CHAPTER ONE

INTRODUCTION

1.0 Overview

Providing feedback to learners' written work has always been an arduous task and it can be an even more challenging endeavour to realize that the feedback given does not have much effect on the learners' language development. This is a common enough situation especially in second language writing and on the teachers' part, the energy and time spent on trying to provide feedback to the students, in particularly on grammar errors, do not seem to benefit the learners and this predicament is shared by some of the educators and researchers in this field (Ferris, 1999; 2004; Lee, 2009; 2013). A very tempting notion put forward by Truscott (1996) in his case against grammar correction can be a great welcome in approaching this whole issue. Based on his extensively researched argument, he believes that teachers should abandon grammar correction because not only that it does not help learners, but it may also be detrimental on the learners' second language acquisition. However appealing Truscott's view may be, other researchers profess that there should be more room for corrective feedback to effectively function in helping learners' language development (Bitchener & Ferris, 2012; Chandler, 2003; Ferris, 2004; 2010; Van Beuningen, De Jong & Kuiken, 2012; among others). Ferris (2004) believes that finding ways to identifying effective feedback is of importance in the effort to keep on searching for the most appropriate feedback types. This inspires the quest for the attempt to prove that feedback does have positive influence on linguistic accuracy and more importantly to identify what type of feedback is most effective for classroom use.

The research reported in this dissertation is carried out to investigate the efficacy of two feedback types in enhancing the accurate use of subject-verb agreement, prepositions and articles in written work. Qualitative interview is employed to

determine aspects of these corrective feedback types in influencing uptake and retention of the accurate use of the targeted linguistic forms by second language learners. Fundamentally, this study is motivated by the needs of the learners of effective feedback that can actually help them improve linguistic accuracy regardless of the pedagogical approaches, be they communicative or problem-based, any higher institutions decide to apply in the process of teaching and learning a second language. What lies firmly within is the fact that for any written tasks learners complete, feedback is still the core of the process (Ferris, 2004; Hyland & Hyland, 2006c). Although the role of feedback is incessantly debated these last decades, scholars in this field have pointed out that there is still room for further studies and the types of feedback as well as the types of learners are the factors that influence effectiveness of improving language accuracy in written work (Bitchener & Ferris, 2012; Chandler, 2003; Ferris, 2004; 2010; Van Beuningen, De Jong & Kuiken, 2012; among others).

1.1 Background of the Study

The attempt to improve students' language accuracy in writing tasks relates to the effort of teachers in providing corrective feedback (CF) for the written work. It is always discouraging to find out that certain efforts made do not really make much difference on improving students' performance regardless of the numerous feedbacks provided for each writing piece (Ferris, 1999; Lee, 2009; Truscott, 1996). Researchers like Truscott (1996, 2007) has even put forward the notion that not just corrective feedback is an ineffective way to help learners improve their language accuracy, but it can also pose harmful effects on the learning process. To date, many researchers have tried to negate his claim by providing empirical evidence on the benefits of corrective feedback on the learners' language development. Nevertheless, studies carried out vary in results as to whether the claims can be contrary to or in agreement with that of Truscott's. (Bitchener & Knoch, 2008a; 2009b; 2010; Bitchener, Young & Cameron, 2005; Ellis,

Sheen, Murakami & Takashima, 2008; Ferris, 2006; Sheen, Wright & Moldawa, 2009; Van Beuningen, De Jong & Kuiken, 2012).

The question of whether feedback can help learners improve accuracy may relate to the types of feedback employed to tackle certain linguistic features. It may also relate to the approach integrated with certain feedback type in providing corrections to the learners. Hyland & Hyland (2006c) mention about delivering feedback in a variety of "mode" to ensure effectiveness and that these approaches should provide opportunities for learners to interact and revise their work more clearly based on the written corrections given to them. This calls for teachers to be more resourceful in dealing with these feedback issues. Claimed to be the most commonly used corrective feedback in language classrooms, comprehensive or unfocused corrective feedback tackles a wide range of language features in students' written work (Ellis, 2009; Lee, 2008a). On the other hand, there are also studies that demonstrate effectiveness of selective or focused corrective feedback, since learners only need to focus their attention to a limited number or just one type of language feature (Bitchener & Knoch, 2008a; 2009a; 2010). There are also studies involving peer feedback (Lim & Jacobs, 2001; Sato & Lyster, 2012) and other modes such computer-mediated feedback (Burstein, 2003; Liu & Sadler, 2003; Stapleton & Radia, 2009; Warschauer, 2002) have demonstrated that these approaches to providing feedback can be some of the resources that teachers can make use of in providing effective feedback.

1.2 Significance of the Study

Hyland & Hyland (2006c) claims that corrective feedback provided for the learners' written work is an important source for language development due "its potential for learning and for student motivation" (Hyland & Hyland, 2006c, p. 83). Thus, as cited by Peterson & McClay (2010), it is the belief of most teachers that corrective feedback is imperative so that students will know what is wrong and what is right with their work.

However, the extent to which feedback plays a role in improving or hampering students' linguistic accuracy is still unresolved. Generally, teachers will try to provide as much feedback as possible to students thinking that the more feedback given, the more students will improve in the next writing assignment. The question is, how true is this assumption when it comes to correcting linguistic errors in students writing? Findings from various studies suggest that it may be the type of feedback used that influences effectiveness in increasing linguistic accuracy in students' writing (Bitchener, 2012; Ellis, 2009; Ferris, 2004). Determining the type of corrective feedback that is effective in helping the learners to enhance second language acquisition is essential. Thus, it is the primary aim of the present study to be able to provide some insights on this matter that may afford some guidelines on selecting effective corrective feedback. To further elaborate on the significance of the study, the next section on research gap will describe the importance and the substance this research may contribute to the issues of corrective feedback.

1.3 Research Gap

Unfocused feedback is an error correction that tackles all or a wide range of linguistic error categories in a written assignment. On the other hand, focused feedback is provided for only one or a few error categories in students' written work. Generally, unfocused corrective feedback is the most practised approach in providing error corrections for students' written work. Studies carried out by Lee (2008a; 2009) point out that teachers are usually expected to provide feedback for all or a range of grammatical features, apart from other components in students writing including mechanics, content and vocabulary. However, recent findings indicate that focused feedback can be effective in helping students improve selected linguistic accuracy (Bitchener, 2008; Bitchener & Knoch, 2008a; 2010; Sheen et al., 2009). Nevertheless, the number of studies to compare the extent of influence these two types of feedback

have on improving linguistic accuracy has been limited and these studies have produced different findings (Sheen et al., 2009; Elis et al., 2008).

Since unfocused feedback is what is commonly expected in error correction, as mentioned by Lee (2008a; 2008b; 2009) in her studies on teachers' feedback practices in classrooms and students' expectations of corrective feedback, it is helpful if ways can be found to ensure effectiveness of this approach as compared to focused feedback. Ellis (2009) also asserts that there is a need to compare the extent of the effectiveness between focused and unfocused CF. However, the varied findings from these studies suggest that it is still not substantial to make an affirmative claim as to the extent of the effectiveness of the two types of CF. Furthermore, Ellis et al. and Sheen et al.'s studies employ direct feedback to provide error corrections for both focused and unfocused feedback. In an attempt to further develop a more sound assumption on this issue, the present study will investigate the use of the indirect focused corrective feedback and indirect unfocused corrective feedback in enhancing the accurate use of linguistic forms by ESL learners in writing tasks over a period of 12 weeks.

Direct feedback which is a form of correction where teachers provide learners with the correct form does not leave much space for the learners to extensively reflect on the errors committed, as Ferris and Roberts (2001) suggest, this type of feedback is more suitable for low proficiency learners. Indirect corrective feedback as used in the present study, on the other hand, will provide learners opportunity to engage in a more reflective processing of the feedback given, thus the possibility of contributing to long-term learning (Ellis, 2009; Ferris, 2006). The greater opportunity for the learners to reflect and process, the more extensive their engagement will be, in trying to correct the errors that they commit. Since Storch & Wigglesworth (2010) have proven that the extent of engagement in language-related episodes (LREs) influences the uptake and retention of CF by the learners, both types of CF will be treated by providing written

feedback and engagement in LREs where learners discuss with their peers on the indirect feedback provided for their writing tasks. To better clarify some of the operationalised terminology used in this study, definitions are provided in the next section.

1.4 Definition and Terminology

The study operationalised feedback types as focused indirect and unfocused indirect corrections of which negative evidence is provided to learners to facilitate noticing of errors, acquiring the correct form, thus eventually increasing linguistic accuracy. Ellis's (2009) and Bitchener & Ferris' (2012) typology of corrective feedback is mainly used as the ground to define this nomenclature. Additionally, the qualitative domain of this research focuses on the factors that influence uptake and retention of linguistic accuracy resulting from these two feedback types by ESL learners in written work. This section will describe the key terms used in the study by explaining the focused and unfocused corrective feedback, as well as the explanation on the indirect feedback as used in the context of the present study.

