 | 0 | 0 | 2 |
| *Singular/ Plural* | 0 | 0 | 1 | 0 |
| *Possession* | 2 | 1 | 0 | 0 |
| *Word formation* | 2 | 1 | 1 | 0 |
| *Adjectives/adverbs* | 0 | 0 | 0 | 0 |
| *Modal verb* | 1 | 0 | 0 | 0 |
| *Pronouns* | 0 | 0 | 0 | 0 |
| **Punctuation:** | | | | |
| *Comma misuse within Clauses* | 0 | 0 | 0 | 0 |
| *Punctuation in Compound/ Complex Sentences* | 4 | 0 | 0 | 2 |
| *Closing Punctuation* | 3 | 1 | 0 | 1 |
| *Capitalisation* | 0 | 0 | 0 | 0 |
| **Vocabulary:** | | | | |
| *Word choice* | 2 | 0 | 2 | 5 |
| **Total no. of errors** | **28** | **11** | **11** | **15** |

**Table 5-9 CS1's error rates over time**

| Pre-test | Revision | Immediate post-test | Delayed post-test |
|---|---|---|---|
| **1.29** | 0.48 | 0.55 | 0.82 |

#### 5.5.3.1. Background Information

Regarding her English lessons in secondary school, *CS1* reported that the type of writing she had in her secondary school was simple in terms of grammar revision. For example, she said that her teacher provided them with a written text and asked the students to find the grammatical errors and they had to correct them or the teacher asked them to write sentences which obeyed a particular rule and she reported that "Writing classes in the secondary school were typical ones required a piece of writing based on the grammatical rules and the teacher provided us with a text whether to find the grammatical errors or to fill in the gaps with the correct grammatical form. They were not frequent classes because we had English lessons four times every week." She also reported that she used to get general comments on her work, which were clear for her to understand because they were very short comments "Sometimes with general comments or marks. General comments were short phrases like good/ bad!"

#### 5.5.3.2. Self-Identified Strengths and Weaknesses

She reported that she thought that her writing was relatively good, and she was quite confident about it. She also said that her complications in writing were vocabulary and grammar "I'm quite confident about my writing. However, I still have some problems that need improvement. I'm good at generating ideas and write in a comprehensive way. I think my challenges are in vocabulary and grammar." She explained that her vocabulary problem was due to her bad memory, and her strategy in using the vocabulary was based on a translation from Arabic into English as she said, "I translate words from Arabic into English express my ideas." In the interview, she was encouraged that she noticed that her writing improved over time "…I do feel my writing becomes better when I compare it with my writing at the beginning of the semester." Like the previous two students, she complained about the pre-lesson given before writing the topics. "They are a kind of short and not enough to write about a topic. I would like our teacher to give us the lesson in different steps including examination about grammar, vocabulary, giving samples, writing, giving feedback, revising and discussion." By contrast, she expressed her ability

to manage her time for the revision and rewriting the same topic. She stated that "I think I could manage this task because I normally write fast."

#### 5.5.3.3. Opinion about Error Corrective Feedback

*CS1* received general comments on her first draft that was the same technique she used to have in her secondary school as well as now in the university. She showed familiarity of how to deal with this type of corrections. She positively expressed her opinion and attitude regarding the feedback provision in general "It was really effective and very essential for us as students to understand and know about our errors and to correct them. I also think it is significant for the teacher to ensure that learners make use of her correction. Normally we take the written texts back with corrections and never look at them. If we were asked to write many drafts about the topic, we would be engorged to read the teacher's feedback and know more about our errors." Like others, *CS1* elaborated her need to have major corrections that should be applied in the form of direct explicit feedback "I would like my teacher to correct all my errors and to tell me what they are and how to correct them by this I will never forget my errors… Yes, if my teacher gives me clear feedback and detailed one, I'm sure that will positively affect my writing…general comments are quite good technique at the early stage of learning especially when they are positive comments because they boost learners' motivation. In advanced level, I think if teachers are consistent in the way they give feedback, students will appreciate detailed comments." She stated that she preferred the teacher's corrections to be on the language errors "I would like my teacher to consider the grammatical sentences. I think good writing is when you use the grammar correctly." She pointed out some of the challenges that she faced when dealing with the teacher's comments. First, she claimed that it was difficult to read the comments and search for them in her writing. Second, she said that the comments were very general, therefore, she struggled to figure out what her teacher wanted her to correct "My problem is how to find them in my writing. For example, she comments 'be careful about your word choice' I didn't understand what she meant." Therefore, she used the strategy of asking the teacher for help, which she described it as an effective immediate reaction to deal with her errors "I asked my teachers to explain some errors and I corrected them, but I left the ones that I didn't know how to correct them."

#### 5.5.3.4. Errors and Revisions

*CS1* made some errors in her first draft. As ***Table 5.8*** shows her errors were both grammatical and non-grammatical. In the revision stage, it appeared that she was able to reduce some of her errors when she redrafted the initial text such as spelling, articles, and punctuation. Conversely, some errors increased like the prepositions. When discussing this issue in the interview, she explained that she had difficulty with the prepositions because she cannot apply a fixed rule when using them. However, she mentioned that sometimes she translated literally from Arabic "My prepositions use is terrible, I use them relying on my mother tongue. For instance, I used 'I believed by' which equals in Arabic 'Anna O'men bi'." This is because they have phonological similarity. However, in the immediate and delayed post-tests *CS1* did not commit any errors in using propositions; she attributed that to her hard working and self-study after her teacher drew her attention to this matter. She explained that she started to learn words with suitable prepositions "I started to memorise them as couples, what I mean is, for example, wait for, think about or of, believe in. My teacher advices me to do this."

The other error pattern that *CS1* made was word choice, particularly in the final task of the experiment. This is perhaps attributable to two issues raised in her interview: First, she relied mostly on the translation from Arabic to English when expressing her ideas "I usually think about the topic in Arabic and when I write I transform the ideas to English." Second, she mentioned that the final task was quite hard to write about and she lacked the knowledge about the topic. *CS1* claimed that the lessons were given before writing about topics were not enough "They are a kind of short and not abundant to write about a topic. I would like our teacher to give us the lesson in different steps including examination about grammar, vocabulary, giving samples, writing, giving feedback, revising and discussion."

The final error concern in *CS1*'s writing was her use of the punctuation marks. She mentioned that she hardly ever remembered to use them. When asking her how to correct them, she was not confident to decide when to use comma in the complex clauses. However, she managed to decrease the punctuation errors number from 7 errors in the pre-test to 1 error in the revision as presented in ***Table 5.8***. She mentioned that "I monitored my punctuation because my teacher commented on them."

#### 5.5.3.5. Insights about Language and Editing Process

*CS1*spontaneously expressed herself when describing her experience regarding processing her teacher's general comments. She mentioned that when the teacher asked them to revise the text, she explained her revision was a kind of reading and searching "I read the text and carefully read my teacher's comments and try to go through the text to find what she wanted me to do." Considering her self-editing strategies, she reported: "I tried to correct the ones I know based on what sounds right, and I asked my teachers to explain some errors and I corrected them, but I left the ones that I didn't know." For instance, she corrected "I will make my dream comes true" to "I will make my dream come true" She explained she relied on a rule when correcting this error, and she added that "make is a verb followed by an infinitive without to." However, she had a similar error in the delayed post-test text "people let their children deals with each other.

She held similar attitude to those of the previous students towards the revising and writing multiple drafts. She noted that "It was really effective and very essential for us as students to understand and know about our errors and to correct them. I also think it is significant for the teacher to ensure that learners make use of her correction. Normally we take the written texts back with corrections and never look at them. If we were asked to write many drafts about the topic, we would be encouraged to read the teacher's feedback and know more about our errors." *CS1* also insisted on the importance of having a discussion with the teacher considering errors and solutions to overcome them "I'd love to discuss my errors and feedback with my teacher because this might help to find good ways to deal with my errors and it might be the best way to understand her comment". When she was asked about the strategies for self-development, she mentioned that she would "I will write some drafts at home and I will do a private course."

#### 5.5.3.6. Summary

*CS1* received general comments on her initial written text, she expressed her strategies, attitude as well as difficulties when dealing with teacher comments. She showed a positive attitude to corrective feedback and she saw the value of revising and having multi-drafts. She also expressed her preferences to receive rich explanations integrated with oral communication with the instructor to gain the fruit of corrective feedback provision. For instance, she learned a new strategy to learn prepositions after had discussed this issue with her teacher. Her writing during the experiment gradually improved.

## 5.6. Cases of Students with Overall Accuracy Decline

This section presents two individual cases (i.e., one student from the direct group, one from the indirect group) who had some characteristics in common regarding their perception of the error corrective feedback and they were labelled as ***(DS3 and ID3)***.

### 5.6.1. DS3

*DS3* was one of the participants in this study and was provided with direct comprehensive written corrective feedback on the errors he made in the text he wrote on the pre-test stage. Over the time of the experiment, he did not show any improvement in his overall accuracy as can be seen in the error rate presenting in ***Table 5.11***. The number and the categories of the errors made by *DS3* on different time stages are presented in ***Table 5.10*** presents. As can be seen from the table that the errors he made on the pre-test stage increased overtime. In following sections, there will be a presentation of the themes produced from the within case analysis in order to understand the changes occurred in *DS3*'s error rate over time and understand his behaviours, beliefs and attitudes towards corrective feedback, the difficulties he faced and the strategies he used when dealing with direct corrective feedback.

**Table 5-10 DS3's error trends over time**

| Error type | Tasks over time and texts length per word | | | |
|---|---|---|---|---|
| | ***Task 1/ 176*** | ***Revision/ 134*** | ***Task 2/ 108*** | ***Task 3/ 141*** |
| **Contextual Spelling:** | | | | |
| *Misspelled Words* | 8 | 3 | 2 | 1 |
| **Grammar:** | | | | |
| *Misuse of Quantifiers* | 0 | 0 | 0 | 0 |
| *Subject -Verb Agreement* | 2 | 4 | 0 | 1 |
| *Incorrect Verb tenses* | 3 | 0 | 5 | 3 |
| *Verb phrase formation* | 2 | 1 | 0 | 0 |
| *Determiner Use (a/an/the/this/ etc.)* | 3 | 3 | 1 | 7 |
| *Wrong or Missing Preposition* | 1 | 0 | 2 | 0 |
| *Conjunction Use* | 0 | 1 | 0 | 2 |
| *Singular/ Plural* | 0 | 4 | 2 | 1 |
| *Possession* | 0 | 0 | 0 | 0 |
| *Word formation* | 2 | 4 | 0 | 3 |
| *Adjectives/adverbs* | 3 | 1 | 2 | 1 |
| *Modal verb* | 0 | 0 | 0 | 0 |
| *Pronouns* | 0 | 1 | 0 | 1 |
| **Punctuation:** | | | | |
| *Comma misuse within Clauses* | 0 | 0 | 0 | 0 |
| *Punctuation in Compound/ Complex Senesces* | 0 | 0 | 0 | 0 |
| *Closing Punctuation* | 0 | 0 | 0 | 1 |
| *Capitalisation* | 0 | 0 | 0 | 1 |
| **Vocabulary:** | | | | |
| *Word choice* | 4 | 1 | 0 | 4 |
| **Total no. of errors** | **28** | **23** | **14** | **26** |

**Table 5-11 DS3's error rates over time**

| Pre-test | Revision | Immediate post-test | Delayed post-test |
|---|---|---|---|
| *1.59* | *1.72* | *2.22* | *1.84* |

#### 5.6.1.1. Background Information

*DS3* expressed some disappointment about his experience of learning English in secondary school. He did not remember that his teacher gave him a topic to write about or helped him to develop his writing skills. He mentioned that the only type of feedback he received was some kind of negative comments articulated by his teacher in front of his classmates, or some bad marks on exam papers that might make him demotivated to write in English. He considered himself to be a "passive" learner in the secondary school English lessons and felt sorry for not having "help" from his teachers. He said that "I was careless in English" as his secondary school peers were, noting that "our teachers come and only give the lessons and not encourage us to learn." He did, nonetheless, indicate that he had learned some information about writing from his teacher now, who had given him a really "good help" for writing good paragraphs.

#### 5.6.1.2. Self-Identified Strengths and Weaknesses

In his interview, *DS3* said that his writing was not so bad "My writing was at first absolutely horrific I didn't know how to write in full sentences or how to write a short paragraph. I think my writing is not so bad. Firstly, my strengths in English writing are simple sentences, commas, and full stops, I mean punctuations, but not all of them. Secondly, my weaknesses are the spellings like long words/ high level words, for example, (creativity) and complex grammatical structures, I'm not good at grammar. Finally, my teacher had told me that the aforementioned are my weaknesses and strength." He also said that he never organised his ideas logically but instead his ideas were "like vague" and he was not able to develop the ideas further because sometimes he frequently forgot his ideas and easily lost focus. He thought that preparing and organising his ideas would help him to improve his writing. As for language and grammar, in the interview he identified his problems as "I don't like grammar… the problem is that I don't understand our grammar teacher. His accent is difficult because he is from ..."

#### 5.6.1.3. Opinion about Error Corrective Feedback

*DS3* reported that he was provided with "a lot" of English grammar teaching in his previous education, that he was "not really certain" whether his grammar was problematic for his writing, and that his ideal method of getting error feedback was for the teacher to

"correct all of my errors for me." Nevertheless, when I asked him the same question again, he thought that it could be more beneficial to have the errors circled for him but not corrected so that he could know the error's place "I prefer marking my errors rather than correcting. When teacher corrects my errors, I will not be able to correct them by myself. When I try to correct them, I will search for the right answer and study hard to avoid committing them the next time. Also, that will give a clear picture to see some of my silly mistakes." He added direct error corrections are not easy to read and understand "I couldn't read them because I have sight problem and the teacher's hand writing was not clear." He had also strong views about his former teachers' feedback approaches, saying that they "really disappointed me" by just saying negative comments and not giving him a chance to discuss his own weaknesses with them. During the revision, he said that he just started writing without revising or reading his teacher's feedback "I didn't revise the text. I looked at red corrections and then I started to write the same topic again." He explained that "I didn't revise my writing because I was not happy of having a lot of red corrections on my paper."

#### 5.6.1.4. Errors and Revisions

*DS3* in fact had some persistent language errors in his writing, which reflected some language problems. For example, he had articles and adjective errors marked as patterns on all four written texts which seemed difficult to develop as time went on. He had some difficulties in verb tense on task two that he could not self-correct when they were pointed out to him. For instance, he was asked to look at the following sentence "I made that decision since my parents want me to do so" to correct it. He directly answered "I think it's … No…. of course, it's …I don't know" He seemed passive to explain what was incorrect as well as not able to suggest changes to solve the problem. The other issue that DS3 was insecure about was the use of word choice, he had a particular idea he was trying to convey, for example "that <u>simple</u> teacher in my opinion will <u>build</u> a great generation"- not only in this sentence but in different other sentences in task one and the third one- but did not have the exact lexis to express it accurately or clearly.

In addition to these matters, *DS3* made several typical grammatical errors with noun plurals, adjectives and subject verb agreement. His discussions about errors in his interview suggested that he did not fully recognise the basic rules behind them. For instance, he wrote "I never makes them …" during the interview he was asked to explain what the problem was and to try to suggest changes, but he was obviously struggling with

the form and the rule. Correspondingly, on his immediate post-test task, he had a phrase marked as an "adjective" error, which is the following phrase "who teach me how to be ambition", and he was asked about it he clarified that he thought the word is in the correct form. Although DS3 was, for the most part, quite able to self-edit some of other errors when pointed out to him, there was little evidence in the texts used that he had learned or internalised the rules; he has different errors in either verb tenses, punctuation or plural marked on his final text.

#### 5.6.1.5. Insights about Language Knowledge and Editing Processes

*DS3*'s aptitude to explain his own strategies was insufficient compared to some of other students. Other than saying "I write what I feel it's correct", he was not able to identify either why the words were incorrect or suggesting any rules or self-editing strategies that helped him. Rather, he entirely ignored the errors marked and corrected for him by his teacher and rewrote the same texts with almost the same errors. He said that "I like to just write"- but he did not know his writing sometimes failed to convey his messages.

One possible clue to *DS3*'s attitude can perhaps be seen in his belief that he could improve his language when he can "spend much time on my writing skills." He felt that he had not spent sufficient time on his writing during this term, he wished he "could go back in time and really pay more attention" in his secondary school classes. When was asked about having a discussion with his teacher regarding his writing weakness, he immediately replied "I feel shy to discuss my errors with my teacher because I think she thinks I am a lazy student, but I'm trying my best to improve myself". *DS3* appeared undoubtedly frustrated with both himself and his present teacher as well as previous English teachers, but even when asked during the interview what his former teachers might have done differently, he could not say anything. This lack of reflection and self-awareness – joined with blaming himself and others for his difficulties- might clarify why he did not seem to progress much in self-editing many of his errors, regardless of his assertions that participation in the interview had really helped him.

#### 5.6.1.6. Summary

In many ways, *DS3* seemed lost and could not find the right ways to improve his writing during this term. His progress in other subjects such as reading for comprehension and oral practice suggested both that he was clever and had solid foundation in English. It was interesting, therefore, that his writing was as weak as it was. Difficulties with sentence and word choice concealed his meaning in the first draft, and even in the later ones. He

felt frustrated at being less motivated regarding his writing. He seemed to have some cultural and social issues with his hard-working, he explained that in Arab culture in general and in Libyan society in particular, it is a shame when the person does not work hard and keep failing: “I didn’t work hard enough in secondary school, and now it’s too late”- and to feel frustrated about what he perceived as a mismatch between his capabilities and the writing course. In other words, he did not like being made to write because he felt he was less able to do so.

### 5.6.2. IDS3

*IDS3* was one of the participants in this study and was provided with indirect comprehensive written corrective feedback on the errors she made in the text he wrote on the pre-test stage. Over the time of the experiment, she did not show any improvement in her overall accuracy as can be seen in the error rate presenting in ***Table 5.13***. The number and the categories of the errors made by *IDS3* on different time stages are presented in ***Table 5.12*** presents. As can be seen from the table that the errors she made on the pre-test stage increased overtime. In following sections, there will be a presentation of the themes produced from the within case analysis in order to understand the changes occurred in *IDS3*’s error rate over time and to explore her behaviours, beliefs and attitudes towards corrective feedback, the difficulties she faced and the strategies she used when dealing with indirect corrective feedback.

**Table 5-12 IDS3's error trends over time**

| Error type | Tasks over time and texts length per word | | | |
|---|---|---|---|---|
| | ***Task 1/ 143*** | ***Revision/ 136*** | ***Task 2/ 259*** | ***Task 3/ 166*** |
| **Contextual Spelling:** | | | | |
| *Misspelled Words* | 4 | 2 | 2 | 4 |
| **Grammar:** | | | | |
| *Misuse of Quantifiers* | 2 | 2 | 0 | 0 |
| *Subject -Verb Agreement* | 3 | 4 | 2 | 1 |
| *Incorrect Verb tenses* | 1 | 2 | 7 | 5 |
| *Verb phrase formation* | 2 | 0 | 2 | 1 |
| *Determiner Use (a/an/the/this/ etc.)* | 2 | 2 | 0 | 3 |
| *Wrong or Missing Preposition* | 1 | 3 | 4 | 3 |
| *Conjunction Use* | 0 | 0 | 0 | 1 |
| *Singular/ Plural* | 2 | 1 | 1 | 0 |
| *Possession* | 0 | 0 | 0 | 0 |
| *Word formation* | 2 | 1 | 3 | 1 |
| *Adjectives/adverbs* | 2 | 2 | 1 | 3 |
| *Modal verb* | 0 | 0 | 0 | 0 |
| *Pronouns* | 0 | 0 | 0 | 2 |
| **Punctuation:** | | | | |
| *Comma misuse within Clauses* | 0 | 0 | 0 | 0 |
| *Punctuation in Compound/ Complex Senesces* | 0 | 0 | 1 | 0 |
| *Closing Punctuation* | 0 | 1 | 0 | 0 |
| *Capitalisation* | 3 | 0 | 0 | 1 |
| **Vocabulary:** | | | | |
| *Word choice* | 1 | 2 | 4 | 2 |
| **Total no. of errors** | **25** | **22** | **27** | **27** |

**Table 5-13 IDS3's error rates over time**

| Pre-test | Revision | Immediate post-test | Delayed post-test |
|---|---|---|---|
| *1.75* | *1.10* | *1.62* | *1.63* |

#### 5.6.2.1. Background Information

*IDS3* described her secondary school education as being not helpful to FL students like herself and taking a lot of effort and time to understand and learn English language. She mentioned having grammar lessons a lot as well, but she could memorise the rules of grammar using them in context properly: "We had very intensive grammar lessons and I think we took all the grammatical rules. The problem is we know the rule but how to use the grammar in writing or speaking is difficult." She also commented on the grammar lessons in the university, and she said that "I think it's repetition to the grammar we had in the secondary school. I believe most students face the same problem of understanding the grammar rule but not how to use them correctly in communication contexts." For the writing lessons, she reported that they were not compulsory ones: "The writing lessons were occasionally. I mean every unit in the book had reading, writing, listening and speaking skills. To be honest, teachers always tried to avoid writing lessons and consider them as a wasting of time because the English inspector always warned them to cover and finish all the syllabus before the end of the year. So, the teachers used to focus mostly on grammar and reading and homework than speaking and writing. Sometimes they asked us to do the writing part when we have English lesson the last lesson in the timetable or when the teacher had no desire to teach".

#### 5.6.2.2. Self-Identified Strengths and Weaknesses

IDS3 thought that "I still need a lot to become good at writing. Although, I think I am good at grammar rules, I still find it difficult when I want to apply them in writing or speaking. The other weakness is how I can write in the way that I could link the ideas and easily convey what I intend the reader to understand. These are my opinions… I'm not a very good writer right now." In her interview she said that she was discouraged that she had not received good scores on her English examinations at the secondary school and she felt that her writing had not improved at all: "my writing is staying the same … I'm not getting any better." She explained that "I'm not interested in studying in this department because I wanted to be a doctor." She mentioned that she was not satisfied with the way they have learned English either in the secondary school or in the university. She wanted to learn it in a different way: "it is useless unless they teach us how to use the

language in communication in real life situations. This is the problem of all the students, when we speak or write, we use wrong expressions and sentences. This means we learn the language in a wrong way."

#### 5.6.2.3. Opinion about Error Corrective Feedback

*IDS3*'s attitude towards written corrective feedback in general was positive: "… they are significant elements in the writing. When my teacher reads my writing and provide me with the comments, I feel that my teacher considers my progress in the subject." She felt that the best way for an English teacher to give feedback about errors is "correct them and discuss the errors with me. I always learn when I know my mistakes." She elaborated on having major corrections to all errors in her writing: "I prefer to have corrections to all my errors that would help me to know my weaknesses in writing." Furthermore, she mentioned that she preferred to have comments on language errors, and content as well as organisation: "I think the three points are very important elements for writing. We need to learn more about grammatical structures, how to organise our ideas and the content that makes sense to the reader." In the interview, she reported on the type of the correction she normally used to receive from her teacher in the secondary school: "… teachers usually gave negative comments that made me disappointed and not happy about my level." Reflecting on the indirect feedback she received during the experiment, she reported that: "…I think it's a good way because at least I know where I commit the mistakes." Although she knew the places of her errors, she expressed her frustration when she had no how to correct them.

#### 5.6.2.4. Errors and Revisions

As to the revision strategies, unlike *DS3, IDS3* went through the texts and revised her writing: "I read the texts and I focused on the circled words… I tried carefully to understand what was wrong with them." Regarding the errors, *IDS3* reported that "Some of the errors I thought they were the right forms or words to use. Some other errors I didn't know, but I used them because I wanted to express my ideas. I think when I write in timed writing I got frustrated and I couldn't concentrate well. I was just thinking of how to reach the number of words in a limited time. I didn't revise or proofread my writing." It was clear that *IDS3* did make many language errors on all her written texts. The number of errors increased as the time went on. Her error rate declined on the revision and increased on the two post-tests as presented in ***Table 5.13***. This is perhaps attributable to the fact that she wrote more words in the last two tasks than she did in the pre-test task

and the revision one. As to the rewritten text, she mentioned that: “I understood that the circled words are incorrect… The difficult thing was when I didn’t know the correct form of the errors and I didn’t understand what the teacher wanted me to do.” She showed partial understanding of the feedback but was not able to suggest changes to the circled errors. For the two written texts, she consistently mentioned that “Some of the errors I thought they were the right forms or words to use. Some other errors I didn’t know, but I used them because I wanted to express my ideas. I think when I write in timed writing I got frustrated and I couldn’t concentrate well. I was just thinking of how to reach the number of words in a limited time. I didn’t revise or proofread my writing.”

Regarding to specific errors, she made some grammatical and non-grammatical errors such as subject verb agreement, verb tenses, prepositions, adjectives and spelling. *IDS3*, had a relatively large number of verb tenses circled on her third and fourth texts (immediate & delayed post-test tasks). It appeared from the interview that *IDS3* would put together some kind of reason for a construction, based on half-remembered bits of rules, but could not remember the rules themselves. When discussing these issues with her during the interview she specifically mentioned that if the clause is introduced by when, the verb should be in present perfect, for instance, “When I have been in a primary school.” However, in other instances she was not sure what verb tense to be used with when: when I stand behind them…” *IDS3* also could not suggest the correct change to the verb tense “… I came and ask my mother…” She thought that “ask” could be correct because it comes with “I” or she suggested to add “s” to the verb because it followed by a singular noun “mother”.

Another error pattern worth noting in *IDS3* texts was subject/ verb agreement in her first texts and the revised one. For example, she wrote that “…everyone have hopes…” During the interview and in discussing this, *IDS3* commented that “everyone means people so I used the verb have…” In the following example, the verb was marked as an error “… his wife haven’t got a baby…” she also failed to either identify the error or suggest changes to correct it. Similarly, she had a problem with the prepositions, which was discussed with her and she expressed her difficulties to use the correct preposition. Eventually she ended the discussed by saying that “… I will never learn how use the correct preposition in a sentence…” This error, like the last one is about lexical arbitrariness, an “untreatable” kind of error.

#### 5.6.2.5. Insights about Language and Editing Process

*IDS3* expressed herself well in her interview how her thought processes worked during her editing session. In different occasions she mentioned that she read the texts and looked carefully at the circled words when she was asked to revise her text. As to errors editing, she mentioned that she corrected them using a combination of what sounds right, remembering a rule, replacing them with new words, or ignoring them. She said that "Some errors I tried to change by remembering a rule to help me using the correct form. Sometimes, I didn't know how to correct the errors and tried to change the word or just repeated it because I thought that was the correct form you can say by guessing." She added "I think I didn't changed them because I didn't know the right form of the words and the phrases. I avoided." For example, after she correctly edited "However" to "However," she said that she "know I need to put a comma after 'however'." Regarding the cases where she mentioned that she based her correction on a studied rule, her knowledge of rules seemed to mislead her. For example, she edited "I learning information" to "I learning many information" and explained her error by saying that she needed to use a modifier before the noun "information". However, this might indicate that this is an inherent problem with the indirect corrective feedback- she guessed wrongly what the error was in the circled phrase and applied a different rule to something was not actually wrong. Finally, she substituted some errors using other errors such as in "when I was young, I hope to become…" by "when I was young, I wish to become…" Again, in this example she suggested that it was a word choice problem and she did not notice the tense problem.

*IDS3* saw the benefits from writing and reading for editing after the fact: "It was useful because it helped me to check my errors and think about how to correct them." She also pointed out the importance of negotiating feedback with her instructor and described this as a significant step for her development in writing: "I think I will improve my writing when my teacher tells me what are the weaknesses that need improvement, then I will try to study hard in order to overcome my challenges in writing."

#### 5.6.2.6. Summary

In the interview *IDS3* stood in contrast of *DS3*, who demonstrated both self-reserving and restraining. She articulated some insights about both her revision strategies as well as her thought processes while writing and editing. She also was able to point to some difficulties she faced while dealing with corrective feedback. She pointed that she

expressed her ideas in writing by translating from L1 to English. This indicates that her past experience that she was taught by grammar translation method might reflect on her writing performance. She preferred to have indirect corrective feedback on her errors, however, indirect corrections seemed to mislead her what to do with the errors. Although she made less observable progress in her revised text, she apparently failed to increase her written accuracy over the study period.

## 5.7. Insights from the Cases

The previous mentioned two sets of cases were obviously quite different from one another regarding self-confidence, attitude, revision strategies, editing strategies and difficulties in processing corrective feedback. The participants ***DS1, IDS1, CS1***, did expressed positive opinion about their writing or their progress, and they also were highly-motivated to improve their writing. Perhaps because they were aware of both their own limitations and urgency of the situation, they engaged thoughtfully and diligently with the input and assistance they received through their participation in the experiment and from their teacher. During the experiment, the participants' error rates showed the biggest development in their groups. They were eager to receive corrective feedback and used successfully. They also thought teacher corrective feedback an important tool of learning. Although, their writing experiences in the past were humble, they were successfully able to learn from their current opportunity. They were quite precise about their self-editing strategies and reporting the contextual factors. The three of them made visible progress in addressing their language errors as the study went along.

On the other hand, there were the other two participants (i.e., one was from the direct corrective feedback group and the other one was from indirect group). They were named as ***(DS3, IDS3)***; their error rates during the experiment showed the biggest growth in the number of errors they committed. They also had some characteristics in common such as frustration and disappointment with teacher feedback they were provided with in the past, and they felt anxiety and bitterness about their current conditions, mainly the final year timed writing examination. They were not confident about their writing and language abilities. They were not able to make any improvement in their language errors over time. These were examined more closely in the following section

*DS3,* for instance, thought that he did not really need the writing and he did not put much effort into revising or reflecting upon his written errors or his revising practicing. Relatively, both in the study and during the term, he seemed to be devotedly going

through the motions without ever obtaining confidence that teaching activities would help him to learn anything he required to be aware of, whereas, *IDS3* was much more like *DS1, IDS1, CS1* (with respect to confidence and diligence). These two case studies set narratives strengthen the importance of learners' confidence, attitude, and effort as learners interact with various types of instructions; interventions, together with the one has been focused upon in this study, corrective feedback.

### 5.7.1. Insights from both Cross and Within Cases

This section will summarise the main features emerging from students' interviews as well as from the case narratives regarding students' applications of written corrective feedback.

#### 5.7.1.1. Students' Perceptions of Corrective Feedback

It appeared that all the learners perceive corrective feedback as a significant practice that may enhance both language learning and their writing abilities. They think that the attention given to their errors by feedback methodology helps them to increase their awareness of their errors and understand the reasons of their errors. It also encourages them to suggest solutions so that they avoid them in their future writing. In this regard, this finding is similar to some previous studies which found that learners appreciate to receive feedback on their written texts and they think that feedback is essential in improving their writing skills (e.g., Radecki & Swales, 1988; Cohen & Cavalcanti, 1990; Hyland, 2003; Chiang, 2004; Diab, 2005b; Lee, 2008b; Hamouda, 2011; Leki, 1991; Tsui & Ng, 2000; Zhu, 2010; Hamouda, 2011). All the students express their preferences for having major corrections "comprehensive CF" on their errors including corrections on language errors, content, and the organisation. This is similar to Diab (2005a) who found that most of the learners in his study prefer to have corrections on all errors in their writing especially in the final draft. Similarly, Radecki and Swales (1988) who noted that learners may lose their credibility in their teacher when they do not receive corrective feedback on all errors.

Nevertheless, the participants hold different views regarding the type of teacher's correction method. Some learners prefer to receive direct feedback because it assists them to identify their errors and know the corrections. They also think it is easy to understand and less time consuming as correct forms have already been provided. Lee (2005) also found that learners preferred to receive direct corrections to their errors as they believed that this approach helps them correct their errors easily. This might demonstrate that EFL

classrooms are teacher-centred where the teacher provides direct feedback and learners rely on their teacher's corrections. On the other hand, some learners prefer to have indirect error correction because they think it would stimulate them to make extra effort to correct their errors on their own. Ferris and Roberts (2001) noted that ESL learners valued indirect feedback method by underlining and coding errors as these strategies develop learners' self-editing skills.

Regarding the feedback focus, although some students preferred to receive feedback that focuses more on aspects such as grammar and vocabulary, others wanted some attention to be given to other aspects such as content and organisation. However, in Libyan writing classes, teachers encourage their learners to pay more attention to writing accuracy than fluency and they think that students should produce error-free texts.

However, students had different opinions concerning the focus of teacher written feedback and some of them link the focus of teacher feedback to their needs and weaknesses. They believed that correcting their errors themselves would encourage them to engage in learning and understand their errors and not to repeat them in their future writing. These observations suggest that the students experience, and needs influence their preferences and attitude towards written feedback.

#### 5.7.1.2. Students' Strategies in Processing Corrective Feedback

Regards students' strategies, the data revealed that the most common strategy students employ when revising their texts is careful reading while paying attention to their teacher's feedback. With regard to the editing strategy, learners utilise a combination of what sounds right, consulting a learnt rule, or correcting the error. They also employ a strategy of asking their instructor's help when they find corrective feedback difficult to understand. However, this might be constrained by (a) the teacher' availability, and (b) the relationship between the teacher and students, which may make students reluctant to approach the instructor. They also suggest some strategies that may improve their writing abilities such as considering their teacher's feedback by reading it carefully and discussing it with the teacher, having oral communication such as one to one meetings to discuss their feedback with their teacher, searching solutions for their errors by consulting a learnt rule in their notes they made in class and searching independently in grammar textbooks for a rule that they have not yet learnt, developing spelling by using dictionaries, memorising vocabulary items, using the internet to broaden their knowledge, and practicing writing at home using model samples.

Students' description of the writing instruction suggests that their teacher applied a product approach to writing, in which the ultimate focus is on learners' grammatical and lexical knowledge development (Badger & White, 2000). The teacher also followed the product approach stages which include familiarisation stage, and free writing stage. All students appreciated the value of having multi-drafting as a strategy that can help them to become more familiar with the nature of their errors. In several previous studies, it has been noted that learners rarely revise their previous essay to find corrections or/and rarely use a grammar book to understand their errors nature. Therefore, Cohen and Cavalcanti suggested that learners with different proficiency levels should be trained to employ other strategies such as "judicious use of revision, incorporating the teacher's comments…" (Cohen & Cavalcanti, 1990: 174). This could indicate that asking learners to do revision practices is likely to foster SLA as "producing the correct form may help learners automatize their L2 production" (Loewen, 2004, p: 157).

#### 5.7.1.3. Students' Difficulties when Processing Corrective Feedback

The students highlighted that the main problem when processing teacher written feedback was understanding it. This difficulty varied according to the way of providing feedback. Some students who received the direct corrective feedback state that they find difficulties in understanding the teacher's hand writing. Some find the indirect feedback by circling is not clear because it does not either give them information about the nature of their errors or give them suggestions to correct them. For the usual comments they normally receive from their instructor, all the participants claim that they are very general, and they find it difficult to identify which part of their written text these comments refer to. Similarly, students stated that they found difficulties to read these comments. Others reported that teachers' comments only focused on the grammar and the spelling but not on the content and organisation of the written text. Some students said that it is always possible that they have problems understanding of their teacher's feedback This could support the findings of Chiang (2004) who investigated EFL learners and found that learners "did not understand the correction codes and symbols…, they could not see their teacher's handwriting…, they did not agree their teacher comments… students had difficulties understanding their teacher's hand writing …, students did not understand their teacher's comments about ideas and organisation" (Chiang, 2004: 104)

## 5.8. Conclusion Remarks

In this chapter I have presenting the qualitative data analysis findings, which highlighted that all the students made errors in their writing and all the students reported poor quality writing experiences in the secondary school. Furthermore, all the participants think that grammar instruction should be integrated with other language skills. All participants believe that feedback is beneficial for developing their writing skills. Students in this study see the value of having comprehensive corrective feedback and they prefer to have feedback on language errors, content and organisation. In addition, all the participants value the multi-drafts approach rather writing once. The findings also suggested that the type of feedback (direct or indirect) depends on learners' preferences. The most common strategy for revision following teacher corrections is reading through the texts. Students' strategies in self-editing are a combination of what sounds right, a learnt rule, and asking help from the teacher. Besides, some students show partial understanding of the feedback, but do not know what to do. Some of them ignore corrective feedback because of past negative experience. However, all the participants believe that holding a discussion afterwards with the instructor will add advantage to the use of corrective feedback. Finally, the common difficulties encountered by students when dealing with corrective feedback are misunderstanding of feedback, difficulty in reading the teacher's feedback, the type of feedback provided, difficulty in remembering language rules, and difficulty in asking for their teacher's help.

# Chapter 6. Discussion and Conclusion

## 6.1. Chapter Overview

This study examined how effective comprehensive written feedback (direct & indirect) is in developing EFL learners' writing accuracy, structural complexity and lexical diversity during revision, and it investigated how effective comprehensive written feedback (direct and indirect) is in developing EFL learners' writing accuracy, structural complexity and lexical diversity when producing new texts. Moreover, it explored the changes appearing in grammatical and non-grammatical error categories over time after the provision of comprehensive written feedback (direct and indirect). Furthermore, it examined learners' strategies applied when provided with corrective feedback. It also identified the factors enhancing and hindering the learners when processing corrective feedback. The objectives of the current research were achieved by gathering quantitative data (quasi-experiment) and qualitative data (students' interviews and case narratives) from the first-year undergraduate students of English department in Azzawia University, in Libya.