1.4.1 Focused Corrective Feedback

Focused CF can be categorised as an intensive type of correction. Highly selective focused CF concentrates correction on only one error type. Ellis et al. (2008) for example, focuses on articles as one error type in their study. Less intensive focused CF may tackle more than one error type, but still limiting concentration to linguistic features. One such study is by Bitchener et al. (2005) where the focus is on three linguistic features which are prepositions, past simple tense and definite articles. The following example illustrates this corrective feedback type:

SVA P

The <u>graph illustrate</u> the number of students that satisfy with service offer <u>in</u> the clinic

Note: SVA = Subject-verb Agreement, P = Prepositions

Feedback using a form of a coding system given in the example is focused on only subject-verb agreement and prepositions. Although there are other errors in the sentence, they are not purposely highlighted to the learners. Since this type of CF is concentrated and thorough, Ellis (2009) points out that learners may be able to process the feedback provided reflectively, thus enabling them to notice the errors committed in their written work. However, studies like Van Beuningen et al. (2012) and Ferris (2006) have also proven that unfocused corrective feedback can help learners improve their linguistic accuracy in written work.

1.4.2 Unfocused Corrective Feedback

While focused CF is selective, unfocused feedback tries to tackle a broader range or all of error categories. In other words, unfocused feedback is extensive and comprehensive where learners will get corrections on many aspects of writing tasks, usually on content, grammar, word choice and mechanics. Providing unfocused CF for learners' written work is the common practice in most ESL classrooms (Bitchener & Ferris, 2012; Ferris, 2006; Lee 2008a; 2009; 2013). The use of coding system is selected as being more practical in this case due to a broader range of error categories to be addressed. The following example shows how unfocused CF is provided for written work:

SVA \land VF A VF P SP The graph show the number of students that satisfy with service offer in the clinnic. Note: SVA = Subject-verb Agreement, \land = missing word, VF = Verb Form,

P = Prepositions, SP = Spelling Error

The coding system used to indicate errors in the sentence above covers a wide range of linguistic errors. In the example, all types of errors committed are addressed. Since learners are expected to attend to various error types, Ellis (2009) states that they may not be able to acquire specific linguistic form. However, he mentions that unfocused feedback may have a long term effect where it can help students' language acquisition better. The Storch & Wigglesworth (2010) study demonstrated the more extensive the engagement of learners in the LREs is, the greater uptake and retention are achieved. Assuming that retention would eventually lead to acquisition, to provide space for extensive LREs engagement, indirect feedback is chosen for both focused and unfocused CF types in the present study.

1.4.3 Indirect Corrective Feedback

Bitchener & Ferris (2012) describe indirect feedback as corrections that only indicate the occurrence of error but do not explicitly provide the correct forms of the errors. Learners will be directed where the errors are by underlining or circling the parts. Another sub-type of this indirect feedback is the indication given in the margin of where the errors have been made. This type of feedback only indicates that an error is committed but the learner is not directed specifically to the location of the error in the written work. For both types, however, the correct form of the error is not provided in the feedback. The present study employs the former by underlining the erroneous parts to direct the learners to the errors and indicating the type of errors using the coding system. Lalande (1982) claims that indirect feedback provides opportunities for learners to be engaged in "guided learning and problem solving". This is in line with the framework grounding the present study where engagement in LREs steers learners to be more reflective in responding to the written feedback provided,

thus leading to a more effective second language acquisition. The key here is to enable learning, in a long run, where one of the primary concerns of providing feedback is to ensure uptake and retention of linguistic forms accuracy in subsequent written work.

1.5 Research Questions and Hypotheses

The purpose of this study is to compare the efficacy of two feedback types on students' written work. It is designed by integrating engagement of learners in LREs of which the feedback types are operationalised as unfocused indirect and focused indirect feedback targeting three linguistic features: subject-verb agreement, prepositions and articles. The study's aims comprise three premises of which it is assumed that corrective feedback provided for the learners' written work will facilitate in the increase of accuracy of these linguistic forms. Secondly, it is hypothesized that these two types of feedback significantly differ in the extent of their influence on the accurate use of these forms. Finally, through analyses of the LREs and interviews, the study also examines the factors that affect the uptake and retention of the accurate use of the targeted linguistic forms resulting from both focused and unfocused feedback. Primarily, this mixedmethod study attempts to address the following research questions:

- 1.5.1 To what extent does the indirect focused corrective feedback (FCF) influence the accurate use of subject-verb agreement (SVA), prepositions and articles in written work over a period of time?
- 1.5.2 To what extent does the indirect unfocused corrective feedback (UFCF) influence the accurate use of subject-verb agreement (SVA), prepositions and articles in written work over a period of time?
- 1.5.3 Is there any significant difference in the effect of indirect focused corrective feedback (FCF) and indirect unfocused corrective feedback (UFCF) on the

accurate use of subject-verb agreement (SVA), prepositions and articles in written?

1.5.4 What are the factors related to the Language-Related Episodes (LREs) that influence the uptake and retention in the accurate use of the targeted linguistic forms resulting from indirect focused and indirect unfocused corrective feedback?

The quasi-experimental component of this study comprises two premises. First, the comparison made between the groups that receive indirect FCF, indirect UFCF and the group that does not receive any feedback is to determine the extent of influence corrective feedback has on the extent of accurate use of the targeted linguistic forms. The assumption of this inquiry is that corrective feedback facilitates learners to increase accuracy of linguistic forms in written work. Secondly, another comparison is made between learners that receive indirect FCF and indirect UFCF to investigate if learners provided with indirect UFCF are significantly better in improving the accuracy of linguistics forms in written work over time. This is considering the fact that these learners are engaged in the LREs where the extent of engagement is a factor that leads to greater uptake and retention of the linguistic forms being discussed as proven by Storch and Wigglesworth (2010) in their study. This assumption is grounded on the conceptual framework of Swain's output hypothesis of which learners have the opportunity to notice, test the hypothesis and internalize metalinguistic knowledge into their interlanguage system from the written feedback provided as well as from the engagement in the LREs. Furthermore, the use of indirect feedback in the design of this study supports this framework by providing opportunities for learners to be involved in "guided-learning and problem-solving" processes which eventually lead to greater uptake, retention and long-term acquisition (Ferris, 2006; Lalande, 1982; Storch &

Wigglesworth, 2010). To answer research questions 1, 2 and 3, the following hypotheses are investigated:

Hypotheses 1

 H_{01} : Learners that receive indirect focused corrective feedback will not significantly improve in the accurate use of subject-verb agreement in written work over a period of time.

H_{A1}: Learners that receive indirect focused corrective feedback will significantly improve in the accurate use of subject-verb agreement in written work over a period of time.

Hypotheses 2

 H_{02} : Learners that receive indirect focused corrective feedback will not significantly improve in the accurate use of prepositions in written work over a period of time.

H_{A2}: Learners that receive indirect focused corrective feedback will significantly improve in the accurate use of prepositions in written work over a period of time.

Hypotheses 3

 H_{03} : Learners that receive indirect focused corrective feedback will not significantly improve in the accurate use of articles in written work over a period of time.

H_{A3}: Learners that receive indirect focused corrective feedback will significantly improve in the accurate use of articles in written work over a period of time.

Hypotheses 4

 H_{04} : Learners that receive indirect unfocused corrective feedback will not significantly improve in the accurate use of subject-verb agreement in written work over a period of time.

H_{A4}: Learners that receive indirect unfocused corrective feedback will significantly improve in the accurate use of subject-verb agreement in written work over a period of time.

Hypotheses 5

 H_{05} : Learners that receive indirect unfocused corrective feedback will not significantly improve in the accurate use of prepositions in written work over a period of time.

H_{A5}: Learners that receive indirect unfocused corrective feedback will significantly improve in the accurate use of prepositions in written work over a period of time.

Hypotheses 6

 H_{06} : Learners that receive indirect unfocused corrective feedback will not significantly improve in the accurate use of articles in written work over a period of time.

H_{A6}: Learners that receive indirect unfocused corrective feedback will significantly improve in the accurate use of articles in written work over a period of time.

Hypothesis 7

 H_{07} : There is no significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of subject-verb agreement in written work.

H_{A7}: There is a significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of subject-verb agreement in written work.

Hypothesis 8

 H_{08} : There is no significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of prepositions in written work.

H_{A8}: There is a significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of prepositions in written work.