This chapter is devoted to discuss the results and answering the research questions of this study. Then it presents some implications and suggestions to writing teachers as well as the educational institutions. The implications and suggestions are grounded on the results of this study and on the findings from previous studies that suggested the use of feedback in L2/FL writing classrooms. Finally, limitations of the study and suggestions for further research are introduced.

## 6.2. Discussion of the Results

The findings of the study indicated that the two different type's feedback- direct and indirect corrections improved learners' accuracy during revisions as well as when producing new texts over time.

As for the revision time, overall, direct written corrective feedback was more successful than indirect feedback in improving learners' overall accuracy. This can be linked to the findings obtained from the qualitative analysis showed that most of the students who had direct corrections on their errors reported that they copied the correct forms from their teachers' corrections and used them in the revised texts. These results add to the findings of earlier research, which has revealed significant effects of direct written corrective feedback on revision texts (e.g., Ashwell, 2000; Bitchener, 2008; Bitchener & Knoch, 2008, 2009a; Ferris & Roberts, 2001). In addition, some previous studies have targeted

on single error category (e.g., Bitchener, 2008; Bitchener & Knoch, 2008, 2009a, 2010b; Sheen, 2007, 2010a) and others targeted multiple errors, the corrective feedback was given on one writing task (e.g., Ellis et al., 2008; Truscott & Hsu, 2008; Van Beuningen et al., 2012). Similar to the previous research on the effectiveness of written corrective feedback, which targeted a number of errors types this study results showed that direct corrective feedback group significantly improved their written accuracy on the revision stage task (e.g., Ellis et al., 2008; Truscott & Hsu, 2008; Van Beuningen et al., 2012). Correspondingly, indirect corrective feedback had also a significant effect on students' accuracy in their revised texts. In this case, this finding supports some researchers who have argued that indirect corrective feedback will be more beneficial because learners have to engage in a deeper form of language processing, when they self-edit their own writing (e.g., Ferris, 1995; Lalande, 1982). With regard to grammatical accuracy, both direct and indirect feedback significantly improved learners' grammatical accuracy as compared with the control group, and similar findings were found with the non-grammatical errors. Considering learners' structural complexity and lexical diversity during revision: the findings revealed that direct and indirect corrective feedback did not negatively affect learners' complex structures or lexical choices.

The crucial concern is whether written corrective feedback has long-term effect. This study shows that unfocused corrective feedback results in long-term learning. The data presented in Chapters 4 and 5 found that students who received comprehensive corrective feedback made fewer errors in new pieces of writing than learners whose writing had been given general comments. Furthermore, this positive effect of corrective feedback was not only visible one week after students received the corrections but also retained over a six-week period as will be discussed in the two following paragraphs.

With respect to transfer effects of written corrective feedback on new texts during the immediate post-test stage, the evidence is compelling, because there were statistically significant differences in accuracy improvements between the experimental groups and the control group. Both direct and indirect corrective feedback reached statistical significance on the immediate post-test stage. The effects also differed depending on whether the errors were grammatical or non-grammatical. However, both direct and indirect corrective feedback significantly affected grammatical and non-grammatical accuracy. The indirect corrective feedback was statistically more significant than direct feedback on both types of error categories. The results showed no reduction in structural complexity and lexical diversity in new texts on the immediate post-test stage.

For delayed transfer effect, there were differences in effect between the feedback groups and the control group in the delayed post-test. As to overall accuracy, both direct and indirect feedback significantly affected learners' overall accuracy. In treating the grammatical errors, indirect feedback outperformed direct feedback. No significant gain found in the direct feedback with regard to its effects on grammatical errors in week 8. By contrast, indirect feedback significantly affected grammatical accuracy on the delayed post-test stage when learners produced new texts with less non-grammatical errors. However, both types of corrective feedback had a similar significant positive effect on non-grammatical errors in learners' final texts. The findings also showed increase in learners' structural complexity and lexical diversity in the delayed post-test amongst the groups.

In addition, the differences across the texts, which students wrote during the experiment, could be partly associated to other factors such as the nature of errors, types of corrective feedback, task topics, learners' attitudes, learners' experiences of writing in general and feedback in particular. With respect to the nature of errors, the corrective feedback effects mostly apply to grammatical errors as well as non-grammatical errors. This possibly will be clarified by the difference between treatable and untreatable errors. Ferris (1999) proposed that written corrective feedback could be more beneficial when focused on 'treatable errors', that is, errors connecting to language forms that appear in ' a patterned, rule-governed way' (p.6)( e.g., verb tenses and form, subject-verb agreement, article usage) than 'untreatable' errors (e.g., word choice, unidiomatic sentence structure, missing or unnecessary words). The findings of this study appear to support this suggestion by revealing that feedback was more effective in the case of language forms that are governed by a set of syntactic and morphosyntactic rules than those that are not, such as word choice, and prepositions. In-depth investigation of students' accuracy improvement in Chapter 5 showed that one of the case-study participants IDS1 committed some errors such as verb tenses, prepositions, spelling, and word choice in her initial text. She made several verb tenses errors in her pre-test, she was able to reduce those errors after receiving corrective feedback which encouraged her to correct them relying on a learnt rule. One the other hand, her preposition errors were less responsive to written corrective feedback because prepositions are not rule governed in a clear way and they need to be learned lexically. Similarly, the corrective feedback DS1 received on the articles errors resulted in improvement in her delayed post-test.

With regards to the types of corrective feedback, Truscott's (2001; 2007) hypothesis that error correction might lead to improve accuracy of non-grammatical errors, but that grammatical errors are not susceptible to corrective feedback. However, the results presented in Chapter 4 led to the suggestion that direct and indirect corrective feedback might be beneficial to grammatical and non-grammatical accuracy development over time. This conclusion was grounded on the observation that, during the experiment, students who were given direct and indirect feedback reduced their grammatical and non-grammatical error rates compared with their performance during the pre-test. Ferris (1999) predicted that direct corrective feedback could promote grammatical accuracy development, whereas, non-grammatical accuracy would benefit most from indirect corrections. The results from the qualitative study presented in Chapter 5 brought to light that the effectiveness of the different corrective feedback methodologies on different error types could be the same. IDS1 received indirect corrective feedback on her errors and she was able to reduce her verb tenses errors (i.e., grammatical errors) over time, whereas, her word choice errors increased. By contrast, DS1 who had been given direct corrections was able to improve her word choice (non-grammatical error) over time. The same findings have also been discussed in other studies that have revealed more accuracy improvements when corrective feedback targeted treatable grammatical errors than untreatable non-grammatical errors (e.g., Ferris & Roberts, 2001; Bitchener et al., 2005). Indeed, the difference between treatable and non-treatable errors has not been clear cut and could differ depending on the grammatical rules. For instance, within grammatical rules, such as those that are clearer than others like past tense -ed contrasted with the use of definite articles. There are also some other rules that might be easy to clarify and teach but not easy to learn such as third person singular 's'. Such differences might affect the efficiency of different feedback types and consequently could also clarify some of the differences found in the results of this study linked to the effect of feedback on different texts that students wrote after receiving written corrective feedback.

Concerning task topics issue, the differences in task features can lead to degrees of difficulty or familiarity. Because the task-essential vocabulary was quite different in the three writing tasks, this may indicate a task effect and might explain some of the differences in the effectiveness of feedback on the accuracy of new texts.

As the present study feedback targeted a wide range of learners' errors of linguistic errors, this could also have produced cognitive overload for some students and broken up their feedback processing (Van Beuningen, 2012). In this case, processing comprehensive

corrective feedback might have been cognitively challenging for some learners. Some differences regarding feedback perception may also have to do with other factors such as learners' background and past experiences. For example, some participants' misunderstanding of direct and indirect corrective feedback can be attributable to the fact that they might not have previously received feedback in the form of metalinguistic information or circling. One of the case studies IDS3 who received indirect corrective feedback was unable to improve the errors she made during the experiment. During the interview, she guessed wrongly what the error was in the circled phrase and applied a different rule to something that was not actually wrong. This seems as an inherent problem with indirect corrective feedback. In addition, in other occasions, she substituted some errors using other errors, for example, she suggested that the error was a word choice problem and she did not notice the tense problem in the same sentence. This would demonstrate that indirect corrective feedback requires more active engagement from the part of the student. On the other hand, IDS1 who also had indirect error corrections on the errors, she was successfully to develop them over time. Similarly, DS1 and DS3 received the same type of corrective feedback (i.e., direct correction) but they dealt with it differently. While DS1 was able to correct not only on the revision stage, but also on the immediate and delayed post-tests, DS3 did not entirely understand the basic rules behind the errors he committed. This might indicate that students' language proficiency level plays an essential role in processing written corrective feedback.

Learners also require to be motivated to engage positively with feedback because it might lose its beneficial roles when students misperceive its goal (Van Beuningen, 2012). In addition, students' inner factors of attitudes and motivation might influence the success of engagement with corrective feedback (Storch, 2010; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002). Ferris (2003) noted that a limited level of motivation with EFL learners to use the feedback they were given might be a further reason for the absence of a positive effect. The qualitative data presented in Chapter 5 provided some clues on why students fail or succeed to process the corrective feedback they were provided with. One of the case studies did not show any sign of improvements. DS3 expressed that he was not happy to have a lot of red pen corrections on his pre-test texts. Consequently, that led him to ignore his teacher' corrections and rewrite the text again with almost similar errors he made in the first draft. Furthermore, his past experience and his attitude made him dislike writing because he felt he was less able to do so. IDS1, on the other hand, her motivation and experience affected positively her processing of corrective feedback.

Although the reduction of error rates over time is encouraging, the intervention of some other factors makes it difficult to evaluate whether the developments should be attributed to the feedback provision as such or to other factors.

The present study also considered some factors might make learners' perception and processing CF distinctive. The interviews results revealed that a sizable amount of interview participants held positive opinions towards comprehensive explicit grammar corrections and a favourable attitude toward error correction, especially feedback on the content and the organisation of their written texts. The findings demonstrated that students preferred comprehensive to focused corrections. Although many learners preferred direct feedback, other students expressed strong desire for more self-editing practices. The students believed that written corrective feedback as a learning tool that helps them to know about their errors, correct their errors and learn more about their errors in order to avoid making them in future. Besides, written feedback corrections simply motivated them to scrutinise more careful what they write using the language accuracy knowledge they have already learned. These findings are similar to the results of other studies, which revealed that the learners pay more attention to their writing accuracy than writing fluency, and they think that they should produce error-free texts (e.g., Leki, 1991; Chiang, 2004; Amrhein & Nassaji, 2010).

## 6.3. Answers to the Research Questions

The research questions, based on the findings of this study, are answered in the following sections.

### 6.3.1. How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity during revision?

The results from the quasi-experiment revealed that the direct corrective feedback had more positive effects on the learner's overall accuracy than indirect corrective feedback at revision time. Furthermore, the findings from the students' interviews as well as from the case narratives also suggested that most of the participants preferred to receive explicit direct corrective feedback on their errors. They claimed that direct corrective feedback is clear, helpful in drawing their attention to the correct form, assisting them to remember these forms of their errors and avoid repeating them, and less time consuming when applying it in revised texts. Regarding students' structural complexity, the findings from the experiment showed that direct and indirect corrective feedback had no noticeable

effect in either reducing or increasing learners' language complexity in their revised texts. Similarly, the results indicated that there was no reduction and even improvement in the lexical use in students' written texts during the revision after providing them with direct and indirect corrective feedback.

### 6.3.2. How effective is comprehensive written feedback (direct & indirect) in developing EFL learners' writing accuracy and complexity when producing new texts?

Based on the experiment results, the findings indicated that both direct and indirect corrective feedback developed the participants' overall accuracy during the immediate post-test. Similarly, in the delayed post-test, the experiment results showed that the students' overall accuracy was developed when students produced new texts six weeks after providing them with direct and indirect corrective feedback. This may be attributable to the fact that some students, in their interviews, elaborated that written corrective feedback helps them to understand the nature of their errors, engages them in looking for solutions to overcome these errors and encourages them to do more search on the errors and study hard to avoid committing them in future. With regard to learners' structural complexity and lexical diversity, the results showed direct corrective feedback developed students' structural complexity and lexical diversity in the immediate post-test. Furthermore, the findings revealed that the indirect corrective feedback had no negative effect on the learners' structural complexity as well as on their lexical diversity. However, it was noticeable that direct and indirect corrective feedback had a similar impact on developing earners' lexical diversity when producing new texts in the delayed post-test. During the texts analysis, it was observed that some students shorten their written texts over time. After discussing this issue with them in the interview, they attributed that to the difficulty of the task topics in terms of lacking the knowledge about it, to the time that was given to write a certain number of words as well as to the fact that they were embarrassed by the number of errors which they felt they are probably making. Thus, the results of current study provide evidence against Truscott's (1996, 2004, 2007) claims that CF influences negatively on the structural complexity and lexical diversity in learners' writing by suggesting that corrective feedback neither leads to avoidance, nor results in a reduction of lexical and/or structural complexity of learners' writing.

### 6.3.3. How effective is comprehensive written feedback (direct & indirect) in improving grammatical and non-grammatical errors over time?

During the pre-test stage learners made different errors: grammatical errors such as verb tenses, prepositions, articles, plurals, subject/ verb agreement and etc., and non-grammatical errors like spelling, punctuation errors, word choice and so on. These errors were treated by two different types of corrective feedback direct -providing the corresponding correct form- and indirect – indicating the place of the error by circling it. The effectiveness of corrective feedback was measured by overall error rate comparison, and the findings showed that the different types of errors changed accordingly over time. With respect to students' grammatical errors during revision, the results indicated that learners who received direct and indirect corrective feedback were successfully able to reduce their grammatical error rates in their revised texts. While some direct group learners reported that they copied the corrected forms provided by their instructor, however, some corrections were not understandable and they students applied their corrections according to pervious learnt rules. The indirect group students edited their errors by a combination of what sounds right and remembering grammatical rules. This can be a reason for this noticeable improvement in students' grammatical accuracy during the revision. As to the non-grammatical errors, learners in both direct and indirect groups improved their non-grammatical errors at the revision time. Based on case narratives, some students from direct feedback group used the correct forms provided by the teacher. Similarly, to the grammatical errors, indirect corrective feedback students reported that they correct these types of errors based on what sound right or asking the teacher.

During the immediate post-test, the grammatical as well as non-grammatical error rates declined when students produced new texts a week after corrective feedback provision. The indirect group's error rates of both grammatical and non-grammatical errors significantly decreased. With regard to the delayed post-test, both direct and indirect groups made less non-grammatical errors. Both the direct and indirect group learners were noticeably able to increase their grammatical knowledge and made less grammatical errors in their final texts. This may also be supported with that fact that most participants appreciated the value of the corrective feedback and elaborated that feedback they were encouraged to improve their language by studying hard, using grammatical books, surfing the internet and doing private courses.

### 6.3.4. How do EFL (Libyan) students apply direct and indirect comprehensive feedback to improve their writing accuracy?

The participants in the interviews and the case narratives viewed feedback as a significant methodology that aids them to boost their language learning in general and develop their writing skills particularly. Regarding students' strategies, the interviews and case studies data revealed that the most common strategy learners employed when revising their texts is careful reading with paying attention to their teacher's feedback. With regard to the editing strategies, some learners utilised a combination of what sounds right, and consulting a learnt rule to correct their errors. In addition, they employed the strategy of asking their instructor's help when they found corrective feedback difficult to understand and / or illegible to read. There were other learners who showed partial understanding to the corrective feedback (i.e. they knew what was not correct in their texts, but they did not know how to correct it). These learners utilised some strategies such as changing the error by replacing it by another word and/or ignoring it. However, all the participants suggested some strategies to enhance their writing abilities in future such as considering their teacher's feedback and taking it seriously, suggesting having oral communication to discuss their feedback with their teacher, searching for solutions to their errors in grammar books, developing spelling by using dictionaries, memorising vocabularies, searching the internet to find extra materials that can help their English learning in general and their writing skills in particular, and practicing writing at home using model samples.

### 6.3.5. What factors might enhance or hinder students to benefit from written corrective feedback?

The previous section has already shed light on some of strategies that enabled students to benefit from the corrective feedback. The attention given to students' weaknesses via corrective feedback can boost students' motivation to learn more about their errors. The results of the quasi-experiment demonstrated the value of comprehensive corrective feedback either direct or indirect in improving students' linguistic and lexical errors over time. With regard to the data from the interviews and case studies, some respondents reported that written corrective feedback alone is not enough. They emphasised the importance of further explanation and discussion about their errors in order not to make them again in future. Therefore, teacher's assistance during the revision helped some learners to effectively deal with feedback.

The factors that enhanced and/or hindered students to benefit from written corrective feedback include learners' beliefs and attitudes towards corrective feedback, these beliefs can be translated into their behaviour in dealing with corrective feedback. The findings from the qualitative data showed that some learners' attitudes and beliefs were formed by both negative as well as positive experiences. For instance, some students had negative experiences in the past with teacher corrective feedback, which conceptualised a notion in their minds that error corrective feedback might indicate their low level, and thus it was better to avoid reading it. On the other hand, some learners held a positive attitude towards corrective feedback because they thought it carries different meanings including the teacher's interest (whether teacher's focus is on form or on other issues like organisation and content, a sign of their learning progress (i.e., enables them to know their weaknesses), and an encouragement to keep working hard (i.e., a promoter for hard-working).

Guénette (2007: p. 52-53) noted that the success or failure of corrective feedback depends on some factors such as the classroom context, the type of errors students make, the type of writing they are requested to produce, and a number of other variables that are as yet unknown. The findings of the interviews and case studies revealed that there were several factors that played an important role in the effectiveness of corrective feedback and also how learners perceive it. These factors included previous and current grammar instruction, previous and current writing instruction, the task topic, the pre-lesson instruction, the fact that a time limit was given for the writing, the revision and revision time, multiple drafts method, the way of corrective feedback provision, students' preferences as to the type of corrective feedback, the amount of corrective feedback, and the errors to be corrected.