Hypothesis 9

 H_{09} : There is no significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of articles in written work.

 H_{A9} : There is a significant difference between learners that receive indirect unfocused feedback and the learners that receive indirect focused feedback in the accurate use of articles in written work.

1.6 Limitations of the Study

The study is not without limitations that need improvement in future research. Firstly, the focus of the investigation is limited to looking at only specific types of corrective feedback, which are indirect focused and indirect unfocused feedback. Therefore, the findings that transpire from this study may be different from studies that employ other types of corrective feedback. In other words, it is considerable to claim that results are limited and accurate only to these investigated types of corrective feedback.

The second limitation is that the study uses only one type of writing task, that is, graph description for the reasons that these participants have already been exposed to this type of writing and that graph description enables participants to produce a considerable number of subject-verb agreement, prepositions and articles in their written work. Thus, there is a possibility that results may be different if different types of writing are used for the treatment.

Thirdly, the focus of the study is solely on grammar features of the writing output. There is no attention given to the use and development of the vocabulary or content in the written work assigned to the participants. Furthermore, the focused linguistic features are of only three forms – subject-verb agreement, prepositions and articles – and that other linguistic features that participants may have obviously used incorrectly are not being addressed in the corrective feedback provided for the focused

CF group. These other forms are therefore not analysed and discussed in the findings of the study. Apart from limitations of the study, some ethical considerations are addressed in the following section.

1.7 Ethical Considerations

One of the important ethical considerations is to ascertain that the study carried out does not influence in any way the performance of the participants in the proficiency course that they are doing during the semester. This includes the effect it has on the time and the course syllabus. The study is done outside the allocated class hours with the consent of the participants. Since reading skill is the focus of the course, the written tasks given to the participants do not influence the lesson, tasks or assessments done in class.

1.8 Thesis Outline

The dissertation comprises six chapters reporting the study carried out on two types of corrective feedback and their influence on the accurate use of linguistic forms in written work. The present chapter provides explanation on the background of the study, definition and terminology, research questions and hypothesis as well as the outline of this thesis.

The second chapter describes previous literature related to the role of corrective feedback in second language learning. This includes feedback types and some of the issues related to their efficacy in facilitating the increase of linguistic forms accuracy by second language learners. Reviews on relevant empirical studies that employ experimental and quasi experimental methods in investigating feedback efficacy in second language learning are also presented in this chapter. A segment of this chapter is dedicated to discuss qualitative studies focusing on interviews and language-related episodes analyses to explore factors that enhance feedback efficacy from the learners'

perspective. Drawing on these reviews, a conceptual framework derived from second language learning theories is described.

Chapter three explains the methodology adopted, detailing the participants, linguistic features, treatment and tests. Issues related to feedback coding system and LREs pair talk are also discussed in this section. The chapter also describes the qualitative interview carried out to address the fourth research question, focusing on the types of interview questions and the coding system to categorise analysis of transcripts.

Chapter four presents data analysis and interpretation gathered from the quantitative investigation. These include the data to address feedback efficacy derived from performance of participants in the pretest and the two posttests as well as the data to determine the difference of efficacy between indirect FCF and indirect UFCF from the two posttests results.

Chapter five discusses analysis of the language-related episodes and the qualitative interview to identify factors that enhance uptake and retention of linguistic accuracy in written work by ESL learners.

Chapter six presents the summary of results and findings in the light of the theoretical framework of which this study is based on. The discussion centres around feedback efficacy and implications of the study on second language learning specifically referring to writing tasks. Limitations of this study and future research are also included in this chapter. A summary and conclusion wrap up this dissertation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

One of the pertinent issues that has been continuously discussed in the field of second language learning is the role of corrective feedback and its influence on learners' linguistic development. A good number of studies relate contradictory views on this matter. At one end, some scholars believe that corrective feedback is facilitative for language acquisition (Bitchener et al., 2005; Bitchener, 2008; Chandler, 2003; Ferris, 1999; 2004; 2010). On the other hand, there are findings that may have cast doubts on the effectiveness of corrective feedback on learners' language development (Polio, Fleck & Leder, 1998; Truscott, 1996; 1999; 2004; 2007; 2009; 2010; Truscott & Hsu, 2008). In lieu of these discrepancies, studies reported in second language literature indicate that there have been extensive investigations on corrective feedback efficacy in diverse learning environments. The various types of corrections employed in feedback studies suggest different facilitative influence on the learners' linguistic accuracy development (Bitchener, 2008; Bitchener et al., 2005; Bitchener & Knoch, 2008a; 2008b; 2009a; 2009b; 2010; Chandler, 2003; Ellis et at., 2008; Hartshorn et al., 2010; Sheen, Wright & Moldawa, 2009; Van Beuningen, 2012). However, in his argument against grammar correction, Truscott (1999) claims that the various types of corrective feedback bear no importance because the fact of the matter is that corrections are ineffective and may even be detrimental to learners' language development.

Thus, in order to outline the various important aspects related to corrective feedback, this chapter will discuss empirical studies of corrective feedback with specific reference to the role and differential effects of feedback efficacy in written work. Reviews of literature that report on learners' uptake and retention of the linguistic accuracy in new writing tasks over a period of time will also be included in this chapter.

Finally, relevant second language learning theories, the theoretical framework specifically referring to Swain's (1995; 2000; 2005) Output Hypothesis and the research gap the present study attempts to explore are discussed at the end of the chapter.

2.1 The Role of Corrective Feedback in Second Language Acquisition

Since Truscott (1996) pitched his standpoint rendering corrective feedback as not just being ineffective but also detrimental to the language development, continuous debates have sparked among the scholars in the field of second language acquisition as to the role of corrective feedback in the learning process.

Ferris (1999, 2002, 2004; 2006), being the advocate of the use of corrective feedback in providing assistance to learners' linguistic accuracy, have tried to attest the effectiveness of corrective feedback in many of her studies (Ferris, 2006; 2010; Ferris & Hedgecock, 1998; Ferris & Roberts, 2001) along with some other scholars in the field (Bitchener, Young & Cameron, 2005; Bitchener, 2008; Bitchener & Knoch, 2008a; 2008b; 2009a; 2009b; Chandler, 2003; Elis et al., 2008; Sheen, Wright & Moldawa, 2009). On the other hand, there are also studies that investigate the role of corrective feedback in language learning that have yielded findings supporting Truscott's stance (Sheen, Wright & Moldawa, 2009; Sheppard, 1992; Polio, Fleck, Leder, 1998) on the ineffectiveness of corrective feedback.

Ferris (2004) summarised six studies on the comparison of group receiving corrective feedback and no-correction group (Ashwell, 2000; Fathman & Whalley, 1990; Ferris & Roberts, 2001; Kepner, 1991; Polio et al., 1998; Semke, 1984). Even though the Polio et al. (1998) study does not show the effectiveness of corrections on the learners' linguistic accuracy development, data from four studies (Ashwell, 2000; Fathman & Whalley, 1990; Ferris & Roberts, 2001; Kepner, 1991) indicate positive effects of corrective feedback on learners' language accuracy. Taking into account the methodological differences of the studies, the diverse research variables may have

contributed to the failure of attempts in making equivalent comparison of the different studies or more specifically to group the findings in certain systematic categorization, where effectiveness is concerned. Even though the directions of the findings may have pointed to either positive or negative end, it seems many research aspects, such as sampling procedures and treatment design, need to be carefully considered in making conclusive assumptions. The following subsection discusses some of the issues that stem from the diverse findings reported in the feedback literature.

2.1.1 Issues on Corrective Feedback in Language Learning

While being clear in his viewpoint on the importance of using accurate grammar in written work, Truscott (1996) contends that grammar correction should not be provided with other feedbacks such as content and organisation on learners' work. This assertion is made based on three main reasons which are, findings gathered from corrective feedback literature may have been misleading in demonstrating feedback effectiveness, theoretical and practical ineffectiveness of grammar correction and the detrimental effects grammar correction has on learners' language learning development.

Claiming that studies on corrective feedback lack evidence to support the notion that grammar correction is effective to improve learners' language accuracy in writing, Truscott (1996; 2007) refers to a number of studies to prove his case. Methodological issue is one of the grounds for his argument asserting that previous studies did not provide sound evidence for feedback efficacy in learners' language development (Bitchener et al., 2005; Chandler, 2003; Fazio, 2001; Robb, Ross & Shortreed, 1986; Semke, 1984; Sheppard, 1992). Citing these studies, Truscott (1996; 1999; 2007) states that since these studies for one are not lucidly defining in what constitutes a control group, findings from these studies cannot be considered to address the question of whether grammar

correction is indeed effective or not. Truscott refers to Robb et al.'s (1986) study to highlight this methodological argument. He points out that one of the groups received feedback in a form of the number of errors in the margins of the sentence line. Since this kind of feedback does not actually provide much information for the learners to work on, Truscott considers the group as the control group. Results indicate that all four groups in the study show a gradual increase in accuracy over time regardless of the feedback types. Truscott (1996; 2007) relates this finding to his claim that grammar correction is not necessary since learners in the group that he considers as the control group show no significant difference from those in groups that receive feedback.

On the other hand, Chandlers' (2003) study is criticized as not addressing the question of feedback efficacy because Truscott (2004; 2007; 2009) considers the control group in her study as not methodologically a control group. Errors committed by the participants in the group were underlined. In the Chandler study, the learners were not required to respond to the feedback until the data collection was over. Chandler (2004; 2009) insists that the feedback provided was not correction and since the learners did not pay heed to the feedback, the group is considered as not receiving any correction from the teacher. She also contends the claim that Truscott (1996; 2007) makes on the Robb et al. (1986) study about the control group issue. If Robb et al.'s treatment group that received error feedback and was required to make corrections and revision is deemed as a control group on the basis that they received too little information, Chandler (2004; 2009) questions Truscott's arguments rendering her control group as a treatment group when her control group received clearly much less information on the errors than that of Robb et al.'s and that the learners were not required to make corrections until after the treatment period.

This seemingly unresolved methodological issue that appears to impede any form of agreement on the central problem of feedback efficacy calls for further research. Ellis et al. (2008), Bitchener (2008) and Bitchener & Knoch (2009b) have carried out investigations that provided a clear cut definition of a control group, of which participants in the group did not receive any form of feedback addressing specifically the question of whether there is a significant difference between groups that receive feedback and the group that does not. Findings from all three studies indicate that groups that receive error corrections, regardless of the feedback types outperform the groups that receive no feedback. Truscott (1996; 1999; 2004; 2007) insisting that error correction is ineffective attributes the gains in accuracy to other factors that may have influenced the results such as "language experience, maturation" (2007, p.267), and "writing practice" (2009, p.60).

Sheen et al. (2009) then conducted a study that comprised an additional group that went through the writing treatment but feedback was not provided. The other two groups received error feedback for their written work and the participants in the control group were not required to complete the writing tasks nor were they provided with any feedback. Results from this study reveal the group that was required to complete the writing practice improved in the accuracy of the articles use even without any error corrections provided. In fact, the writing practice group performed better than the group that received unfocused error corrections. Even though the focused group showed the highest accuracy gains in the study, the fact that writing practice group that did not receive any error corrections can still improve in accuracy better than the unfocused correction group cannot be overlooked. This finding renders support to Truscott's (2007; 2009) claims that other factors such as writing practice may

benefit the learners in improving accuracy even without the presence of error corrections.

Theoretically, Truscott (1996) argues that corrective feedback is ineffective because first, the interlanguage system is built upon a complex process. Learning and acquisition cannot be achieved through a mere transfer of knowledge assumed to take place by providing corrections to the grammar errors the learners commit. Secondly, the claim that there is a sequence of grammar acquisition proposed under the developmental sequence theory relate to the individual performance of the learners. In this view, Truscott believes that the current practice of providing corrective feedback in classrooms does not tackle this issue effectively. Learners' linguistic ability develops at different paces, thus the current feedback practice is deemed ineffective because it does not facilitate individual language development.

Even though Ferris (1999) disagrees with the overtly strong notion of abandoning grammar correction altogether, she does support the concern over the issue of developmental sequence. She acknowledges the fact that learners may not be able to effectively acquire information through corrective feedback consistently due to the different error types, since "syntactic, morphological and lexical knowledge are acquired in different manners" (Truscott, 1996). In order to deal with this problem, Ferris (1995; 1999), Ferris et al. (1997) and Ferris & Hedgcock (1998) suggest that learners are trained to self-edit their own written work and that teachers may provide indirect corrective feedback for "treatable" grammar errors, which are strictly rule-governed grammar items such as subject-verb agreement and missing articles. Furthermore, Ferris (2006) also suggests that teachers should consider combining self-editing training and direct corrective feedback for "untreatable errors", of which there is no fixed set of

rules that learners may refer to in order to make corrections, like word choice error.

The third theoretical argument that Truscott (1996) brings forward is that learners who receive grammar corrections are inclined to demonstrate pseudolearning. Learning may seem to have taken place but in actual fact this condition is not "real learning" as acquisition does not occur. Learning does not last long enough for the learners to use the knowledge that they seem to acquire for writing practices in the future. In order to address this issue, Bitchener & Knoch (2009a) carried out a longitudinal investigation to study the effect of written corrective feedback with 52 low-intermediate ESL learners spanning over a 10-month period. Considering the arguments posed by Truscott on the issue of developmental sequence, Bitchener & Knoch's study focuses on only two functional uses of articles, the referential indefinite for first mention and referential definite for subsequent mention. For each test, participants in the study were required to describe the social events in the visuals. The three treatment groups were given direct written corrections with oral meta-linguistic explanation, direct corrections with written meta-linguistic explanation and direct corrections respectively. The control group did not receive any form of feedback. Findings from this study indicate that all three treatment groups outperformed the control group showing statistically significant figure in all four posttests administered in week two for immediate posttest and later in the second, sixth and tenth month of the study for the three delayed posttests. Taking into account the extensive duration of the study and the fact that writing tasks require participants to produce new written work for each test, we may assume that Truscott's contention on the issue of pseudolearning perhaps has been addressed. Bitchener and Knoch's study implies that the written corrective

feedback has been able to assist learners in acquiring the two functional uses of the English articles as indicated in the data from the four posttests over a 10month duration. The retention of the two article functions over a period of time and across four writing occasions suggests that acquisition does take place, eliminating the possible occurrence of pseudolearning.

On the practical basis, Truscott claims that teachers may not be able to recognize all errors that students have committed in their writing. This maybe because of the limitations in the knowledge of the grammar or maybe also be due to the fact that language evolves and so does the grammar system. It is also unlikely for correction to be reliably constant because when dealing with too many errors, it can be time consuming and error types may not fit in a fixed structure all the time. These inconsistencies may affect the feedback provided to the students. Truscott further argues that students may not be able to understand all the corrections given. Even if they may understand the corrections, they may not be able to retain the information long enough to use in subsequent writing tasks or apply it in different contexts.

Regarding this matter, Ferris (1999), while acknowledging the truth in Truscott's claims, she believes that problems such as inconsistencies and limitations of teachers' ability to reliably provide accurate feedback can be overcome by focusing on "preparation, practice and prioritizing" (Ferris, 1999, p.6). By going through sufficient training, practically and theoretically, teachers should be able to provide students with accurate information in order to help students enhance their language learning experience. Ferris further suggests that teachers could prioritize their corrective feedback on errors that are most frequently committed. By adopting this selective correction strategy, learners as well as teacher may be able to be more thorough and accurate in tackling

grammar problems faced by the learners. At the same time, this approach may help in avoiding the problems of overburdening the teachers and students. In the context of the present study, the purpose of the strategy was selected in an attempt to determine the differential effects of unfocused corrective feedback, which is the common classroom practice to focused or selective corrections, as proposed by Ferris as a means to overcome the practical problems of grammar correction asserted by Truscott.

Truscott's third provision supporting his hypothesis to abandon grammar correction is that grammar correction poses harmful effects on language learning development. Referring to Cohen (1987), Truscott also claims that grammar correction may be detrimental to the affective factors such as attention and motivation that are important in enhancing language acquisition. Learners may be discouraged by the many corrections that they receive. Furthermore, spending too much time on grammar correction can distract learners from focusing on more important tasks in writing processes. Based on her study on learners' attitude toward error feedback, Lee (2008b) implies that learners are keen to know more about their overall performance on the writing task rather than just getting information on the language errors that they have committed. On the other hand, Ferris (1999) believes that learners' expectation for teachers' feedback on their written work should be fulfilled and that the absence of any corrections may de-motivate the learners and lessen their gravity in improving accuracy. Lee suggests that teachers should tackle this issue by utilizing students' expectation of teachers' comments. Since students prefer comments to error feedback, teachers should convey meaningful information on their written performance, balancing between language errors feedback and feedback on other aspects of writing process.