It has been argued that factors such as students' language awareness could have an influence on the degree to which they are able to benefit from corrective feedback (e.g., Ferris, 2004; Hyland & Hyland, 2006). Most of the participants reported that their learning experiences regarding the grammar in the university as well as in the secondary school seem to be similar. Despite having received formal grammar instruction in secondary school, most students stated that they still have difficulties in using grammatical structures accurately and properly. They mentioned the focus of grammar instruction was/is on the form not on the use. As linguistic accuracy takes up an important place in this study, students' levels of linguistic awareness varied. This assumption is supported by the fact that some learners faced difficulties and failed to correct their grammatical errors during the experiment as well as in the interview. In other words, there

were obviously considerable difference in language awareness or at least in ability to make use of feedback between the participants as discussed in Chapter 5 with regard to DS1, IDS1, DS3 and IDS3.

Another factor that affected students' reactions towards written corrective feedback is the writing experiences of the students in the secondary school. They reported that the writing lessons were very scarce, and their writing lessons seemed to be grammar revision exercises rather than actual writing. Furthermore, the type of feedback they received at that period of study was a kind of comments/ marks, which most of students thought they were useless. Regarding their writing classes in the university, they mentioned how they were different from secondary school. However, the writing courses were allocated limited time in students' timetable. The writing teachers seemed to adopt the product approach in which students only write one draft. It was observed that students' external constraints (lack of writing experience) had shaped their internal characteristics (attitude and confidence), which appeared to influence their ability to benefit from feedback. In addition, when the participants in the interviews were asked about their abilities in writing, some students seemed to have a lack of confidence. That may have lowered their engagement in the writing process and in turn kept them from benefiting as much as they might have from corrective feedback. Therefore, students' responses varied when they were asked to revise their texts. Some students said that they mostly relied on reading and intuitions to make revisions/ corrections, others started writing the same task without revising their initial texts or even reading their teacher's feedback.

Although most respondents reported they saw the value of having the revision and redrafting the first task and how that helped them to revise their errors and learn about them in order to not make them again, they found the time allocated for revision was insufficient. In addition, the students were asked to write in a limited time because their final writing exam will include a timed writing task. They discussed that the amount of time given for writing was not enough. During the experiment, they were asked to write their texts within a number of word limit (i.e. about 200-250). Some students reported that the time was not sufficient, and they deliberately shortened their writing. Students considered that as a difficulty which led most of the students to write without concentration as well as not saving some time for proof reading.

The issue of time was raised again when the learners complained about pre-writing lessons of the topics that were not sufficient to give students necessary knowledge about the topics. Consequently, that resulted in a reduction in students' texts length.

Regarding the task topic, the task topics can be also another factor that affect students written performance, specifically, the level of knowledge about, interest in, and familiarity with them. Some students expressed that they faced difficulty to write about some tasks. Furthermore, when interviewed, they highlighted some of the difficulties facing them while dealing with feedback such as some learners from the direct group did not understand their teacher's feedback due to the illegibility of teacher's hand writing. On the other hand, some indirect group learners also reported the corrections were complicated and vague, therefore, they ignored them. Finally, the difficulty in approaching the teacher for help, was one of the issues raised in the interview. While some students had a chance to ask the instructor about their errors and feedback, others failed to approach her due to the number of the students in the classroom.

The learners believed in the effectiveness of the multi-drafting approach, however, they are asked to write only one draft in their normal writing classes. All the participants preferred to receive major corrections to their grammatical and non-grammatical errors with much focus put on the content and organisation. They believed that utilising this way is beneficial for them to identify their errors and understand the nature of these errors. Most students thought that it should be the teacher's role to correct their errors and if s/he does not do that, they may think that either what they have written is correct, or their teacher is not interested in their progress. With regard to the type of corrective feedback, some learners had more tendencies to direct corrective feedback because it contains an indication of the error and the corresponding correct forms. Whereas, some other students preferred to be provided by indirect feedback because it will encourage them to engage in more language processing when they are self-revising and correcting their writing.

## 6.4. Implications

This study has found that students' accuracy improved over time after being provided with comprehensive corrective feedback (direct and indirect). In addition, it realised that the success and failure of the effectiveness of corrective feedback can be influenced by learners' attitudes as well as other factors, which may have some similarities to their counterparts in other contexts. For instance, one of recognised factors was 'the students 'preferences for a particular type of corrective feedback but not another that influenced

students' response to teacher's corrective feedback. Therefore, the following implications might be helpful for teachers of writing to develop their practices in providing suitable feedback that meets learners' needs and that improves their writing abilities.

### 6.4.1. Implications for Pedagogy

As this study took place in a real-world class situation, it is worth considering some pedagogical implications. One of these implications is the value of written corrective feedback as a valuable instrument that L2/ FL teachers can employ to help learners improve their written accuracy. The present study findings have shown that corrective feedback can be beneficial both as an editing tool that not only assists students to improve a revised text during revision, but also benefits students when producing a new text. Both direct and indirect feedback treatments have been demonstrated to be effective in long-term accuracy gains. This study showed that corrective feedback enabled students to use the targeted features more accurately in new writing, led them to realise the nature of errors, and generated their engagement with their errors. These beneficial effects could be anticipated to be greater if learners are offered corrective feedback on additional occasions.

The second important pedagogical implication arising from this study is the potential learning effect of the comprehensive written corrective feedback because the robust evidence on the long-term effects of written corrective feedback has come from studies investigating the efficacy of focused correction that treating one specific type of errors (e.g. Bitchener, 2008; Bitchener & Knoch, 2008; Bithener & Knoch, 2009; Bitchener & Knoch, 2010a; Bitchener & Knoch, 2010b; Ellis et al., 2008; Sheen, 2007; Sheen, 2010b). It has been pointed out that when students are provided with corrective feedback, the teachers usually aim to develop learners' overall accuracy, not focus on only specific linguistic features (e.g., Ferris, 2010; Storch, 2010). Therefore, it can be claimed that comprehensive corrective feedback is a more authentic feedback methodology (e.g., Anderson, 2010; Ferris, 2010; Hartshoen et al., 2010; Storch, 2010). This study even though still an experiment in set-up tried to explore the efficacy of comprehensive feedback in real classroom conditions. The findings of this study could thus be recognised of great relevance to teachers of writing in FL/L2 contexts.

A third implication that can be considered from this study is that teachers should provide their learners with the opportunity to revise their texts based on the feedback they receive on their errors. Asking learners to do revision could be likely to promote learning as

“producing the correct form may help learners automatize their L2 production” (Loewen, 2004, p.157). Furthermore, the value of revision is to stimulate students’ motivation to engage with the provided feedback. One of the case-studies participant reported in Chapter 5 showed, for instance, that the possible roles of revision are not assisted when the learner misperceives its aim. Some researchers have shown that the success of corrective feedback may be influenced by affective factors such as attitudes towards a specific type of corrective feedback, perceived goals, and motivation (e.g., Bruton, 2009b; Goldstein, 2006; Storch, 2010; Storch &Wigglesworth, 2010; Swain & Lapkin, 2003).

Another implication which can be derived from the work at hand is that the extent to which learners can gain benefits from direct and indirect corrective feedback might be dependent on the type of errors targeted. It has been argued that the explicit corrective feedback such as direct corrections, are more effective in treating complex errors such as lexical errors, while indirect corrective feedback could result in more durable accuracy when targeting simple features such as punctuation. Ferris (2010) suggested that direct and indirect feedback can be used for different goals. The indirect corrective feedback could be more beneficial when the focus is on improving learners’ writing skills because it demands a more active form of learner engagement. On the other hand, direct corrective feedback can be employed when the main opt for language learning because it is clear and explicit and easy to understand. Therefore, based on teachers’ goals and the types of targeted errors, direct and indirect feedback can complement each other. The same holds for focused (selective) or unfocused (comprehensive) correction strategies. Teachers can choose which strategy they think is most appropriate in specific context.

This study concerns not only students’ written products but also their own testimony about what was most beneficial to them. In most situations, teachers might have minimal control over learners’ individual factors; they, however, can be reminded that their learners come with attitudes towards the writing course and opinions about themselves. These attitudes are likely to affect how students respond to the course in general and feedback in particular. Therefore, teachers should consider ways to structure each particular writing task in ways that increase learners’ motivation and decrease anxiety: while extrinsic factors can encourage learners toward taking the further actions that they might need to succeed, excessive task anxiety can inhabit them from indicating their current knowledge. Nevertheless, even focused, explicit feedback such as that provided in this study might fall short of meeting student’s needs if there are no chances for follow

up discussion and clarification. Therefore, teachers can also push students aiding them realise concrete evidence of their improvement (such as discussing students' weaknesses with them).

## 6.5. Limitations of the Study

One of the limitations of the present study is that the sample size was fairly small. Furthermore, the texts learners wrote were in different lengths. To consider text length difference, amounts of errors (ratio of error rates per 10 words) were used in the analysis. Nevertheless, variation in length is likely to be recognised as a factor and thereby with the small sample size could be taken to partly clarify some of non-significant results. In other words, with regard to within-group comparisons at different time points, the task effect is potentially quite significant, as improved performance over time might be either the result of learning, or of an easier task.

Furthermore, though attempts were made to have successive writing tasks with similar level of difficulty, there is a possibility that learners responded to these tasks differently at different times. It is also worth noting that, although pre-lessons were given to certify the content of the students' texts would be similar, text length varied noticeably, with some learners keeping their writing to bare minimum.

Finally, different language forms might respond differently to different feedback types in ways that have not yet been appropriately understood. Feedback impacts could also rely on a number of variables including the nature of the target structure, their complexity, frequency, learners' prior knowledge, etc. as well as a host of other contextual and effective variable, consequently, while studies of feedback efficacy including the current study provide insights into the relative effectiveness of some feedback forms in some contexts, they cannot find a clear advantage of one type of feedback in all context. Thus, the practice of different feedback types should be regarded more as an issue of suitability rather than superiority.

## 6.6. Further Research Implications

Although this study provided clear indication in support of written comprehensive feedback, there are a number of limitations that discussed in the previous section and need to be acknowledged and considered in future research. The context of this study is different from the contexts other studies were conducted in. Although several researchers have called for research within different contexts (e.g., Manchón, 2009; Oertega, 2009;

Révész, 2007), the findings across contexts might not readily comparable, or cannot be automatically transferred to any other contexts. The present study sample was at the university level where students had received great amount of explicit grammar instruction. As previously suggested, it might be that learners had good knowledge about L2 which enabled them to benefit from indirect corrective feedback, and that another context would have led to different conclusions on the differential value of direct and indirect corrective feedback. As a result, research would be needed in other contexts in EFL/ESL to empirically test the generalisability of the current study findings. As the present study's focus was exclusively on the efficacy of comprehensive written corrective feedback on learners' accuracy (i.e. major error corrections), further research on learners' accuracy using more focused corrections would have been interesting to further investigate the durability of corrective feedback.

In particular, the findings from the interviews and the case studies presented in Chapter 5 was an attempt to explore the learners' inner process and their perceptions of, attitudes towards, and level of motivation related to different corrective feedback. In order to gain a full understanding of the role of corrective feedback, future research that considers product data, process data, and socio-cultural data would be necessary.

There is a necessity for more research to investigate how different learners from different backgrounds or different teaching context perceive the importance of error correction and also what factors may also mediate their perception. Such studies are tremendously warranted to advance our understanding of the role of corrective feedback in different contexts.

## 6.7. Conclusion

To sum up, the results of this study suggest that both types of corrective feedback- direct and indirect comprehensive- can improve learners' accuracy during the revision of the same texts. This builds upon the demonstration of the effectiveness of written corrective feedback which has already been established in the previous studies (e.g., Bitchener, 2008; Bitchener & Knoch, 2008, 2009a, 2009b, 2010; Ellis et al., 2008; Sheen, 2007, 2010b; Shintani &Ellis, 2013; Shintani et al., 2014). The current study is one of other studies (e.g., Truscott & Hsu, 2008; Van Benuningen et al., 2012; Karim & Nassaji, 2018) that have provided corrections on all existing errors in learners' writing texts and investigated its efficiency for the development of accuracy in new writing texts. Bitchener and Ferris (2012) reported that Sheen (2007) supported "the use of focused feedback

asserting that focused CF can contribute to grammatical accuracy in writing" (p.556). The findings of the present study, however, revealed that unfocused (i.e., comprehensive) corrective feedback can also have significant effects on learners' writing accuracy. In other words, while the effectiveness of focused feedback has already been established in earlier research, the present study adds to the smaller body of evidence that comprehensive feedback can also be a beneficial pedagogical methodology for L2/ FL teachers to help learners develop their accuracy in writing. It is noticeable that in the current study, direct comprehensive feedback showed consistent positive effects on both revision accuracy and on subsequent new pieces of writing. This finding contributes to the theoretical debate over direct and indirect corrective feedback types for L2/ FL development. Ferris (2004, 2006) claimed that indirect feedback is more useful than direct feedback because indirect feedback enables learners to engage in problem-solving learning and more profound forms of language processing. On the other hand, other researchers have argued that the more direct forms of corrective feedback are superior to indirect feedback "as the former may help learners to better notice their interlanguage problems, presenting them with clearer information about the mismatch between the target and non-target forms" (e.g., Bitchener & Knoch, 2010b). The findings of the experiment in this study appear to support the argument in favour of the former, although mostly when it comes to improving accuracy of revised texts. However, the data also indicate that the effectiveness of such feedback is partly affected by attitudinal and contextual factors such as preferences and attitudes and external factors such as contextual factors of types of corrective feedback, the nature of the topics, students' language awareness, time allocated to revision, and time allotted to writing tasks.

In addition, the present study examined the students' applications of corrective feedback and identified some attitudinal and contextual factors that may play an important role in influencing learners' application of corrective feedback methodologies. The findings show that the learners in this study tend to hold positive view on written corrective feedback. They also demonstrated how students' experiences and their attitude influenced their perception of corrective feedback. Furthermore, they illustrated several strategies that learners employed when processing corrective feedback. The findings also identify students' difficulties when dealing with corrective feedback. These results suggest that learners' inner factors with other contextual factors seem to influence their strategies and abilities when processing corrective feedback. The results of this study suggest some implications for L2/LF writing teachers and for educational organisations. The key

implications are that writing teachers should respond to student writing, taking into consideration the context of teaching and learners' experiences and needs.

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# Appendices

## Appendix 1. Essay Sample from Direct Group

At this moment, In Sabratha college there is student dreaming about becoming successfull student. I have successfull Student. and every day, I go to stydy with her. also in free time in the college, she helps me for my studing. therefor, when I don't understanding something in the licture, I go to her and she explane me. My plane in the future, I hope gets a hight level in this year and next year. then I wish complete my study. I hope study mastre in libya and gets high marks. After that, I will travell to Outside to study the doctora. from this year I desided

**Appendix 2. Essay Sample from Indirect Group**

Planning for your future makes you feel confident in your self. I've many planes and achievements in the future. This planes include, Graduating, the Success, studying abroad and travelling for enjoying. I see all these planes in every day and I hope all of my planes come True.

My first plan is graduating after fourth year, and I really work hard on it. Secondly, studying abroad in the UK Insharallah as a Translator. I hope to be a good translator in the future. After that travelling for enjoyning with my husband Inshallah ☺. The Success is the most important thing and all of my planes requires

**Appendix 3. Essay Sample from Control Group (Teacher's General**

one of this majors after I finish my forth year in
English gradute because it is my childhood dream
and this major is the one of most important majors in world

Finally, I hope my dream become true.

- You still can study medicine! It's never too late! ☺
- When writing in English, ideas cannot be translated literaly from Arabic. Some words need to be changed for a better meaning. Think and write in English. ☺

Good luck.

## Appendix 4. Student's Essay Transcribed on Word Document

### Pre-test

Theres a lot of thing that i want to achive and proof for me and for others, such as to hove my own Master. Certificate and my own english school , also to have or build my own corporation which It's name Will be {Life friends} It's all to help people in my country and an other countries to help people whatever their probles was.

I hope to visit Germany, especially Berlin

Moreover i hope to have my own job, wife { the same as i am, mentality , working } How i will achive all of them ? by working hard to grodute . after that , {after some years} to finish my master study , and to believe in my self , my ability to do that with the help of the socity and people Whom surrounding me , in adittion to believe in the future which say nothing impossible , yes you can do it. Why i want to do all of this? Because I growed up dreaming with that , to be to be , to be , and because it my desigen since i was studing in the high school , I'm always trying to help people who i know or no. also because i belive in that we must help others, to give a hand to whom need it. moreover i strongly believe that how It suppose to be. the major reason behind all of that is my behovior, personality , Critical thinking. there's a quote Says 'you See things and you Say why, but i dream things that never were and i Say why not' so thank you Allah for being like that,

## Appendix 5. Student's Essay Transcribed on Word Document and Coded for Main Clauses and Subordinate Clauses Sample

Everyone ~~have~~ has something special ~~want~~ wants to have it. This passion ~~to~~ for ~~achieve~~ achieving something important in your life is the ~~treger~~ trigger to ~~move on~~ look forward to your dream. My dreams are to continue my study ~~to~~ in higher education, ~~success~~ to succeed in my work ~~feild~~ field in the future, and ~~being~~ to be a good wife and mother.

The higher education is one of my dreams, having ~~the~~ a wide knowledge and being an ~~experts~~ expert ~~on~~ at specific ~~feild~~ feild will make me strong and make me one of the ~~importants~~ important people in the feild. Also, higher education will help me to get more ~~than~~ ~~chance~~ chances to work in different places around the world. Higher education is the key to ~~keep in touch~~ communicating with other cultures When you get your ~~desire~~ desired job your dream ~~come~~ will come true. It is important for me to work in something I ~~am~~ enjoy ~~it,~~ . ~~for~~ For that reason, after I finish my higher education I ~~am~~ hope ~~after my higher education~~ to find my place in the business world. *154words*

**Revision**

Everyone has something special wants to have it. This passion for achieving something important in your life is the trigger to look forward to your dream. My dreams are to continue my study in higher education, to succeed in my work field in the future, and to be a good wife and mother.