While this argument against Truscott on the issue of expectation seems to be a valid case for Ferris in asserting the importance of grammar corrections, Lee (2009), tackling the matter from the teachers' perspective revealed that teachers are of an opinion that accuracy is merely a portion to developing learners' writing skills. Focusing on only language accuracy may not be a constructive approach to enhance writing proficiency since other components such as content and organization are also crucial elements in writing tasks. Furthermore, teachers who were interviewed in the Lee study expressed concern over repeated language errors even after numerous corrective feedback and this problem begs the question of whether grammar correction is really effective in helping the students improve accuracy. Findings such as these are parallel to Truscott's (1996; 1999) claim that even when grammar corrections are provided, errors are recurring, implying the ineffectiveness of the corrections.

Nevertheless, it may be worthwhile to consider that the varied findings from numerous studies as an indication that there is still room for teachers and researchers to maneuver ways and means to find solutions to providing feedback. Ferris (2004) suggests that teachers be prepared to provide feedback that encourages problem solving and this should be done accordingly to the needs of the learners as well as the instructional context. Despite these unremitting debates on the issue of corrective feedback efficacy, scholars in the field continue to explore the ties between feedback types and learning conditions that can help learners improve language accuracy. Further studies are necessary in order to ascertain more effective approaches to corrective feedback or to an extreme end, determining the role of grammar correction in the development of learners' writing skills. The next subsection discusses some of the feedback types

and the environment in which these corrections may bring about desired effect in language learning.

2.1.2 Types and Efficacy

In an attempt to channel a form of systematic approach to using corrective feedback, Ellis (2009) has come up with a set of written corrective feedback typology intending to provide guidance to explore the possible strategies that could be adopted in providing feedback to learners' language production. The primary concern of this system is to address the needs of teachers and researchers in fully exploiting corrective feedback to the benefits of the learners. Bitchener & Ferris (2012) and Ferris (2003) also discuss at length the types of feedback that may be applicable in language learning classes in view of the learners' language proficiency, linguistic features, and other practical aspects that are crucial to be taken into account in delivering effective feedback to the learners.

2.1.2.1 Direct and Indirect Corrective Feedback

Specifically referring to written corrective feedback for linguistic forms, Ellis discusses a number of feedback types. The first category of feedback type is direct and indirect corrections. Direct feedback refers to corrections that are given explicitly to the learners, while indirect feedback is indicating that errors have been committed without providing the correct forms and this indication can be in varying degrees of implicitness. In a number of studies such as Ferris & Roberts (2001) and Chandler (2003) corrections are provided by indicating the presence of errors by underlining and/or coding them, at the same time indicating the location of the errors. Studies like Robb et al. (1986) indicates only in the margin that errors have been committed and but the specific locations of the errors are not given. Regardless of the level of explicitness or implicitness,

indirect corrective feedback seems to demonstrate facilitative effects on improving learners' linguistic accuracy (Chandler, 2003; Ferris, 2006; Ferris& Roberts, 2001; Robb et al., 1986).

Lalande (1982) suggests that indirect feedback may contribute to long term acquisition because learners attending to this type of feedback tend to be engaged in "guided learning and problem solving" activities. This process leads learners to reflect on "existing knowledge or partially internalized knowledge" in order to make corrections (Bitchener & Ferris, 2012, p. 65). On the other hand, direct feedback has the advantage of providing the learners with explicit information on the errors committed, thus avoiding any forms of confusion that may occur from interpreting corrections provided by the teacher on the written work. Due to the high level of explicitness of this type of feedback, Ferris & Roberts (2001) recommend that learners that are of low proficiency level may benefit from this type of feedback because the need to engage in a reflective process in making corrections is deemed as very minimal.

2.1.2.2 Metalinguistic Corrective Feedback

Another classification originating from Ellis' (2009) corrective feedback typology is metalinguistic feedback, which is further categorised as 1) metalinguistic information provided using error codes and 2) metalinguistic explanation for errors committed in the learners' written work. The latter may not be too practical to some extent because it can be time consuming and constant accuracy of metalinguistic explanation is expected for different error types. Nevertheless, despite the assumed impracticality of this correction type, considerably extensive studies have been carried out employing metalinguistic corrective feedback to investigate its effectiveness in helping learners improve

linguistic accuracy (Bitchener et al., 2005; Bitchener, 2008; Bitchener & Knoch, 2008a; 2008b; 2009a; 2009b; 2010; Sheen, 2007). Findings from these studies show that direct error correction combined with metalinguistic explanation may have encouraging long-term effect in improving learners' linguistic accuracy inferred from the improved accuracy in the learners' new pieces of writing in the delayed posttest. These studies that were conducted with learners of varying degrees in language proficiency suggest that learners are able to retain accuracy on the use of English articles over a period of time. However, as promising as these findings may seem, researchers agree that further studies should be carried out to explore if the benefits of this corrective feedback type can be expanded to other language features.

2.1.2.3 Focused and Unfocused Corrective Feedback

Ellis et al. (2008) and Sheen et al. (2009) note that unfocused corrective feedback is believed to be the "traditional" practice and commonly used in writing classes as demonstrated in the Lee (2004; 2009) studies where a majority of the teachers claim to provide comprehensive corrections for students' written work. This feedback type refers to corrections given to all errors or a wide range of errors committed, thus considered to be comprehensive and suggested to have a long term effect on learners' language accuracy (Ellis, 2009). The Van Beuningen et al. (2012) study that explores the comprehensive CF efficacy suggest that this CF type is effective in increasing learners' language accuracy in subsequent written work over a period of time. This study that compares four condition groups requires the participants to complete four writing assignments on biology-related topics. The two treatment groups receive either indirect or direct comprehensive CF, while the two control groups that do not receive CF

are either encouraged to self-revise their work or asked to complete additional writing practices. In both immediate and delayed posttests, learners in the treatment groups showed significant increase in overall language accuracy and much lesser errors were committed in both posttests, compared to the pretest, indicating CF effectiveness in facilitating language learning development over time.

In a much earlier study, Kepner (1991) attempted to determine two types of feedback effectiveness by comparing corrections given to all sentence level errors to comments given to content of journal entries. Findings indicate that there is no significant difference in the number of errors calculated after a period of 12 weeks. Also tackling a wide range of linguistic features, Semke (1984) compared four groups that received direct corrections, indirect coded feedback, direct corrective feedback with content comment and content comment only. Findings indicate that there is no significant difference between the three groups provided with corrective feedback and the content-comment-only group with regards to improved accuracy in journal writings over a 10-week period. Another unfocused corrective feedback study was carried out to compare four groups receiving direct corrections, indirect coded feedback, indirect highlighted feedback and marginal indication of total errors per line (Robb et al., 1986). Results show that all groups improved in accuracy by the end of the study period. However, there is no significant difference among the groups receiving different corrective feedback types.

Another study most commonly cited in feedback literature is Sheppard (1992), comparing two groups receiving written corrective feedback and content comment. Both groups also attended individual conferences with their teachers during the study. Again, findings from this study reveal that there is no

difference between the two groups in terms of gains in accuracy. Even though Truscott (1996; 1999) regards this as evidence showing that grammar correction is not effective and possibly harmful since all learners regardless of whether they were provided with feedback or not appeared to be almost equal in accuracy gains, Ferris (2003) argues otherwise on the grounds of methodological shortcomings. Guenette (2007) has also pointed out these limitations and agreeing with Ferris (1999; 2003; 2004), insists that findings from these studies should not be used as the reason for dismissal of corrective feedback practices in writing classes.

Alternatively, in more recent feedback literature, focused corrective feedback being more selective in providing error corrections is rendered to be effective to improve specific linguistic features in written work. Studies investigating the efficacy of different direct corrective feedback types have been carried out focusing only on the accurate use of English articles in written work (Bitchener, 2008; Bitchener & Knoch, 2008a; 2009a; 2010; Sheen, 2007). A two-month longitudinal study was carried out comparing four treatment groups to determine the effectiveness of three subcategories of direct corrective feedback focusing on only the accurate use of English articles (Bitchener, 2008). 75 low intermediate ESL learners were grouped into four treatment conditions, which included direct written with oral metalinguistic explanation, direct written with written metalinguistic input, direct written correction only and a control group that received no corrective feedback. Findings from this study indicate that all treatment groups outperformed the control group and the participants managed to retain the level of accuracy after two months as demonstrated in the delayed posttest. Even though there is a pattern showing that the group receiving only direct written corrective feedback performed better than the group receiving direct corrective feedback with written metalinguistic input, statistical data show no significant difference among the three treatment groups regardless of the different feedback types.

Experimenting with a larger group of 144 learners, Bitchener & Knoch (2008b) employed the same direct corrective feedback types focusing also on the accurate use of English articles. Similar results are gained from the study verifying the earlier findings that groups receiving corrective feedback performed better in accuracy scores compared to the control group. In an attempt to explore the extent of corrective feedback efficacy over a longer period of time, Bitchener & Knoch (2009a) carried out a similar study with the same treatment conditions with 52 participants over a 10-month period. Results prove that focused feedback employing direct corrective feedback types can facilitate learners to improve accuracy in the immediate posttest and more importantly, these learners were able to retain the accuracy after 10 months as shown in the delayed posttest. While maintaining the focus of the accurate use of English articles, Bitchener & Knoch (2010) employed three corrective feedback types in their study; written metalinguistic, indirect circle, written metalinguistic with 15-minute oral form-focused and a control group that did not receive feedback. In the immediate posttest, all three treatment groups performed better than the control group and there is no significant difference in the groups' performance. However, the group that received indirect corrective feedback failed to retain the accuracy in the delayed posttest, which was administered after 10 weeks, resulting in a non-significant result compared to the control group. Bitchener & Knoch (2010) deduce that the findings imply metalinguistic input provided as feedback for the errors assists advanced learners involved in this study to retain information over a period of time. This conclusion seems to corroborate the earlier findings in the Sheen (2007) study demonstrating the ability of the group receiving metalinguistic input to retain accuracy in the delayed posttest compared to the direct only group.

All these studies have demonstrated that focused corrective feedback is effective in improving learners' accurate use of specific linguistic form. Acknowledging the notion that learners acquire different domains of linguistic knowledge in varying degrees and stages (Bitchener & Ferris, 2012; Ferris, 1999; 2003; Truscott 1996), researchers assert that there is the need to carry out studies focusing the corrective feedback on other linguistic features (Bitchener & Ferris, 2012; Bitchener, 2008; Bitchener & Knoch, 2008a; 2009a; 2010; Sheen, 2007). Expanding the focus on three linguistic forms (definite article, simple past tense and prepositions), Bitchener et al. (2005) examined relative effectiveness of different subtypes of direct feedback. The first treatment group received written direct feedback with a 5 minute oral teacher-student conference and the second group received written direct feedback only. The control group received no feedback. Findings from this study substantiate the claim that the stages of acquisition are not the same from one learner to another and also from one linguistic form to another. With regards to the corrective feedback types, for past simple tense and definite article, written direct corrective feedback plus conference seems to assist learners the most in improving accuracy consistently over a period of time. However, the two corrective feedback types do not seem to have different effect on the accurate use of prepositions by the learners in the two treatment groups. In contrast to the other two linguistic features, statistical data show significant difference in the performance on the accurate use of prepositions over a period of 12 weeks. Bitchener et al. cite Ferris' (1999) explanation of "treatable" and "untreatable" linguistic forms to explain the

results of the study. Treatable forms refer to grammar features that are more strictly rule-governed than the untreatable forms which are more idiosyncratic. In other words, past simple tense and definite article are easier to "treat" than prepositions, which cannot be strictly and consistently explained by a set of rules.

The above mentioned studies provide findings on the use of either focused corrective feedback or unfocused corrective feedback combined with other corrective feedback types. However, comparison was not made between unfocused and focused corrective feedback types in a single study. To date, there have been two studies reported in the corrective feedback literature comparing the differential effects between focused and unfocused corrections (Ellis et al., 2008; Sheen et al., 2009). Both studies investigate relative effectiveness of these two corrective feedback types on the accurate use of English articles in written work over a period of time and direct corrections are employed for both focused and unfocused corrective feedback provided to the learners in these studies. Details of these two researches are discussed in the subsequent section.

2.1.2.4 Technology-Aided Corrective Feedback

Apart from the most common reported corrective feedback types discussed above, Ellis (2009) also discusses the use of technological instruments in corrective feedback practices. With the advent of technology, researchers and teachers in the field are experimenting with the digital tools to provide feedback to learners. Used as supplementary instrument in language learning classes, electronic feedback can be practically effective by providing reliably faster and consistent corrections to students' written work (Burstein & Marcu, 2003; Chen, 1997; Ware & Warschauer, 2006). Other studies like Schultz (2000) and Tuzi

(2004) explore the application of electronic feedback in peer response approach by comparing the traditional face-to-face interaction to computer-mediated interaction in a process-writing task. Encouraging findings show that learners improve in selected linguistic features regardless of their belief or attitudes towards the electronic-mediated feedback. However, as Ellis citing only Milton (2006) in his discussion on feedback typology implies that empirical research evidence is considerably scant specifically referring to corrective feedback using electronic tools.

The present study employed indirect corrective feedback in combination with focused or unfocused feedback for two primary reasons. The first reason is due to the fact that indirect feedback is assumed to be most effective with a more proficient learners (Ferris, 2003) of which matching the criteria of the participants in the present study. Secondly, indirect feedback has been proven in a number of studies that it can enhance long-term learning effect (Ferris, 2003; 2006; Ferris & Hedgecock, 1998; James, 1998). The following sections review literature on a number of differential effects studies on the use of focused and unfocused corrective feedback as well as the comparison between direct and indirect corrective feedback types.

2.2 Differential Effects Studies on Corrective Feedback Efficacy

Truscott (1996; 1999; 2004; 2007; 2009; 2010) claims that corrective feedback is ineffective when it concerns developing grammatical accuracy in language learning. Ferris (1999; 2004) however, vehemently argues that Truscott's claim is misleading and focus should be placed more on the error types and selective corrective feedback in order to achieve efficacy. Responding to these issues, a good number of studies comparing feedback efficacy have been conducted in an effort to determine which type of feedback can better assist learners to improve language accuracy. The next section

focuses the review on two differential effects studies which are focused/unfocused and direct/indirect corrections.

2.2.1 Focused and Unfocused Corrective Feedback

Unfocused feedback which is claimed to be the common practice in most writing classes is described as the attempt that teachers make in correcting all or an extensive range of errors in learners' written work (Bitchener & Ferris, 2012; Ellis, 2009). On the other hand, focused corrective feedback is provided intensively for a single error or error category. Ellis believes that this type of corrections is able to provide "rich evidence" for the learners to be aware of the errors committed and that a more focused attention to that particular error may lead to a more enhanced learning.

Earlier feedback literature report a good number of studies employing unfocused corrective feedback, since it is claimed to be the common practice in language classroom (Bitchener & Ferris, 2012; Ellis et al., 2008; Kepner, 1991; Lee, 2009; Robb et al., 1986; Semke, 1984; Sheppard, 1992). But recent studies (Bitchener, 2008; Bitchener & Knoch, 2008a; 2009a; 2010, Ellis et al, 2008; Sheen, 2007) suggest a more selective focus in providing feedback, even though this focused corrective feedback may not yet be a widely accepted approach in providing feedback to grammar errors as opposed to the conventional unfocused corrective feedback. Lee (2004; 2009) and Ellis pointed out that encouraging findings from studies employing focused feedback should be taken into account since focused corrective feedback may be able to provide learners with intensive and rich source of linguistic input. So, in order to ascertain whether focused CF can be as effective as or more effective than the unfocused corrective feedback, comparison should be made and insights on how exactly these two corrective feedback types can be beneficial to the learners should be established. But, until

recently, there have only been two studies investigating the differential effects of the focused and unfocused corrective feedback types (Ellis et al., 2008; Sheen et al., 2009). Findings from these two studies however, are rather inconclusive since both studies yield slightly different findings. Since these two studies provide the basis for the present study, a clear understanding of the deductions derived from these studies may provide the insights for further refinement in the corrective feedback types chosen for the present study.

Conducted in an EFL setting, Ellis et al.'s (2008) study attempts to ascertain if corrective written feedback assists learners to improve accuracy in the use of English articles. Another aim of the study is to determine if there is any difference in feedback efficacy of the focused and unfocused corrections to improve accuracy of English articles used in written tasks. This quasiexperimental study spanned over 10 weeks involving 49 participants who were grouped into two treatment conditions and a control cluster. For the purpose of statistical analysis, only a total of 35 participants were included in the process since the participants who scored above .9 in the pretest were not included in the calculation. Participants in the study were required to complete six narrative writing tasks based on picture stories (three for pretest, immediate posttest, delayed posttest and three tasks for three treatment sessions). The treatment groups were provided with focused or unfocused correction accordingly. The control group completed the three writing tasks but not provided with any corrections. Error correction tests were also administered as the pretest and immediate posttest to test participants' explicit metalinguistic knowledge.

Findings indicate that all three groups increased in accuracy on the use of articles in the immediate posttest. However, variation occurs in the delayed posttest, where while the focused group continues to increase in accuracy, the

unfocused group's level of accuracy remains at the same level as the immediate posttest and the control group declines in accuracy. This result addressing the first aim of the study indicates that participants receiving corrective feedback managed to improve accuracy more consistently over time as opposed to those in the control group who were not given feedback. With regards to the second research question on the difference in the feedback types efficacy, statistical results show that there is no significant difference between the focused group and unfocused group in improving accuracy in the use of English articles in written work, although there is a pattern suggesting the learners that receive focused corrections seem to perform better than other groups.