## Appendix 6. Students' data in Excel

119 | X ✓ fx | 1

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 152 | Grammar | Non-Grammatical | Main Clause | Sub Ordinate | | 158 | Grammar | Non-Grammatical | Main Clause | Sub Ordinate | | 136 | Grammar | Non-Grammatical | Main Clause | Sub Ordinate | | 125 | Grammar | Non-Grammatical | Main Clause | Sub Ordinate |
| Total | 21 | 8 | 9 | 2 | | Total | 1 | 2 | 10 | 2 | | Total | 14 | 1 | 10 | 10 | | Total | 1 | 0 | 10 | 7 |
| Everyone | | | 1 | | | Everyone | | | 1 | | | The | | | 1 | | | The | | | | 1 |
| have | 1 | | | | | has | | | | | | life | | | | | | most | | | | |
| something | | | | | | something | | | | | | is | | | | | | wonderful | | | | |
| special | | | | | | special | | | | | | full | | | | | | book | | | | |
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| passion | | | | | | passion | | | | | | us | | | | | | I | | | | |
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| achieve | 1 | | | | | achieving | | | | | | a | | | | | | still | | | | |
| something | | | | | | something | | | | | | decision | | | | | | reading | | | | |
| important | | | | | | important | | | | | | which | | | | 1 | | it | | | | |
| in | | | | | | in | | | | | | sometimes | | | | | | till | | | | |
| your | | | | | | your | | | | | | feel | | | | | | now | | | | |
| life | | | | | | life | | | | | | sorry | | | | | | is | | | | |
| is | | | | | | is | | | | | | to | | | | | | 'The | | | | |
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| to | | | | | | to | | | | | | A | | | | 1 | | Thinking'. | | | | |
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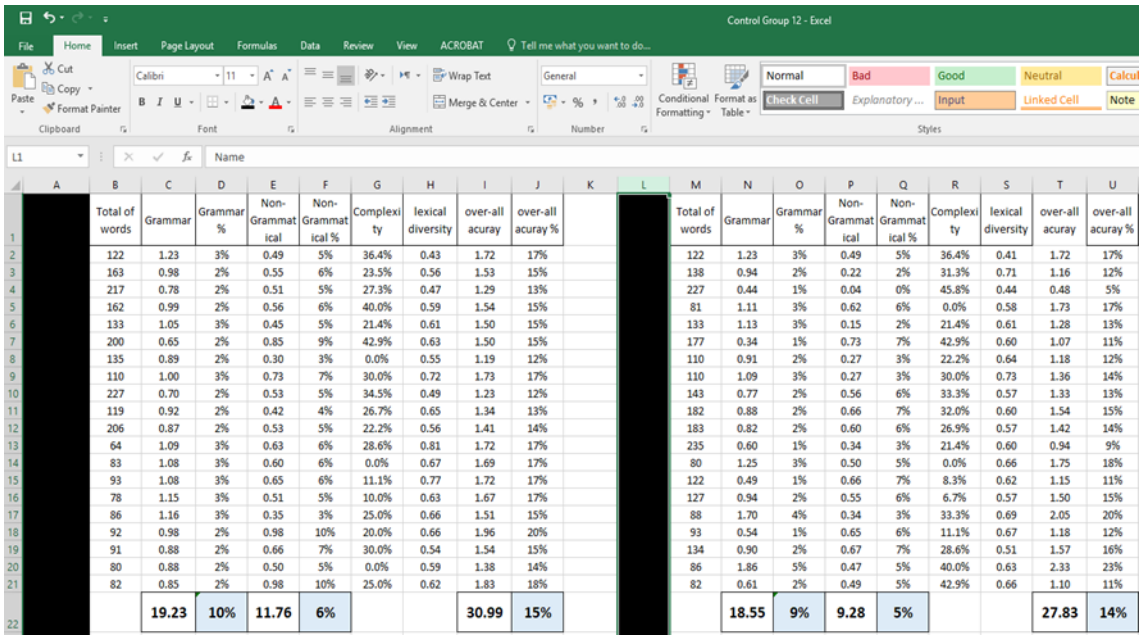
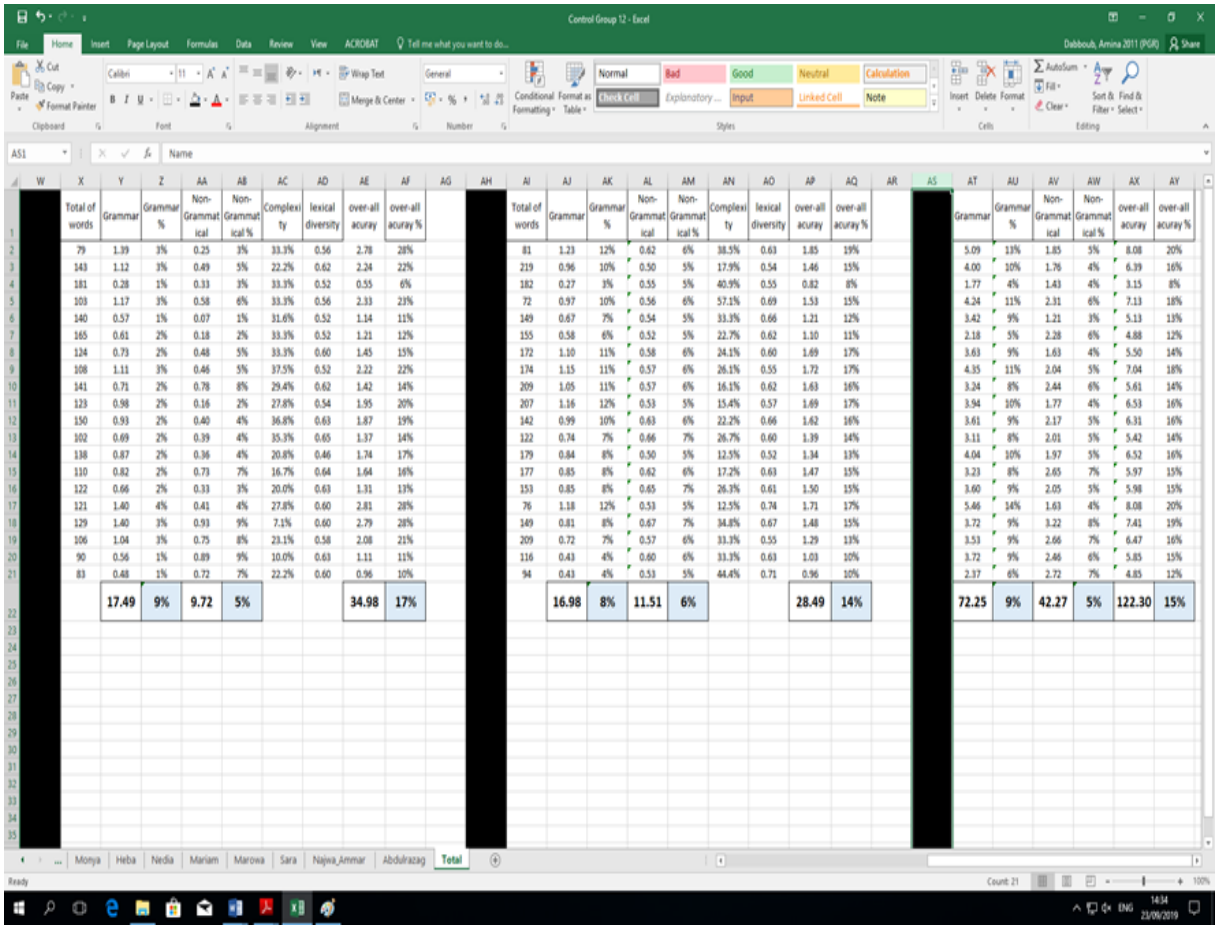
| to | | | | | | to | | | | | | decision | 1 | | | | | was | | | | |
| your | | | | | | your | | | | | | that | | | | | | written | | | | |
| dream. | | | | | | dream. | | | | | | I | | | | | | by | | | | |
| My | | | | | | My | | | 1 | | | take | | | | | | Dr. | | | | |

# Appendix 7. Control Group's Error Calculations



| [redacted] | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|
| | 122 | 1.23 | 3% | 0.49 | 5% | 36.4% | 0.43 | 1.72 | 17% |
| | 163 | 0.98 | 2% | 0.55 | 6% | 23.5% | 0.56 | 1.53 | 15% |
| | 217 | 0.78 | 2% | 0.51 | 5% | 27.3% | 0.47 | 1.29 | 13% |
| | 162 | 0.99 | 2% | 0.56 | 6% | 40.0% | 0.59 | 1.54 | 15% |
| | 133 | 1.05 | 3% | 0.45 | 5% | 21.4% | 0.61 | 1.50 | 15% |
| | 200 | 0.65 | 2% | 0.85 | 9% | 42.9% | 0.63 | 1.50 | 15% |
| | 135 | 0.89 | 2% | 0.30 | 3% | 0.0% | 0.55 | 1.19 | 12% |
| | 110 | 1.00 | 3% | 0.73 | 7% | 30.0% | 0.72 | 1.73 | 17% |
| | 227 | 0.70 | 2% | 0.53 | 5% | 34.5% | 0.49 | 1.23 | 12% |
| | 119 | 0.92 | 2% | 0.42 | 4% | 26.7% | 0.65 | 1.34 | 13% |
| | 206 | 0.87 | 2% | 0.53 | 5% | 22.2% | 0.56 | 1.41 | 14% |
| | 64 | 1.09 | 3% | 0.63 | 6% | 28.6% | 0.81 | 1.72 | 17% |
| | 83 | 1.08 | 3% | 0.60 | 6% | 0.0% | 0.67 | 1.69 | 17% |
| | 93 | 1.08 | 3% | 0.65 | 6% | 11.1% | 0.77 | 1.72 | 17% |
| | 78 | 1.15 | 3% | 0.51 | 5% | 10.0% | 0.63 | 1.67 | 17% |
| | 86 | 1.16 | 3% | 0.35 | 3% | 25.0% | 0.66 | 1.51 | 15% |
| | 92 | 0.98 | 2% | 0.98 | 10% | 20.0% | 0.66 | 1.96 | 20% |
| | 91 | 0.88 | 2% | 0.66 | 7% | 30.0% | 0.54 | 1.54 | 15% |
| | 80 | 0.88 | 2% | 0.50 | 5% | 0.0% | 0.59 | 1.38 | 14% |
| | 82 | 0.85 | 2% | 0.98 | 10% | 25.0% | 0.62 | 1.83 | 18% |
| | | 19.23 | 10% | 11.76 | 6% | | | 30.99 | 15% |

| [redacted] | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|
| | 122 | 1.23 | 3% | 0.49 | 5% | 36.4% | 0.41 | 1.72 | 17% |
| | 138 | 0.94 | 2% | 0.22 | 2% | 31.3% | 0.71 | 1.16 | 12% |
| | 227 | 0.44 | 1% | 0.04 | 0% | 45.8% | 0.44 | 0.48 | 5% |
| | 81 | 1.11 | 3% | 0.62 | 6% | 0.0% | 0.58 | 1.73 | 17% |
| | 133 | 1.13 | 3% | 0.15 | 2% | 21.4% | 0.61 | 1.28 | 13% |
| | 177 | 0.34 | 1% | 0.73 | 7% | 42.9% | 0.60 | 1.07 | 11% |
| | 110 | 0.91 | 2% | 0.27 | 3% | 22.2% | 0.64 | 1.18 | 12% |
| | 110 | 1.09 | 3% | 0.27 | 3% | 30.0% | 0.73 | 1.36 | 14% |
| | 143 | 0.77 | 2% | 0.56 | 6% | 33.3% | 0.57 | 1.33 | 13% |
| | 182 | 0.88 | 2% | 0.66 | 7% | 32.0% | 0.60 | 1.54 | 15% |
| | 183 | 0.82 | 2% | 0.60 | 6% | 26.9% | 0.57 | 1.42 | 14% |
| | 235 | 0.60 | 1% | 0.34 | 3% | 21.4% | 0.60 | 0.94 | 9% |
| | 80 | 1.25 | 3% | 0.50 | 5% | 0.0% | 0.66 | 1.75 | 18% |
| | 122 | 0.49 | 1% | 0.66 | 7% | 8.3% | 0.62 | 1.15 | 11% |
| | 127 | 0.94 | 2% | 0.55 | 6% | 6.7% | 0.57 | 1.50 | 15% |
| | 88 | 1.70 | 4% | 0.34 | 3% | 33.3% | 0.69 | 2.05 | 20% |
| | 93 | 0.54 | 1% | 0.65 | 6% | 11.1% | 0.67 | 1.18 | 12% |
| | 134 | 0.90 | 2% | 0.67 | 7% | 28.6% | 0.51 | 1.57 | 16% |
| | 86 | 1.86 | 5% | 0.47 | 5% | 40.0% | 0.63 | 2.33 | 23% |
| | 82 | 0.61 | 2% | 0.49 | 5% | 42.9% | 0.66 | 1.10 | 11% |
| | | 18.55 | 9% | 9.28 | 5% | | | 27.83 | 14% |



| [redacted] | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|
| | 79 | 1.39 | 3% | 0.25 | 3% | 33.3% | 0.56 | 2.78 | 28% |
| | 143 | 1.12 | 3% | 0.49 | 5% | 22.2% | 0.62 | 2.24 | 22% |
| | 181 | 0.28 | 1% | 0.33 | 3% | 33.3% | 0.52 | 0.55 | 6% |
| | 103 | 1.17 | 3% | 0.58 | 6% | 33.3% | 0.56 | 2.33 | 23% |
| | 140 | 0.57 | 1% | 0.07 | 1% | 31.6% | 0.52 | 1.14 | 11% |
| | 165 | 0.61 | 2% | 0.18 | 2% | 33.3% | 0.52 | 1.21 | 12% |
| | 124 | 0.73 | 2% | 0.48 | 5% | 33.3% | 0.60 | 1.45 | 15% |
| | 108 | 1.11 | 3% | 0.46 | 5% | 37.5% | 0.52 | 2.22 | 22% |
| | 141 | 0.71 | 2% | 0.78 | 8% | 29.4% | 0.62 | 1.42 | 14% |
| | 123 | 0.98 | 2% | 0.16 | 2% | 27.8% | 0.54 | 1.95 | 20% |
| | 150 | 0.93 | 2% | 0.40 | 4% | 36.8% | 0.63 | 1.87 | 19% |
| | 102 | 0.69 | 2% | 0.39 | 4% | 35.3% | 0.65 | 1.37 | 14% |
| | 138 | 0.87 | 2% | 0.36 | 4% | 20.8% | 0.46 | 1.74 | 17% |
| | 110 | 0.82 | 2% | 0.73 | 7% | 16.7% | 0.64 | 1.64 | 16% |
| | 122 | 0.66 | 2% | 0.33 | 3% | 20.0% | 0.63 | 1.31 | 13% |
| | 121 | 1.40 | 4% | 0.41 | 4% | 27.8% | 0.60 | 2.81 | 28% |
| | 129 | 1.40 | 3% | 0.93 | 9% | 7.1% | 0.60 | 2.79 | 28% |
| | 106 | 1.04 | 3% | 0.75 | 8% | 23.1% | 0.58 | 2.08 | 21% |
| | 90 | 0.56 | 1% | 0.89 | 9% | 10.0% | 0.63 | 1.11 | 11% |
| | 83 | 0.48 | 1% | 0.72 | 7% | 22.2% | 0.60 | 0.96 | 10% |
| | | 17.49 | 9% | 9.72 | 5% | | | 34.98 | 17% |

| [redacted] | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|
| | 81 | 1.23 | 12% | 0.62 | 6% | 38.5% | 0.63 | 1.85 | 19% |
| | 219 | 0.96 | 10% | 0.50 | 5% | 17.9% | 0.54 | 1.46 | 15% |
| | 182 | 0.27 | 3% | 0.55 | 5% | 40.9% | 0.55 | 0.82 | 8% |
| | 72 | 0.97 | 10% | 0.56 | 6% | 57.1% | 0.69 | 1.53 | 15% |
| | 149 | 0.67 | 7% | 0.54 | 5% | 33.3% | 0.66 | 1.21 | 12% |
| | 155 | 0.58 | 6% | 0.52 | 5% | 22.7% | 0.62 | 1.10 | 11% |
| | 172 | 1.10 | 11% | 0.58 | 6% | 24.1% | 0.60 | 1.69 | 17% |
| | 174 | 1.15 | 11% | 0.57 | 6% | 26.1% | 0.55 | 1.72 | 17% |
| | 209 | 1.05 | 11% | 0.57 | 6% | 16.1% | 0.62 | 1.63 | 16% |
| | 207 | 1.16 | 12% | 0.53 | 5% | 15.4% | 0.57 | 1.69 | 17% |
| | 142 | 0.99 | 10% | 0.63 | 6% | 22.2% | 0.66 | 1.62 | 16% |
| | 122 | 0.74 | 7% | 0.66 | 7% | 26.7% | 0.60 | 1.39 | 14% |
| | 179 | 0.84 | 8% | 0.50 | 5% | 12.5% | 0.52 | 1.34 | 13% |
| | 177 | 0.85 | 8% | 0.62 | 6% | 17.2% | 0.63 | 1.47 | 15% |
| | 153 | 0.85 | 8% | 0.65 | 7% | 26.3% | 0.61 | 1.50 | 15% |
| | 76 | 1.18 | 12% | 0.53 | 5% | 12.5% | 0.74 | 1.71 | 17% |
| | 149 | 0.81 | 8% | 0.67 | 7% | 34.8% | 0.67 | 1.48 | 15% |
| | 209 | 0.72 | 7% | 0.57 | 6% | 33.3% | 0.55 | 1.29 | 13% |
| | 116 | 0.43 | 4% | 0.60 | 6% | 33.3% | 0.63 | 1.03 | 10% |
| | 94 | 0.43 | 4% | 0.53 | 5% | 44.4% | 0.71 | 0.96 | 10% |
| | | 16.98 | 8% | 11.51 | 6% | | | 28.49 | 14% |

| [redacted] | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|
| | 5.09 | 11% | 1.85 | 5% | 8.08 | 20% |
| | 4.00 | 10% | 1.76 | 4% | 6.39 | 16% |
| | 1.77 | 4% | 1.43 | 4% | 3.15 | 8% |
| | 4.24 | 11% | 2.31 | 6% | 7.13 | 18% |
| | 3.42 | 9% | 1.21 | 3% | 5.13 | 13% |
| | 2.18 | 5% | 2.28 | 6% | 4.88 | 12% |
| | 3.63 | 9% | 1.63 | 4% | 5.50 | 14% |
| | 4.35 | 11% | 2.04 | 5% | 7.04 | 18% |
| | 3.24 | 8% | 2.44 | 6% | 5.61 | 14% |
| | 3.94 | 10% | 1.77 | 4% | 6.53 | 16% |
| | 3.61 | 9% | 2.17 | 5% | 6.31 | 16% |
| | 3.11 | 8% | 2.01 | 5% | 5.42 | 14% |
| | 4.04 | 10% | 1.97 | 5% | 6.52 | 16% |
| | 3.23 | 8% | 2.65 | 7% | 5.97 | 15% |
| | 3.60 | 9% | 2.05 | 5% | 5.98 | 15% |
| | 5.46 | 14% | 1.63 | 4% | 8.08 | 20% |
| | 3.72 | 9% | 3.22 | 8% | 7.41 | 19% |
| | 3.53 | 9% | 2.66 | 7% | 6.47 | 16% |
| | 3.72 | 9% | 2.46 | 6% | 5.85 | 15% |
| | 2.37 | 6% | 2.72 | 7% | 4.85 | 12% |
| | 72.25 | 9% | 42.27 | 5% | 122.30 | 15% |