Even though the Ellis et al. study seems to prove that corrective feedback helps improve accuracy in the use of English articles, Truscott (1996; 1999; 2007) argues that if indeed grammar correction is effective, learners who receive corrective feedback should perform better in writing tasks as compared to those not provided with feedback. In the Ellis et al. study however, it is noted that learners in the control group were required to complete the three written tasks during the treatment and statistical data indicate an increase pattern in the accuracy of the use of English articles from the pretest to immediate posttest. Judging from the improved performance it could serve as evidence that supports Truscott's claim that even without any corrective feedback learners may still improve linguistic accuracy to some extent. In order to verify this issue, Sheen et al. (2009) carried out similar study with an addition of one more treatment group that is the writing practice group.

Sheen et al. report on a study conducted comparing 4 groups clustered from 80 intermediate level ESL learners in a US college. The first concern is to investigate the differential effects of two types of written feedback, namely

focused and unfocused error corrections in the accurate use of English articles. The unfocussed group was provided with corrective feedback on copula 'be', regular and irregular past tense and prepositions, in addition to the corrective feedback on articles. Secondly, the study attempts to contend with Truscott's (1996) claim on the ineffectiveness and possible harmful effects of feedback in second language writing. The 4 clusters comprised 3 experimental groups categorised as those receiving focused written corrective feedback, unfocused written corrective feedback, writing practice group that received no correction but given the same writing tasks as the former two. Participants in the control group were not required to complete the writing tasks and thus, not provided with any corrective feedback. Over a period of 9 weeks, all three treatment groups showed gains in accuracy scores. However, in both immediate and delayed posttest, the focused group significantly outperformed other groups in the accuracy scores implying that focused corrective feedback is better than the unfocused in helping learners to become more accurate in the written work when it concerns English articles. In fact, the unfocussed group did not show significant difference from the control group in the accuracy scores in the posttests. What is interesting to note is, in the delayed posttest, the writing practice group achieved a significantly higher accuracy scores than the control group suggesting that Truscott (1996; 1999) may have a point in claiming that even without corrective feedback, it is possible for learners to improve accuracy just by practicing writing alone.

Results from the Sheen et al. study are different from that of Ellis et al.'s in which significant difference is not achieved between the focused corrective feedback and the unfocused corrective feedback groups. In the Sheen et al. study, the performance of the focused corrective feedback group can be

considered as consistent over time since in both immediate and delayed posttests, this group significantly outperformed other treatment groups. With regards to the writing practice group, in posttest 2, the group performed significantly better than the control group; thus, implying that over time, writing practice alone may have positive effect in improving accuracy where English articles are concerned. Another aspect that should not be overlooked from this study is the fact that the results also indicate that the focused group shows increased accuracy in other linguistic forms that are not provided with corrective feedback. Sheen et al. deduced that this is due to the fact that these learners have benefited from the corrections given on specific form that they are able to process and attend to other forms that are systematic in general.

The issue of correction being given systematically has been deliberated in both studies mentioned here. This relates to the number of corrections given to the article errors committed in the written narratives during the treatment sessions. As noted by Ellis et al. the considerable difference in the number of corrections provided on the targeted linguistic form which both focused and unfocused groups received could in some ways affect the effectiveness in the learners' response towards the corrections.

The diverse findings in studies discussed here imply that more empirical evidence is needed to enhance the knowledge pool that can help teachers and researchers to make a sound evaluation on the effectiveness of corrective feedback. Both studies (Ellis et al, 2008; Sheen et al, 2009) employed only written direct corrective feedback for all the treatment groups. Storch & Wigglesworth (2010) suggest that corrective feedback provided in the a form of editing symbols which is indirect feedback, can lead to improved uptake and retention as compared to reformulation or direct feedback, which is achieved

through extensive engagement in language-related-episodes (LREs). In addition, findings from the study by Bitchener et al. (2005) reveal that groups that receive written and oral feedback outperform other groups that receive written-only feedback and no-corrective feedback in all targeted linguistic forms (prepositions, past simple and definite article) accuracy over a period of time. Although evidence points to the positive effects of the explicit metalinguistic corrective feedback has on improving learners' language accuracy (Bitchener & Knoch, 2010; Caroll & Swain, 1993; Caroll, Swain & Roberge, 1992; Ellis et al., 2008), it may not deem practical to be used with unfocused corrective feedback. Sheen et al. pointed out that learners should not be overloaded with too much feedback corrections. Thus, in the case of unfocused corrective feedback, with explicit metalinguistic feedback, there is a possibility of negative influence on the effectiveness, where learners will have to process the "overloaded" information.

In relation to the findings of these studies, the methodological features can be viewed differently in terms of the participants involved and the approach of feedback employed. The studies use direct feedback where the errors committed are clearly indicated and correct forms are provided. According to Ferris and Roberts (2001), this type of feedback is suitable for learners with low proficiency level and it is highly unlikely to contribute to long term acquisition. Since the participants in the present study are of intermediate level, it is probable that indirect approach is a better means to assist learners in improving grammatical accuracy because studies have shown that indirect feedback enables learners to be involved in a deeper processing of linguistic features and errors. Studies by Lalande (1982), Ferris & Roberts and James (1998) are among others that suggest that this type of feedback assists learners to improve accuracy over

time due to its nature of engagement in "guided learning and problem solving", thus promoting acquisition. Tapping on these issues, there are a number of studies that look at the efficacy of direct feedback as compared to indirect corrective feedback, which will be discussed in the following subsection.

2.2.2 Direct and Indirect Corrective Feedback

Direct feedback which refers to explicit corrections provided by teachers for the errors committed has been the focus in a good number of studies investigating the effectiveness of different direct corrective feedback types (Bitchener, 2008; Bitchener et al., 2005; Bitchener & Knoch, 2009b; 2010; Sheen, 2007). On the opposite end of explicitness, indirect correction has also been discussed at length in feedback literature. According to Lalande (1982), since teachers only indicate that errors have been committed without providing the correct forms, learners are engaged in the process of "problem solving and guided learning" in making corrections when provided with indirect corrective feedback. Since there have been diverse findings with regards to the efficacy of both direct and indirect corrections, many researchers have attempted to determine the relative effectiveness of these feedback types by investigating the differential effects of these two feedback types.

Research findings in favour of indirect feedback suggest that this type of feedback seem to have positive long term effects. Learners are able to retain accuracy over a period of time with the caveat that the feedback provided is extensively attended to and revised (Chandler, 2003; Ferris, 2006; Lee, 2013; Lalande, 1982; Storch & Wigglesworth, 2010). Besides, learners' language proficiency and error types also contribute to the effectiveness of the indirect corrections. Ferris & Roberts (2001) suggest that learners may benefit more from indirect feedback if they are able to self-edit their written work. In other words, it

is probably best that these learners are of high intermediate to advanced level to benefit from indirect feedback. Another aspect highlighted by Ferris & Roberts (2001) and Ferris (2006) is the error types, of which treatable errors that are strictly rule-governed such as subject-verb agreement may deem to be more effectively and accurately revised by the learners even with the least salient form of indirect feedback for example, by just simply underlining the errors without any codes or other indications provided.

The Lalande (1982) study suggests that learners who received indirect error corrections in two-stage treatment process involving coding the errors and keeping track of the corrections, wrote significantly more accurate than the learners who received the traditional direct corrections. The participants in the indirect correction group were given the opportunity to refer to grammar books or ask for explanation from the teacher or peers to make corrections. This activity involved learners more intensively in making corrections compared to learners in the direct feedback group who were provided with the correct forms thus simply transferring the information from the feedback in their revised work.

As suggested by Lalande, being extensively engaged in the correction process is also one of the primary reasons that leads to greater uptake and retention of language accuracy as discussed in the Storch & Wigglesworth (2010) study. The study compares direct corrective feedback in a form of reformulation to indirect corrective feedback by providing editing symbols to the learners' graph descriptions. The pair talks of the participants in the correction and revision process were analysed for the occurrence of language-related episodes (LREs) focusing on the form (morphology and syntax), lexis and mechanics in the written work. The analysis provides evidence of greater uptake and retention of language accuracy by learners who were provided with editing

symbols. This is due to the extensive engagements in the LREs that occurred during the pair talk in the process of making corrections. In other words, the Storch & Wigglesworth study implies that there is greater uptake and retention of the language accuracy with a more extensive engagement in the LREs as observed in subsequent written work and this condition can be obtained by providing learners with indirect corrective feedback.