# Appendix 8. Direct Group's Error Calculations

| | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | |
| 2 | 266 | 0.94 | 2% | 0.60 | 6% | 34.4% | 0.54 | 1.54 | 15% | | 102 | 0.59 | 1% | 0.29 | 3% | 30.0% | 0.69 | 0.88 | 9% |
| 3 | 151 | 0.93 | 2% | 0.66 | 7% | 15.4% | 0.54 | 1.59 | 16% | | 146 | 0.07 | 0% | 0.14 | 1% | 14.3% | 0.58 | 0.21 | 2% |
| 4 | 134 | 0.90 | 2% | 0.67 | 7% | 33.3% | 0.59 | 1.57 | 16% | | 139 | 0.58 | 1% | 0.22 | 2% | 31.6% | 0.58 | 0.79 | 8% |
| 5 | 173 | 0.81 | 2% | 0.58 | 6% | 30.0% | 0.52 | 1.39 | 14% | | 179 | 0.11 | 0% | 0.17 | 2% | 27.3% | 0.52 | 0.28 | 3% |
| 6 | 114 | 1.05 | 3% | 0.61 | 6% | 28.6% | 0.48 | 1.67 | 17% | | 117 | 0.60 | 1% | 0.26 | 3% | 28.6% | 0.55 | 0.85 | 9% |
| 7 | 128 | 0.94 | 2% | 0.63 | 6% | 25.0% | 0.59 | 1.56 | 16% | | 100 | 0.90 | 2% | 0.30 | 3% | 11.1% | 0.57 | 1.20 | 12% |
| 8 | 186 | 0.81 | 2% | 0.59 | 6% | 20.0% | 0.59 | 1.40 | 14% | | 130 | 0.38 | 1% | 0.23 | 2% | 23.1% | 0.67 | 0.62 | 6% |
| 9 | 176 | 0.91 | 2% | 0.68 | 7% | 15.8% | 0.59 | 1.59 | 16% | | 134 | 1.42 | 4% | 0.30 | 3% | 35.3% | 0.60 | 1.72 | 17% |
| 10 | 185 | 0.92 | 2% | 0.59 | 6% | 31.8% | 0.63 | 1.51 | 15% | | 126 | 0.63 | 2% | 0.24 | 2% | 37.5% | 0.71 | 0.87 | 9% |
| 11 | 130 | 1.00 | 3% | 0.54 | 5% | 21.1% | 0.66 | 1.54 | 15% | | 129 | 0.85 | 2% | 0.31 | 3% | 10.0% | 0.69 | 1.16 | 12% |
| 12 | 152 | 0.92 | 2% | 0.53 | 5% | 18.2% | 0.59 | 1.45 | 14% | | 158 | 0.06 | 0% | 0.13 | 1% | 16.7% | 0.58 | 0.19 | 2% |
| 13 | 196 | 1.02 | 3% | 0.56 | 6% | 38.1% | 0.54 | 1.58 | 16% | | 196 | 0.26 | 1% | 0.15 | 2% | 36.4% | 0.53 | 0.41 | 4% |
| 14 | 163 | 1.10 | 3% | 0.55 | 6% | 10.5% | 0.61 | 1.66 | 17% | | 159 | 0.31 | 1% | 0.19 | 2% | 10.5% | 0.58 | 0.50 | 5% |
| 15 | 93 | 0.86 | 2% | 0.65 | 6% | 23.1% | 0.67 | 1.51 | 15% | | 96 | 0.94 | 2% | 0.31 | 3% | 25.0% | 0.59 | 1.25 | 13% |
| 16 | 106 | 1.13 | 3% | 0.57 | 6% | 20.0% | 0.59 | 1.70 | 17% | | 110 | 0.27 | 1% | 0.18 | 2% | 20.0% | 0.62 | 0.45 | 5% |
| 17 | 78 | 1.15 | 3% | 0.51 | 5% | 40.0% | 0.67 | 1.67 | 17% | | 86 | 0.23 | 1% | 0.23 | 2% | 36.4% | 0.65 | 0.47 | 5% |
| 18 | 186 | 0.97 | 2% | 0.54 | 5% | 38.5% | 0.67 | 1.51 | 15% | | 130 | 0.15 | 0% | 0.15 | 2% | 28.6% | 0.66 | 0.31 | 3% |
| 19 | 156 | 0.96 | 2% | 0.51 | 5% | 18.8% | 0.62 | 1.47 | 15% | | 157 | 0.13 | 0% | 0.13 | 1% | 18.8% | 0.59 | 0.25 | 3% |
| 20 | 52 | 0.96 | 2% | 0.58 | 6% | 20.0% | 0.63 | 1.54 | 15% | | 76 | 0.92 | 2% | 0.26 | 3% | 0.0% | 0.57 | 1.18 | 12% |
| 21 | 85 | 1.06 | 3% | 0.59 | 6% | 20.0% | 0.64 | 1.65 | 16% | | 83 | 0.84 | 2% | 0.24 | 2% | 0.0% | 0.66 | 1.08 | 11% |
| 22 | | **19.34** | **10%** | **11.74** | **6%** | | | **31.08** | **16%** | | | **10.25** | **5%** | **4.43** | **2%** | | | **14.68** | **7%** |

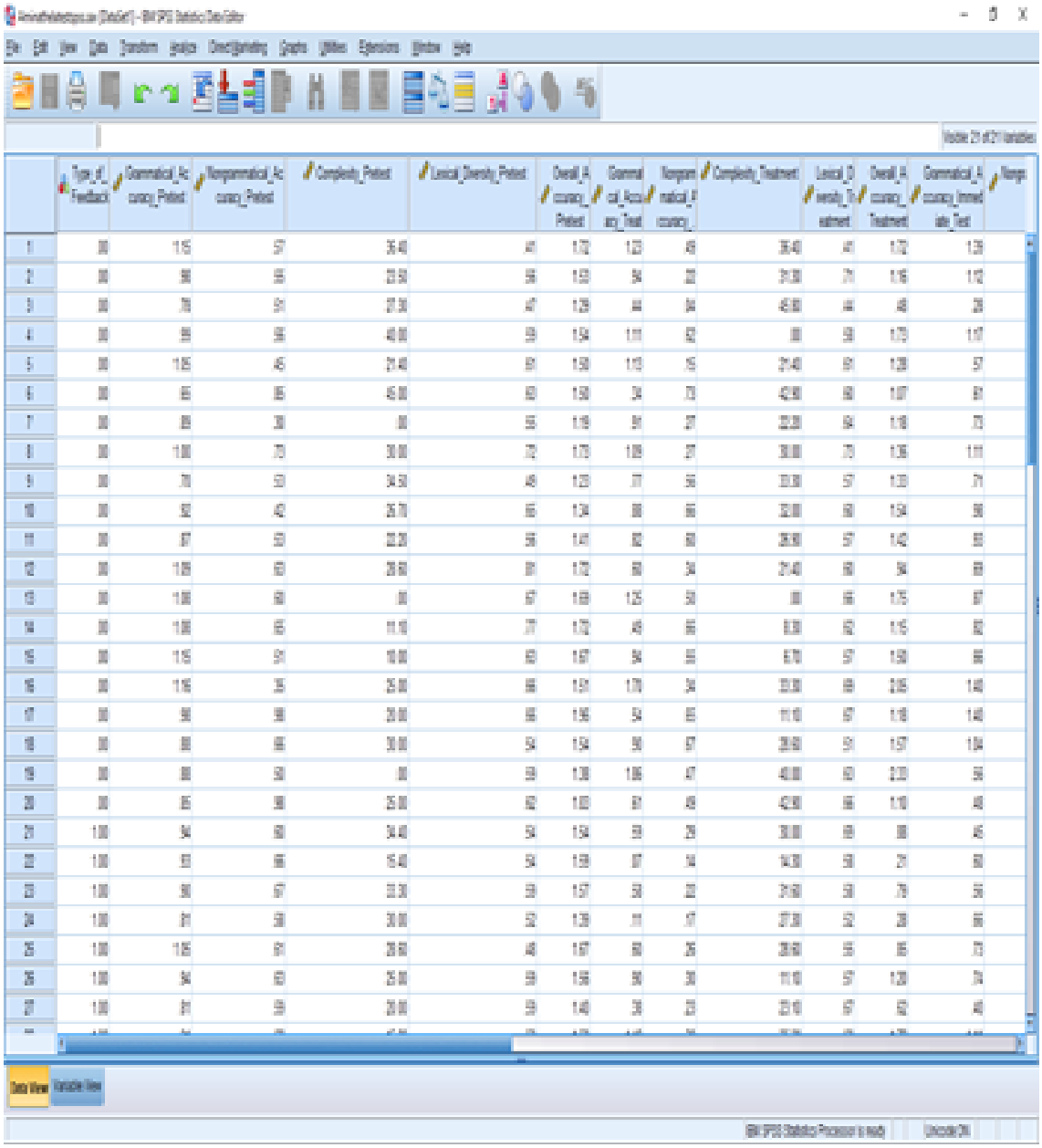
| | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 110 | 0.45 | 1% | 0.36 | 4% | 38.5% | 0.67 | 0.91 | 9% | | 148 | 0.68 | 7% | 0.34 | 3% | 27.8% | 0.66 | 1.01 | 10% | | 2.66 | 7% | 1.60 | 4% | 4.35 | 11% |
| | 133 | 0.60 | 2% | 0.23 | 2% | 23.5% | 0.55 | 1.20 | 12% | | 133 | 0.60 | 6% | 0.45 | 5% | 21.4% | 0.59 | 1.05 | 11% | | 2.20 | 5% | 1.48 | 4% | 4.05 | 10% |
| | 142 | 0.56 | 1% | 0.35 | 4% | 27.8% | 0.57 | 1.13 | 11% | | 122 | 0.74 | 7% | 0.33 | 3% | 25.0% | 0.58 | 1.07 | 11% | | 2.77 | 7% | 1.57 | 4% | 4.55 | 11% |
| | 183 | 0.66 | 2% | 0.11 | 1% | 28.0% | 0.54 | 1.31 | 13% | | 157 | 0.38 | 4% | 0.25 | 3% | 43.5% | 0.59 | 0.64 | 6% | | 1.96 | 5% | 1.11 | 3% | 3.62 | 9% |
| | 137 | 0.73 | 2% | 0.22 | 2% | 25.0% | 0.62 | 1.46 | 15% | | 120 | 0.92 | 9% | 0.17 | 2% | 20.0% | 0.63 | 1.08 | 11% | | 3.30 | 8% | 1.26 | 3% | 5.06 | 13% |
| | 136 | 0.74 | 2% | 0.44 | 4% | 40.0% | 0.66 | 1.47 | 15% | | 91 | 1.10 | 11% | 0.44 | 4% | 6.7% | 0.67 | 1.54 | 15% | | 3.67 | 9% | 1.81 | 5% | 5.77 | 14% |
| | 125 | 0.40 | 1% | 0.40 | 4% | 5.9% | 0.67 | 0.80 | 8% | | 112 | 0.98 | 10% | 0.27 | 3% | 25.0% | 0.65 | 1.25 | 13% | | 2.57 | 6% | 1.49 | 4% | 4.06 | 10% |
| | 108 | 1.11 | 3% | 0.19 | 2% | 33.3% | 0.60 | 2.22 | 22% | | 141 | 1.35 | 13% | 0.50 | 5% | 33.3% | 0.60 | 1.84 | 18% | | 4.79 | 12% | 1.66 | 4% | 7.37 | 18% |
| | 140 | 0.50 | 1% | 0.29 | 3% | 19.2% | 0.56 | 1.00 | 10% | | 181 | 0.72 | 7% | 0.22 | 2% | 27.6% | 0.59 | 0.94 | 9% | | 2.77 | 7% | 1.34 | 3% | 4.33 | 11% |
| | 124 | 0.73 | 2% | 0.24 | 2% | 21.1% | 0.56 | 1.45 | 15% | | 135 | 1.04 | 10% | 0.30 | 3% | 26.3% | 0.65 | 1.33 | 13% | | 3.62 | 9% | 1.39 | 3% | 5.49 | 14% |
| | 145 | 0.34 | 1% | 0.14 | 1% | 50.0% | 0.58 | 0.69 | 7% | | 125 | 0.08 | 1% | 0.24 | 2% | 41.2% | 0.62 | 0.32 | 3% | | 1.41 | 4% | 1.03 | 3% | 2.65 | 7% |
| | 137 | 0.58 | 1% | 0.22 | 2% | 47.1% | 0.60 | 1.17 | 12% | | 174 | 0.86 | 9% | 0.29 | 3% | 25.0% | 0.65 | 1.15 | 11% | | 2.72 | 7% | 1.22 | 3% | 4.31 | 11% |
| | 239 | 0.79 | 2% | 0.13 | 1% | 30.0% | 0.45 | 1.59 | 16% | | 100 | 1.20 | 12% | 0.20 | 2% | 12.5% | 0.59 | 1.40 | 14% | | 3.41 | 9% | 1.07 | 3% | 5.15 | 13% |
| | 72 | 0.56 | 1% | 0.14 | 1% | 36.4% | 0.69 | 1.11 | 11% | | 134 | 0.75 | 7% | 0.30 | 3% | 16.7% | 0.67 | 1.04 | 10% | | 3.10 | 8% | 1.40 | 3% | 4.91 | 12% |
| | 100 | 1.00 | 3% | 0.30 | 3% | 15.0% | 0.67 | 2.00 | 20% | | 97 | 0.41 | 4% | 0.31 | 3% | 35.7% | 0.64 | 0.72 | 7% | | 2.82 | 7% | 1.36 | 3% | 4.87 | 12% |
| | 129 | 0.70 | 2% | 0.39 | 4% | 33.3% | 0.58 | 1.40 | 14% | | 104 | 0.96 | 10% | 0.19 | 2% | 37.5% | 0.68 | 1.15 | 12% | | 3.05 | 8% | 1.33 | 3% | 4.68 | 12% |
| | 122 | 0.57 | 1% | 0.33 | 3% | 30.8% | 0.75 | 1.15 | 11% | | 116 | 0.69 | 7% | 0.34 | 3% | 58.3% | 0.67 | 1.03 | 10% | | 2.39 | 6% | 1.36 | 3% | 4.00 | 10% |
| | 174 | 0.69 | 2% | 0.11 | 1% | 27.3% | 0.51 | 1.38 | 14% | | 154 | 0.26 | 3% | 0.13 | 1% | 30.0% | 0.63 | 0.39 | 4% | | 2.04 | 5% | 0.89 | 2% | 3.50 | 9% |
| | 70 | 0.71 | 2% | 0.43 | 4% | 25.0% | 0.76 | 1.43 | 14% | | 67 | 1.04 | 10% | 0.15 | 1% | 25.0% | 0.70 | 1.19 | 12% | | 3.64 | 9% | 1.42 | 4% | 5.35 | 13% |
| | 114 | 0.35 | 1% | 0.18 | 2% | 22.2% | 0.68 | 0.70 | 7% | | 121 | 0.58 | 6% | 0.41 | 4% | 35.7% | 0.70 | 0.99 | 10% | | 2.83 | 7% | 1.42 | 4% | 4.42 | 11% |
| | | **12.78** | **6%** | **5.18** | **3%** | | | **25.57** | **13%** | | | **15.33** | **8%** | **5.82** | **3%** | | | **21.16** | **11%** | | **57.71** | **7%** | **27.17** | **3%** | **92.48** | **12%** |

# Appendix 9. Indirect group's Error Calculations

| | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 174 | 1.03 | 3% | 0.63 | 6% | 31.3% | 0.53 | 1.67 | 17% | | 114 | 0.88 | 2% | 0.79 | 8% | 20.0% | 0.63 | 1.67 | 17% |
| 3 | 79 | 1.01 | 3% | 0.63 | 6% | 23.1% | 0.61 | 1.65 | 16% | | 80 | 0.63 | 2% | 0.50 | 5% | 30.8% | 0.64 | 1.13 | 11% |
| 4 | 118 | 1.02 | 3% | 0.59 | 6% | 20.0% | 0.81 | 1.61 | 16% | | 123 | 0.24 | 1% | 0.41 | 4% | 27.3% | 0.79 | 0.65 | 7% |
| 5 | 176 | 0.97 | 2% | 0.63 | 6% | 35.3% | 0.60 | 1.59 | 16% | | 113 | 0.27 | 1% | 0.27 | 3% | 33.3% | 0.65 | 0.53 | 5% |
| 6 | 144 | 0.83 | 2% | 0.63 | 6% | 33.3% | 0.58 | 1.46 | 15% | | 142 | 0.70 | 2% | 0.28 | 3% | 33.3% | 0.60 | 0.99 | 10% |
| 7 | 86 | 1.05 | 3% | 0.58 | 6% | 7.7% | 0.69 | 1.63 | 16% | | 109 | 0.55 | 1% | 0.09 | 1% | 25.0% | 0.67 | 0.64 | 6% |
| 8 | 177 | 0.90 | 2% | 0.56 | 6% | 25.0% | 0.60 | 1.47 | 15% | | 142 | 0.85 | 2% | 0.21 | 2% | 21.4% | 0.67 | 1.06 | 11% |
| 9 | 135 | 0.89 | 2% | 0.59 | 6% | 37.5% | 0.59 | 1.48 | 15% | | 79 | 0.38 | 1% | 0.25 | 3% | 40.0% | 0.68 | 0.63 | 6% |
| 10 | 144 | 1.11 | 3% | 0.63 | 6% | 17.6% | 0.68 | 1.74 | 17% | | 95 | 0.74 | 2% | 0.21 | 2% | 28.6% | 0.69 | 0.95 | 9% |
| 11 | 182 | 0.82 | 2% | 0.71 | 7% | 27.3% | 0.55 | 1.54 | 15% | | 181 | 0.28 | 1% | 0.17 | 2% | 35.0% | 0.54 | 0.44 | 4% |
| 12 | 147 | 0.88 | 2% | 0.61 | 6% | 33.3% | 0.55 | 1.50 | 15% | | 143 | 0.63 | 2% | 0.49 | 5% | 41.2% | 0.55 | 1.12 | 11% |
| 13 | 106 | 1.13 | 3% | 0.57 | 6% | 60.0% | 0.66 | 1.70 | 17% | | 91 | 0.44 | 1% | 0.22 | 2% | 50.0% | 0.69 | 0.66 | 7% |
| 14 | 115 | 0.96 | 2% | 0.61 | 6% | 23.1% | 0.62 | 1.57 | 16% | | 105 | 0.57 | 1% | 0.29 | 3% | 36.4% | 0.62 | 0.86 | 9% |
| 15 | 139 | 0.94 | 2% | 0.58 | 6% | 38.5% | 0.67 | 1.51 | 15% | | 124 | 0.40 | 1% | 0.40 | 4% | 33.3% | 0.61 | 0.81 | 8% |
| 16 | 119 | 0.84 | 2% | 0.59 | 6% | 26.7% | 0.62 | 1.43 | 14% | | 102 | 0.88 | 2% | 0.39 | 4% | 41.7% | 0.62 | 1.27 | 13% |
| 17 | 149 | 0.94 | 2% | 0.60 | 6% | 6.3% | 0.62 | 1.54 | 15% | | 193 | 0.57 | 1% | 0.21 | 2% | 10.0% | 0.48 | 0.78 | 8% |
| 18 | 143 | 1.19 | 3% | 0.56 | 6% | 26.3% | 0.59 | 1.75 | 17% | | 136 | 0.74 | 2% | 0.37 | 4% | 26.3% | 0.68 | 1.10 | 11% |
| 19 | 171 | 0.88 | 2% | 0.58 | 6% | 23.8% | 0.59 | 1.46 | 15% | | 108 | 0.65 | 2% | 0.46 | 5% | 9.1% | 0.65 | 1.11 | 11% |
| 20 | 185 | 0.86 | 2% | 0.54 | 5% | 15.0% | 0.51 | 1.41 | 14% | | 172 | 0.52 | 1% | 0.41 | 4% | 20.0% | 0.49 | 0.93 | 9% |
| 21 | 98 | 0.92 | 2% | 0.61 | 6% | 22.2% | 0.60 | 1.53 | 15% | | 72 | 0.56 | 1% | 0.42 | 4% | 22.2% | 0.71 | 0.97 | 10% |
| 22 | | 19.18 | 10% | 12.04 | 6% | | | 31.21 | 16% | | | 11.46 | 6% | 6.83 | 3% | | | 18.29 | 9% |

| | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Total of words | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | Complexity | lexical diversity | over-all acuray | over-all acuray % | | Grammar | Grammar % | Non-Grammatical | Non-Grammatical % | over-all acuray | over-all acuray % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 180 | 0.89 | 2% | 0.39 | 4% | 33.3% | 0.52 | 1.78 | 18% | | 147 | 1.22 | 12% | 0.54 | 5% | 26.3% | 0.56 | 1.77 | 18% | | 4.03 | 10% | 2.35 | 6% | 6.88 | 17% |
| 3 | 97 | 0.52 | 1% | 0.31 | 3% | 28.6% | 0.67 | 1.03 | 10% | | 122 | 1.07 | 11% | 0.25 | 2% | 7.1% | 0.60 | 1.31 | 13% | | 3.22 | 8% | 1.69 | 4% | 5.11 | 13% |
| 4 | 172 | 0.29 | 1% | 0.29 | 3% | 18.2% | 0.57 | 0.58 | 6% | | 156 | 0.19 | 2% | 0.13 | 1% | 20.0% | 0.63 | 0.32 | 3% | | 1.74 | 4% | 1.42 | 4% | 3.16 | 8% |
| 5 | 200 | 0.25 | 1% | 0.45 | 5% | 13.6% | 0.62 | 0.50 | 5% | | 98 | 0.71 | 7% | 0.51 | 5% | 46.2% | 0.66 | 1.22 | 12% | | 2.20 | 5% | 1.85 | 5% | 3.85 | 10% |
| 6 | 94 | 0.74 | 2% | 0.53 | 5% | 23.1% | 0.67 | 1.49 | 15% | | 83 | 0.84 | 8% | 0.12 | 1% | 60.0% | 0.72 | 0.96 | 10% | | 3.13 | 8% | 1.56 | 4% | 4.90 | 12% |
| 7 | 143 | 0.56 | 1% | 0.42 | 4% | 13.6% | 0.64 | 1.12 | 11% | | 166 | 0.72 | 7% | 0.18 | 2% | 38.9% | 0.60 | 0.90 | 9% | | 2.88 | 7% | 1.27 | 3% | 4.29 | 11% |
| 8 | 180 | 0.72 | 2% | 0.44 | 4% | 24.0% | 0.58 | 1.44 | 14% | | 125 | 0.64 | 6% | 0.32 | 3% | 37.5% | 0.67 | 0.96 | 10% | | 3.11 | 8% | 1.54 | 4% | 4.93 | 12% |
| 9 | 137 | 0.36 | 1% | 0.44 | 4% | 31.6% | 0.63 | 0.73 | 7% | | 173 | 0.58 | 6% | 0.29 | 3% | 18.2% | 0.62 | 0.87 | 9% | | 2.21 | 6% | 1.57 | 4% | 3.71 | 9% |
| 10 | 195 | 0.92 | 2% | 0.36 | 4% | 7.7% | 0.52 | 1.85 | 18% | | 115 | 0.52 | 5% | 0.17 | 2% | 26.7% | 0.78 | 0.70 | 7% | | 3.29 | 8% | 1.37 | 3% | 5.23 | 13% |
| 11 | 208 | 0.34 | 1% | 0.38 | 4% | 33.3% | 0.51 | 0.67 | 7% | | 159 | 0.13 | 1% | 0.13 | 1% | 22.2% | 0.69 | 0.25 | 3% | | 1.56 | 4% | 1.39 | 3% | 2.91 | 7% |
| 12 | 167 | 0.66 | 2% | 0.42 | 4% | 32.0% | 0.52 | 1.32 | 13% | | 143 | 0.42 | 4% | 0.07 | 1% | 47.4% | 0.61 | 0.49 | 5% | | 2.59 | 6% | 1.59 | 4% | 4.42 | 11% |
| 13 | 139 | 0.50 | 1% | 0.36 | 4% | 52.9% | 0.58 | 1.01 | 10% | | 89 | 0.79 | 8% | 0.22 | 2% | 54.5% | 0.63 | 1.01 | 10% | | 2.86 | 7% | 1.37 | 3% | 4.38 | 11% |
| 14 | 144 | 0.56 | 1% | 0.42 | 4% | 27.8% | 0.60 | 1.11 | 11% | | 257 | 0.66 | 7% | 0.35 | 4% | 5.7% | 0.59 | 1.01 | 10% | | 2.74 | 7% | 1.66 | 4% | 4.55 | 11% |
| 15 | 220 | 0.41 | 1% | 0.23 | 2% | 12.0% | 0.54 | 0.82 | 8% | | 207 | 0.43 | 4% | 0.05 | 0% | 23.1% | 0.60 | 0.48 | 5% | | 2.18 | 5% | 1.25 | 3% | 3.62 | 9% |
| 16 | 166 | 0.96 | 2% | 0.36 | 4% | 47.4% | 0.54 | 1.93 | 19% | | 145 | 0.34 | 3% | 0.21 | 2% | 44.4% | 0.50 | 0.55 | 6% | | 3.03 | 8% | 1.55 | 4% | 5.18 | 13% |
| 17 | 230 | 0.78 | 2% | 0.26 | 3% | 42.3% | 0.48 | 1.57 | 16% | | 192 | 0.31 | 3% | 0.31 | 3% | 23.1% | 0.62 | 0.63 | 6% | | 2.60 | 7% | 1.38 | 3% | 4.51 | 11% |
| 18 | 259 | 0.81 | 2% | 0.23 | 2% | 41.7% | 0.51 | 1.62 | 16% | | 166 | 1.20 | 12% | 0.42 | 4% | 34.8% | 0.62 | 1.63 | 16% | | 3.94 | 10% | 1.58 | 4% | 6.10 | 15% |
| 19 | 220 | 0.64 | 2% | 0.23 | 2% | 27.6% | 0.55 | 1.27 | 13% | | 133 | 0.60 | 6% | 0.30 | 3% | 50.0% | 0.64 | 0.90 | 9% | | 2.76 | 7% | 1.58 | 4% | 4.75 | 12% |
| 20 | 194 | 0.52 | 1% | 0.31 | 3% | 33.3% | 0.52 | 1.03 | 10% | | 114 | 0.70 | 7% | 0.26 | 3% | 38.5% | 0.55 | 0.96 | 10% | | 2.61 | 7% | 1.52 | 4% | 4.33 | 11% |
| 21 | 166 | 0.42 | 1% | 0.36 | 4% | 29.2% | 0.55 | 0.84 | 8% | | 202 | 0.89 | 9% | 0.35 | 3% | 28.6% | 0.59 | 1.24 | 12% | | 2.79 | 7% | 1.74 | 4% | 4.58 | 11% |
| 22 | | 11.85 | 6% | 7.19 | 4% | | | 23.71 | 12% | | | 12.99 | 6% | 5.18 | 3% | | | 18.17 | 9% | | 55.48 | 7% | 31.24 | 4% | 91.38 | 11% |

## Appendix 10. Students' Data in SPSS



| | Type_of_Feedback | Grammatical_Accuracy_Pretest | Nongrammatical_Accuracy_Pretest | Complexity_Pretest | Lexical_Diversity_Pretest | Detail_Accuracy_Pretest | Grammatical_Accuracy_Test | Nongrammatical_Accuracy_ | Complexity_Treatment | Lexical_Diversity_Treatment | Detail_Accuracy_Treatment | Grammatical_Accuracy_Immediate_Test | Nongr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 115 | 57 | 36.40 | 41 | 1.72 | 123 | 49 | 36.40 | 41 | 1.72 | 139 | |
| 2 | 30 | 98 | 55 | 23.30 | 56 | 1.53 | 94 | 32 | 31.30 | 71 | 1.16 | 1.12 | |
| 3 | 30 | 78 | 51 | 27.30 | 47 | 1.39 | 44 | 34 | 45.60 | 44 | 48 | 28 | |
| 4 | 30 | 95 | 55 | 40.00 | 59 | 1.54 | 1.11 | 52 | 00 | 53 | 1.75 | 1.07 | |
| 5 | 30 | 115 | 45 | 21.40 | 51 | 1.50 | 1.15 | 35 | 21.40 | 51 | 1.38 | 57 | |
| 6 | 30 | 65 | 55 | 45.00 | 50 | 1.50 | 34 | 73 | 42.00 | 50 | 1.07 | 51 | |
| 7 | 30 | 85 | 30 | 00 | 55 | 1.19 | 51 | 27 | 22.30 | 54 | 1.18 | 73 | |
| 8 | 30 | 1.00 | 75 | 30.00 | 72 | 1.75 | 1.09 | 27 | 30.00 | 75 | 1.36 | 1.11 | |
| 9 | 30 | 70 | 53 | 34.30 | 48 | 1.33 | 77 | 36 | 33.30 | 57 | 1.33 | 71 | |
| 10 | 30 | 52 | 42 | 35.70 | 65 | 1.34 | 88 | 66 | 32.00 | 60 | 1.54 | 58 | |
| 11 | 30 | 57 | 53 | 22.30 | 56 | 1.41 | 82 | 60 | 35.00 | 57 | 1.42 | 55 | |
| 12 | 30 | 105 | 63 | 28.00 | 51 | 1.72 | 60 | 34 | 21.40 | 60 | 56 | 69 | |
| 13 | 30 | 1.00 | 60 | 00 | 57 | 1.69 | 1.25 | 30 | 00 | 66 | 1.75 | 57 | |
| 14 | 30 | 1.00 | 65 | 11.10 | 77 | 1.72 | 49 | 66 | 8.30 | 62 | 1.15 | 52 | |
| 15 | 30 | 115 | 51 | 10.00 | 60 | 1.67 | 54 | 55 | 6.70 | 57 | 1.50 | 66 | |
| 16 | 30 | 116 | 35 | 23.00 | 66 | 1.51 | 1.70 | 34 | 23.30 | 69 | 2.05 | 1.40 | |
| 17 | 30 | 90 | 90 | 20.00 | 65 | 1.55 | 54 | 65 | 11.10 | 57 | 1.18 | 1.40 | |
| 18 | 30 | 80 | 65 | 30.00 | 54 | 1.54 | 56 | 57 | 28.00 | 51 | 1.57 | 1.04 | |
| 19 | 30 | 80 | 30 | 00 | 59 | 1.38 | 1.06 | 47 | 40.00 | 60 | 2.30 | 36 | |
| 20 | 30 | 65 | 90 | 25.00 | 62 | 1.00 | 91 | 49 | 42.00 | 66 | 1.10 | 48 | |
| 21 | 1.00 | 54 | 60 | 34.40 | 54 | 1.54 | 59 | 25 | 30.00 | 69 | 38 | 45 | |
| 22 | 1.00 | 55 | 66 | 15.40 | 54 | 1.59 | 87 | 34 | 14.30 | 58 | 21 | 60 | |
| 23 | 1.00 | 50 | 67 | 33.30 | 59 | 1.57 | 50 | 22 | 21.00 | 59 | 79 | 56 | |
| 24 | 1.00 | 71 | 50 | 30.00 | 52 | 1.39 | 71 | 37 | 27.30 | 52 | 28 | 66 | |
| 25 | 1.00 | 105 | 51 | 20.00 | 48 | 1.67 | 60 | 26 | 20.00 | 55 | 65 | 73 | |
| 26 | 1.00 | 54 | 60 | 25.00 | 59 | 1.56 | 56 | 30 | 11.10 | 57 | 1.20 | 74 | |
| 27 | 1.00 | 71 | 59 | 20.00 | 59 | 1.40 | 38 | 23 | 23.10 | 57 | 52 | 46 | |

## Appendix 11. Results of Normality Test

| Accuracy over time | Type of feedback | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|---|
| | | Statistic | Df | Sig. | Statistic | Df | Sig. |
| Grammatical Accuracy in Pre-Test | Control | .114 | 20 | .200* | .953 | 20 | .414 |
| | Direct | .137 | 20 | .200* | .960 | 20 | .553 |
| | Indirect | .134 | 20 | .200* | .931 | 20 | .161 |
| Non-grammatical Accuracy in Pre-Test | Control | .156 | 20 | .200* | .922 | 20 | .107 |
| | Direct | .127 | 20 | .200* | .956 | 20 | .464 |
| | Indirect | .147 | 20 | .200* | .933 | 20 | .179 |
| Complexity in Pre-Test | Control | .163 | 20 | .171 | .933 | 20 | .177 |
| | Direct | .094 | 20 | .200* | .964 | 20 | .624 |
| | Indirect | .159 | 20 | .199 | .930 | 20 | .154 |
| Lexical Diversity in Pre-Test | Control | .115 | 20 | .200* | .984 | 20 | .976 |
| | Direct | .201 | 20 | .033 | .938 | 20 | .222 |
| | Indirect | .208 | 20 | .023 | .907 | 20 | .056 |
| Overall Accuracy in Pre-Test | Control | .121 | 20 | .200* | .971 | 20 | .773 |
| | Direct | .110 | 20 | .200* | .962 | 20 | .593 |
| | Indirect | .132 | 20 | .200* | .941 | 20 | .247 |
| Grammatical Accuracy in Revision Stage | Control | .137 | 20 | .200* | .942 | 20 | .262 |
| | Direct | .155 | 20 | .200* | .917 | 20 | .085 |
| | Indirect | .110 | 20 | .200* | .965 | 20 | .645 |
| Non-grammatical Accuracy in Revision Stage | Control | .162 | 20 | .177 | .931 | 20 | .159 |
| | Direct | .122 | 20 | .200* | .920 | 20 | .098 |
| | Indirect | .114 | 20 | .200* | .931 | 20 | .165 |
| Complexity in Revision Stage | Control | .133 | 20 | .200* | .931 | 20 | .164 |
| | Direct | .124 | 20 | .200* | .938 | 20 | .219 |
| | Indirect | .092 | 20 | .200* | .980 | 20 | .934 |
| Lexical Diversity in Revision Stage | Control | .190 | 20 | .057 | .935 | 20 | .190 |
| | Direct | .187 | 20 | .065 | .935 | 20 | .196 |
| | Indirect | .158 | 20 | .200* | .929 | 20 | .145 |
| Overall Accuracy in Revision Stage | Control | .115 | 20 | .200* | .970 | 20 | .755 |
| | Direct | .156 | 20 | .200* | .931 | 20 | .159 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Indirect | .110 | 20 | .200* | .964 | 20 | .635 |
| Grammatical Accuracy in Immediate Post-Test | Control | .125 | 20 | .200* | .960 | 20 | .549 |
| | Direct | .151 | 20 | .200* | .945 | 20 | .294 |
| | Indirect | .110 | 20 | .200* | .965 | 20 | .645 |
| Non-grammatical Accuracy in Immediate Post-Test | Control | .141 | 20 | .200* | .959 | 20 | .515 |
| | Direct | .122 | 20 | .200* | .933 | 20 | .178 |
| | Indirect | .152 | 20 | .200* | .950 | 20 | .364 |
| Complexity in Immediate Post-Test | Control | .174 | 20 | .112 | .908 | 20 | .059 |
| | Direct | .094 | 20 | .200* | .985 | 20 | .981 |
| | Indirect | .109 | 20 | .200* | .977 | 20 | .885 |
| Lexical Diversity in Immediate Post-Test | Control | .199 | 20 | .037 | .919 | 20 | .095 |
| | Direct | .121 | 20 | .200* | .970 | 20 | .763 |
| | Indirect | .162 | 20 | .176 | .928 | 20 | .141 |
| Overall Accuracy in Immediate Post-Test | Control | .128 | 20 | .200* | .961 | 20 | .565 |
| | Direct | .161 | 20 | .187 | .944 | 20 | .280 |
| | Indirect | .110 | 20 | .200* | .964 | 20 | .635 |
| Grammatical Accuracy in Delayed Post-Test | Control | .108 | 20 | .200* | .951 | 20 | .390 |
| | Direct | .094 | 20 | .200* | .983 | 20 | .970 |
| | Indirect | .106 | 20 | .200* | .971 | 20 | .781 |
| Non-grammatical Accuracy in Delayed Post-Test | Control | .138 | 20 | .200* | .945 | 20 | .295 |
| | Direct | .119 | 20 | .200* | .968 | 20 | .716 |
| | Indirect | .099 | 20 | .200* | .965 | 20 | .654 |
| Complexity in Delayed Post-Test | Control | .119 | 20 | .200* | .939 | 20 | .227 |
| | Direct | .135 | 20 | .200* | .967 | 20 | .685 |
| | Indirect | .108 | 20 | .200* | .974 | 20 | .833 |
| Lexical Diversity in Delayed Post-Test | Control | .121 | 20 | .200* | .969 | 20 | .727 |
| | Direct | .145 | 20 | .200* | .931 | 20 | .158 |
| | Indirect | .161 | 20 | .187 | .953 | 20 | .414 |
| Overall Accuracy in Delayed Post-Test | Control | .150 | 20 | .200* | .947 | 20 | .323 |
| | Direct | .176 | 20 | .106 | .953 | 20 | .407 |
| | Indirect | .150 | 20 | .200* | .964 | 20 | .625 |

## Appendix 12. Writing Tasks

Task 1:

Could you tell me about your future dreams in your next letter?

This is a part of your friend's letter asking about your future dreams.

Write a paragraph to your friend to tell him/her about your future dreams. In your paragraph you should write about:

- What are your future dreams?
- How would you achieve them?
- Why you would like to achieve them?

Write paragraph of 200 -250 words.

Task 2:

Every person in this life passes through some points that make it difficult to choose the best decision!

Write a paragraph about the difficult decision you have ever take.

- What was your decision?
- How do you feel after making it?
- Have you asked advice to help you? Who did you ask?

Write paragraph of 200 -250 words.

Task 3:

I love watching movies in my free time. My favourite ones are action movies. What about you? Could you tell me about your favourite movie/ book?

This is a part of your friend's letter asking about your favourite movie or book.

Write a paragraph to your friend to tell him/her about your movie/ book. In your paragraph you should write about:

- What is the name of the movie/book dreams?
- What is the movie/book about?
- What have you learnt from the movie/book?

## Appendix 13. Interview Guide (English Version)

1. You have had English writing experience before, how were your writing classes in secondary school? (Types of writing, regular classes)
2. What do you remember about English writing instruction in secondary school?
3. Did your teachers give you any explanations about the task before writing?
4. What was the way that your teachers give you feedback about your writing?
5. When your teacher commented on your work, did you read your teachers' comments?
6. Did you understand the comments?
7. Did you try to ask or discuss your teachers about their comments?
8. Can you tell me about the grammar lessons in your secondary school study?
9. What about the grammar lessons now at the university study?
10. Do you think it is important to have grammar as a subject?
11. Now you are at the university level, what do you think of the writing course? Do you think it is different from your writing lessons at the secondary school?
12. Does your teacher ask you to write many drafts of the same topic?
13. What is the way that your teachers give you feedback about your writing?
14. Do you understand the teacher's comments, or do you need to discuss them with her?
    - Do you consider your teacher's comments in your new writing? How?
    - Do you think your teacher's comments encourage you to improve your writing? How?
15. How do you feel about your writing abilities in English? What are your strengths? What are your weaknesses? (Are these your own opinions, your teachers have told you, or both?
16. How do you think you would improve your weaknesses?

17. What do you think of the topics of the experiment tasks (your future dream, difficult decision and your favourite film or book)?
18. Do you think the pre-lesson of each topic was enough to write about it?
19. What do you think of timing writing?
20. What do you think of the revision stage as a part of your writing process?
21. Let's look at your writings that you wrote during the experiment, the first task was corrected by your teacher to give feedback about your language errors, can you tell me what did you do when your teacher asked you to revise your work?
22. Do you think the time for revision was enough?
23. What did you do with the feedback when you rewrite the same text?
24. Your teacher provided you with the direct/indirect/ comments correction to the errors do you think this is an effective way to help you with your writing? Why? Why not?
25. Did you find feedback easy to understand? If yes, how did you understand them? If not?

26. What were the difficulties you find to understand your teacher's feedback?
27. Let's go through several examples of the errors on your first task paper, can you tell me why you made these errors? Is it because:
    - You thought they were the correct forms.
    - You did not know the right form.
    - You were in a hurry and there is no time for revision and proofreading.
28. When you rewrite the text how did you deal with your teacher's corrections, were you thinking about:
    - Just copying them because they were already there?
    - Asking yourself why you did this error?
    - Asking your teacher about them?
    - Analysing them carefully to avoid them in future?
    - Ignoring them?

29. You copied most of the errors which were corrected by your teacher,
    - Did you want to ask her about some corrections? Why?

30. Would you prefer your teacher to communicate with you to discuss the errors? Why?
31. I have noticed that there were some errors that your teacher ignored them. Look at your writing, can you find some? Can you tell me what is wrong with them?
32. If you have chance to correct them now, how are going to correct the errors?
33. After having feedback on your errors, did that make you to be more careful in your future writing?
    - Can you tell me how you became more careful about your writing?
34. Let's move to task two and three, look at the error chart of each task, would your writing be improved if your teacher frequently gave you feedback? Why and How? Why not?
35. Would you recommend using feedback practice in writing classes? Why? Why not?
36. Would you prefer your teacher to mark the errors or to correct them? Why?

37. Would you like your teacher to correct all your errors or select the most annoying ones?

38. Would you prefer your teacher to correct your grammatical errors, content or organisation?

## Appendix 14. Interview Guide (Arabic Version)

1.هل لديك تجربة الكتابة باللغة الإنجليزية؟ كيف كانت دروس الكتابة في المرحلة الثانوية؟

2. ماذا تتذكر عن طريقة تدريس الكتابة في المرحلة الثانوية؟

3. هل كان الأستاذ يعطي توضيحات او شرح قبل البدء بالكتابة؟

4. كيف كانت طريقة تصحيح المعلم وإعطاءه التعليقات عن الكتابة؟

5. عندما يزودك الأستاذ بتعليقات هل كنت تقرا تلك التصحيحات والتعليقات؟ نعم؟ لا؟ ولما لا؟

6. هل كنت تفهم تلك التصحيحات او التعليقات؟

7. هل حاولت ان تناقش مع استاذك هذه التصحيحات او التعليقات؟

8. هل بإمكانك ان تحدثني عن دروس القواعد في المرحلة الثانوية؟

9.ماذا عن مادة القواعد التي تدرسونها الان في المرحلة الجامعية؟

10. هل تعتقد ان دراسة القواعد مادة دراسية مهمة؟

11. انت الان في مرحلة الدراسة الجامعية، كيف ترى مادة الكتابة؟ هل تعتقد انها تختلف عن الكتابة في المرحلة الثانوية؟

12.هل يطلب منكم الأستاذ الكتابة لمرة واحدة او عدة مرات؟

13. كيف يصحح الأستاذ كتاباتكم؟

14.هل تصحيحات او تعليقات الأستاذ مفهومة؟ هل تراجع تعليقات الأستاذ عند الشروع في كتابة موضوع جديد؟ وهل تعتقد تصحيحات او تعليقات الأستاذ تشجعك عل تحسين كتابتك؟ وكيف؟

15.ماهو رأيك في مهارتك الكتابية في اللغة الإنجليزية؟ ماهي نقاط القوة عنك؟ وماهي نقاط الضعف؟ هل هذا تقييمك لنفسك او تقييم الأستاذ؟

16.كيف بإمكانك تحسين نقاط ضعفك؟

17.ما رأيك عي المواضيع التي كتبتها خلال التجربة؟ (حلم المستقبل، موقف صعب، كتابك او فيلمك المفضل)

18.هل تعتقد الشرح الذي سبق كتابة كل موضوع كافي لفهم الموضوع؟

19. ما رأيك في الكتابة خلال وقت محدد؟

20.ما رأيك في مرحلة المراجعة كجزء من عملية الكتابة؟

21.دعنا ننظر الي كتاباتك الت كتبتها خلال التجربة، استاذك زودك بتصحيح اخطاءك، هل تخبرني ماذا فعلت عندما طلب منك مراجعة ما كتبت؟

22. هل الوقت المحدد للمراجعة كان كافي لذلك؟

23. ماذا فعلت بتصحيحات استاذك عندما طلب منك إعادة كتابة نفس الموضوع؟

24. زودك استذك بتصحيحات (مباشرة، غير مباشرة، تعليق عام) هل تعتقد ان هذه الطريقة مفيدة لتحسين كتابتك؟ لماذا؟ ولما لا؟

25. هل تصحيحات او تعليقات الأستاذ سهلة الفهم؟ اذ لا؟

26. ماهي الصعوبات التي واجهتك والتي جعلت منك غير قادر على فهم تصحيحات او تعليقات الأستاذ؟

27. دعنا نراجع بعض الأمثلة عن الأخطاء التي ارتكبتها في كتابتك الأولى، هل بإمكانك ان تخبرني هل هذه الأخطاء كانت نتيجة:

إنك اعتقدت انها الشكل الصحيح

لأنك لا تعلم الشكل الصحيح

كنت في عجلة ولم يكن لك الوقت الكافي للمراجعة

28. عندما اعدت كتابة نفس الموضوع هل كان تعاملك مع تصحيحات المعلم:

نقلتهم كما كتبهم الأستاذ

سالت نفسك لماذا تعتبر ارتكبت هذه الأخطاء

حللت هذه الأخطاء بعناية حتى لا تكررهم من جديد عندما تكتب في المستقبل

تجاهلتهم

29. لقد قمت بنسخ كل تصحيحات استاذك، هل اردت ان تسال استاذك عن هذه التصحيحات؟ ولماذا؟

30.هل تفضل ان تتحدث مع استاذك بخصوص اخطاءك؟ ولماذا؟

31. هنالك بعض الأخطاء تجاهلتها. انظر الي كتابتك هل بإمكانك ايجادهم؟ هل بإمكانك ان تخبرني ما هو الخطأ؟

32.لو عنك الفرصة لتصحيحهم الان كيف ستصححهم؟

33. بعد تزويدك بالتصحيحات هل أصبحت أكثر حذرا؟ وكيف؟

34. هل تعتقد ان كتابتك ستتحسن لو زودك استاذك بالتصحيحات بشكل دوري؟

35.هل ستنصح باستخدام التصحيحات في دروس الكتابة؟ ولماذا؟

36.هل تفضل التصحيحات المباسرة او الغير مباشرة؟ ولماذا؟

37. هل تفضل استاذك ان يزودك بتصحيحات لكل الأخطاء او فقط أخطاء معينة؟ ولماذا؟

38. هل تفضل استاذك ان يزودك بتصحيحات على الأخطاء اللغوية او على المحتوي والتنظيم؟

## Appendix 15. Participant Information Sheet (English Version)

**Study Title:** The effectiveness of comprehensive direct and indirect corrective feedback on learners' accuracy, structural complexity and lexical diversity

**Researcher:** Amina Elbadri Dabboub Student No. N0455494

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

**What is the research about?**

This study is carried out as part of an applied linguistics PhD at Nottingham Trent University. It concerns the use of written corrective feedback in EFL context. It aims to investigate the effectiveness of comprehensive direct and indirect corrective feedback on learners' accuracy, structural complexity and lexical diversity. In addition, it aims to explore learners' strategies when processing corrective feedback and their preferences and attitudes towards the two different types of feedback -direct and indirect. Moreover, it will investigate the difficulties faced the learners when dealing with corrective feedback.

**Why have I been Chosen?**

Your participation in the study will help me to identify which type of corrective feedback can be more beneficial in developing your accuracy in writing. Furthermore, you will help to get in depth insights into the strategies you use when you deal with your teachers' corrective feedback as well as to reveal the difficulties that you encounter when processing written corrective feedback.

**What will happen to me if I take part?**

If you decide to participate, your co-operation will be highly appreciated in taking part in the study. You will be asked to participate in an experiment that consists of four stages: at first stage, you will be asked to write about a topic from your syllabus and be selected by your teacher. Your writing work will be collected and be corrected by your teacher. In the second stage, you will receive your writing work with your teacher's correction and you will be asked to revise it and rewrite the same task. A copy of your work will be sent to the researcher to use it in the study. In stage three and four, your teacher will make a copy of your work and will be sent to the researcher as well. You also might be invited to be interviewed about your experience with the feedback you will receive from your

teacher. Remember your work during the experiment will not affect your passing or fail scores. You are still free to discontinue participation at any time without penalty.

**Are there any benefits in my participation?**

Yes, there are benefits that your participation would help me to investigate the main issue of this study and this may help the EFL teachers to improve their written corrective feedback, which would affect positively your accuracy in writing. You will also experience new things like taking part in interviews which you are unfamiliar with.

**Are there any risks involved?**

There are no risks involves.

**Will my participation be confidential?**

Yes, any information that is obtained in connection with this study will be kept strictly confidential and will be stored and later destroyed. In addition, your information will not be used or made available for any purpose other than for this study.

**What happen if I change my mind?**

Participants in this study is completely voluntary. Therefore, you could stop participation at any time and there will not be any negative consequences.

**Where can I get more information?**

If you would like further information about the research, please contact me at

d_amina1976@yahoo.com

## Appendix 16. Participation Information Sheet (Arabic Version)

### ورقة معلومات عن الدراسة

**عنوان الدراسة:** تأثير تصحيح المعلم باستخدام التصحيح المباشر والغير مباشر على الدقة اللغوية للطالب عند الكتابة باللغة الإنجليزية

*الرجاء قراءة هذه المعلومات عن الدراسة بعناية قبل المشاركة بهذه الدراسة وتوقيع النموذج المعد لموا فقتك بالاشتراك في الدراسة*

**عن مآذا تتحدث الدراسة؟**

هذه الدراسة هي جزء من متطلبات الحصول على الدكتوراه في علم اللغة التطبيقي من جامعة نوتنغهام ترنت ببريطانيا.

تهتم هذه الدراسة بنوعين من تصحيح المعلم (المباشر والغير مباشر) ومدى تأثيرها علي دقة اللغة والتركيبات المعقدة وكذلك التنوع اللغوي اثناء الكتابة باللغة الإنجليزية.

هذه الدراسة ايضاً تبحث عن كيفية استخدام الطلبة لهذه التصحيحات وكذلك الاستراتيجيات التي يستخدمها الطلبة اثناء تعاملهم مع هذه التصحيحات.

كما تبحث هذه أيضا آراء الطلبة تجاه هاذين النوعين من التصحيحات وكذلك الصعوبات التي تواجه الطلبة في التعامل مع تصحيحات المعلم.

**لماذا أخترت لهذه الدراسة؟**

مشاركتك بهذه الدراسة ستوضح أي من النوعين السابق ذكرهم من تصحيحات المعلم التي سيكون لها تأثير أكبر في تطوير دقة الطالب في الكتابة باللغة الإنجليزية.

بالإضافة مشاركتك ستوضح كيفية تعاملك مع تصحيحات المعلم وتبين الاستراتيجيات التي ستعتمدها عند التعامل مه مثل هذه التصحيحات كما أيضا ستوضح موقفك حيال هذه التصحيحات. بالإضافة ستبين المشاكل التي تواجهها اثناء تطبيق هذا النوع من التصحيحات.

**ما هو المطلوب عند مشاركتي في هذه الدراسة؟**

إذا قررت المشاركة في هذه الدراسة سيطلب منك المشاركة في تجربة والتي تتكون من أربع مراحل:

***المرحلة الأولى:*** سيطلب منك الكتابة في درسك المعتاد وستصحح الورقة من قبل معلمك.

***المرحلة الثانية:*** ترجع لك الورقة وبها نوع معين من تصحيحات المعلم وسيطلب منك مراجعة الذي كتبته وإعادة كتابة نفس الموضوع.

***المرحلة الثالثة والربعة*** سيطلب منك الكتابة في مواضيع التي سيدرسها لك المعلم وتؤخذ نسخة من كل كتاباتك من قبل الباحث لتحليلها.

قد يتم اختيارك للمشاركة في عمل مقابلة مع الباحث بخصوص كتابتك.

تذكر ان مشاركتك لن تؤثر على نجاحك او رسوبك في المادة.

كما ان لك مطلق الحرية بالانسحاب من هذه الدراسة في أي وقت ومشاركتك سيكون لها فائق التقدير ولاحترام.

**ماهي الفائدة التي ستجنيها من المشاركة في هذه الدراسة؟**

مشاركتك ستساعد الأساتذة في التطوير من طرق التصحيح التي يزودون بها الطلبة عن كتاباتهم والتي ستؤثر إيجابا على تحسين دقة كتابتك وسوف تخوض تجربة ممكن ان تكون جديده وذلك بمشاركتك في المقابلة الشخصية مع الباحث.

**هل سأتعرض لأي مخاطر عند مشاركتي في هذه الدراسة؟**

لا يوجد أي خطر عند مشاركتك.

**ما مدي سرية المعلومات التي سأدلي بها؟**

كل المعلومات التي ستدلي بها ستحاط بقدار عالي من السرية حيث انها ستحفظ جيدا وسيتخلص منها بطريقة مناسبة بعد الانتهاء من الدراسة.

**ماذا سيحدث إذا اردت الانسحاب من المشاركة في الدراسة؟**

مشاركتك في هذه الدراسة هي عمل تطوعي ولذلك إذا قررت الانسحاب فلن تكون هناك أي عواقب.

**كيف يمكنني الحصول على معلومات أكثر؟**

للحصول على معلومات إضافية عن الدراسة بإمكانك الاتصال بالباحثة: امينة البدري دبوب

البريد الإلكتروني:

d_amina1976@yahoo.com

## Appendix 17. Consent Form (English Version)

**Study title:** The effectiveness of comprehensive direct and indirect written corrective feedback on learners' accuracy, structural complexity and lexical diversity

**Researcher name:** Amina Elbadri Dabboub

Student number: N0455494

Please initial the box(s) if you agree with the statement(s):

I have read and understood the information sheet and have had the opportunity to ask questions about the study. ☐

I agree to take part in this study and agree for my data to be used for the purpose of this study. ☐

I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected. ☐

Data Protection

I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. All files containing any personal data will be made anonymous.

Name of participant: ……

Signature of participant: ……..

Date: ……

## Appendix 18. Consent Form (Arabic Version)

**عنوان الدراسة:** تأثير تصحيح المعلم باستخدام التصحيح المباشر والغير مباشر على الدقة اللغوية للطالب عند الكتابة باللغة الإنجليزية

**اسم الباحثة:** امينة البدري دبوب

**رقم الطالب:**

N045594

***ضع علامة أمام الفقرة التي تتوافق معك***

☐ قرأت وفهمت المعلومات الي زوِّدت بها عن الدراسة، كما أُتيحت لي الفرصة للسؤال لتوضيح المبهم.

☐ أوافق على الاشتراك في هذه الدراسة على ان تستعمل المعلومات التي سأدلي بها لغرض هذه الدراسة فقط.

☐ أنا مدرك بأن مشاركتي في هذه الدراسة هو عمل تطوعي وبإمكاني الانسحاب في أي وقت وبدون أن يلحقني أي أذى.

**حماية المعلومات والبيانات**

أنا مدرك بأن المعلومات التي سأدلي بها خلال مشاركتي في هذه الدراسة ستكون محمية حيث ستخزن في جهاز حاسوب محمي بكلمة سر وأن تلك المعلومات ستستعمل لغرض الدراسة فقط. بالإضافة إلى ذلك كل الملفات التو تحتوي على معلوماتي الشخصية ستكون محفوظة بأسماء مستعارة.

اسم المشترك: .....

توقيع المشترك: .....

التاريخ: .....