Similar findings have been discussed in the Ferris (2006) study investigating differential effects of direct and indirect feedback on the learners writing accuracy. Tackling the issue of short term and long term effectiveness, the study compares the corrective feedback effects on learners' progress in four writing tasks. Results indicate that learners made significant progress from essay 1 to essay 4 implying that the feedback provided seems to influence both short term and long term improvement in language accuracy. Ferris also states that regardless of the level of saliency of the feedback provided, learners were able to make revision accurately. However, different error types have different success rate in the revision process in relation to the short term or long term effectiveness.

Data show that direct corrective feedback may seem to be beneficial for increased accuracy in the short term revision and indirect corrective feedback seems to have the advantage for the long term accuracy gain. Ferris relates this outcome to Lalande's (1982) proposal on the process of "guided learning and problem solving" that is involved when learners are actively engaged in the revision activities since the correct forms of the errors committed are not provided. The learners would have to reflect on the corrections rather than simply reproducing the correct forms provided by the teachers.

In order to determine if one treatment session would be sufficient for learners to correctly revise and retain accuracy, Bitchener & Knoch (2010) involved 63 advanced ESL learners in the differential effects study comparing indirect and direct corrections. Group one and three received direct written metalinguistic explanation on functional uses of definite and indefinite articles. In addition to the written feedback, group three was provided with the opportunity to have oral review of the metalinguistic input in a 15-minute class discussion. Even though direct corrections for the errors committed were not provided and learners had to refer to the explanation to make corrections on their own, since metalinguistic explanation was available, Bitchener & Ferris (2012) classify this feedback type as direct corrective feedback. Group two was provided with indirect corrective feedback of which the location of an error was indicated by a circle and group four was a control group that did not receive any form of corrections. Short term efficacy is evident in all three treatment groups with significant difference in accuracy as determined in the immediate posttest. However, after 10 weeks, delayed posttest reveals that both direct corrective feedback groups are able to retain the level of accuracy while there is no significant difference between the indirect corrective feedback group and the control group.

Contrary to this finding, the Chandler (2003) study with similar proficiency level of learners (high intermediate to advance) produces a different result. Even though in the revision process, learners who receive direct correction manage to write more accurately than learners that received other correction types, in the subsequent writing task, learners that receive indirect underline feedback were equally successful in reducing the number of errors in their written work. Both indirect groups in the Bitchener & Knoch (2010) and

Chandler studies were only informed on the location of the errors. Yet, learners in the indirect feedback group in the Chandler study can be considered to perform just as well as the learners who received direct corrections.

Another discrepancy between the two studies lies in the classification of the corrective feedback types that also seems to produce different results. The indirect coded corrections of which errors are underlined and described that are employed in the Chandler study are quite similar to Bitchener & Knoch's direct written corrections with metalinguistic explanation. The slight difference is that the explanation in the Bitchener & Knoch study is slightly more extensive and an example is provided for the explanation, albeit both groups are not provided with the correct forms for the errors committed. Even though both correction types are fairly similar, findings indicate that learners in the Chandler study who received indirect coded corrective feedback can only improve accuracy in the revision process but they committed more errors in subsequent writings. On the other hand, learners who received direct written with metalinguistic input in the Bitchener & Knoch study demonstrated retention of accuracy in the delayed posttest.

Similar to Chandler's indirect coded feedback, the Van Beuningen et al. (2008) study also categorises indirect feedback as the type that indicates the errors by underlining and specifying the error types with a coding system. The study investigates whether corrections, in the forms of direct and indirect corrective feedback are able to help increase language accuracy compared to learners who are provided with ample writing practices without any forms of feedback and also with learners who self-correct their written work without teacher's feedback. Results indicate that learners who receive both direct and indirect corrections perform significantly better in revision task, of which Van

Beuningen et al. (2008) classify as short term effect. For the long term effect (defined as performance in the new writing task) there is no significant difference in the performance between direct and indirect feedback groups. However, data show a pattern of learners receiving direct corrections performing better than the learners in the indirect feedback group. Although the participants in this study are at secondary school level, the finding is consistent with the Chandler study implying that direct correction may be most effective for both short and long term improvements in language accuracy. As cited in both studies, this outcome may be inferred by the reason that internalizing of the correct form provided through the direct feedback occurs instantaneously and is retained over a period of time.

In an earlier study investigating learners' progress in writing revision of surface level errors, Robb et al. (1986) suggest that feedback explicitness does not bear much influence on the language accuracy improvement. All learners receiving corrective feedback at different levels of saliency seem to be able to revise correctly the writing tasks as a result of their attention being directed to the errors committed. Four groups that were clustered in the study received feedback in the forms of direct, indirect coded, indirect highlighted and marginal indication of the total number of errors per line, respectively. Truscott (1996; 2007) contends that the fourth group can be considered a control group because the information provided is too superficial to help learners make corrections. In addition, the fact that there is no significant difference in the performance of the learners in all treatment groups despite the distinctive feedback types has compelled Truscott to deduce that corrective feedback is unnecessary and ineffective in assisting learners to improve language accuracy. However, Robb et al. conclude that since results indicate that the different saliency levels of

corrective feedback seem to be equally successful in helping learners revise correctly, it may be sufficient to provide less detailed feedback that can trigger learners' attention that an error has occurred. In line with Truscott's (1996; 1999) proposal that focus should be put more on other aspects of writing development rather than correcting grammar errors, findings from the Robb et al study imply that by providing less salient corrections, teachers may be able to allot more attention and emphasis on other features in developing writing skills.

Clearly, a good number of studies have proven that the explicitness of corrections is not a conclusive issue in feedback practices. Nevertheless, it should be noted that studies cited in this discussion are methodologically incomparable taking in consideration aspects such as the treatment instruments and targeted linguistic features. It is also important to note that these studies are carried out on diverse learning environments and apart from determining the differential effects of direct and indirect feedback types, each study has its distinctive viewpoint investigating various aspects of the learning process. The highlighted differences in the findings imply that circumspection should always be rendered in making inferences. Bitchener & Ferris (2012) suggest that "a more finely tuned approach" is taken and to "move beyond...methodological criticisms" in discussing focused researches that are available in second language writing and acquisition (p.76). Furthermore, the incomparability of the studies' methodological aspects should also be taken into account in interpreting or synthesizing the findings so that the application of these feedback practices may actually benefit the learners from different learning backgrounds.

Working on the assumption that corrective feedback can have positive effects on improving learners' linguistic accuracy (Bitchener et al., 2005; Chandler, 2003; Elis et al., 2008; Sheen et al., 2009; Storch & Wigglesworth,

2010; Van Beuningen et al., 2012), the present study will seek to discover the differential effects of focused and unfocused corrective feedback given optimised conditions of the treatment. Factors to be considered include the effects of corrective feedback on new pieces of writing and the use of indirect feedback incorporating written and collaborative dialogue focusing on the occurrence of language-related episodes. As cited in a number of studies, the long term improvement, also termed as retention of accuracy by learners is a significant aspect of corrective feedback efficacy investigation (Bitchener & Ferris, 2012; Bitchener & Knoch, 2010; Chandler, 2003; Storch & Wigglesworth, 2010; Van Beuningen et al., 2008). The next section discusses the matter of uptake and retention reviewing studies that explore short and long terms corrective feedback efficacy.

2.3 Uptake and Retention

One of the primary concerns in corrective feedback research is that learners are able to take up the correction and eventually retain the accuracy in subsequent written tasks. Truscott (1996) is strongly against grammar correction because he claims that learners may not learn from the feedback provided and that improvement in language accuracy that may have been demonstrated is superficial. This condition termed as pseudolearning may seem to ring some truths given the circumstance that many learners, even after detailed and thorough corrections seem to repeat the same errors in writing tasks (Ferris, 1999; Lee, 2008a; 2013). This leads to the question of whether corrective feedback really helps learners to improve writing accuracy and retain that accuracy over a period of time.

One of the developments in second language writing pedagogy is the implementation of process writing, which requires learners to produce multiple drafts of a writing task. Parallel with this progress, corrective feedback studies have also been

conducted along the same line. Fathman & Whalley (1990) conducted a study that compared the effects of feedback given on content to corrections provided for grammar in process writing. Findings clearly demonstrated that only learners who received feedback on grammar were able to improve accuracy in revisions of the writing task and that regardless of whether they received feedback on content or not, significant improvement in content was demonstrated in the composition rewrites. Apparently, in revision process, uptake of the accurate use of corrected linguistic features may have been significantly gained.

Similarly, Ferris & Roberts (2001) investigated the relative effectiveness of feedback types in terms of the explicitness level. Participants in the study were required to self edit their written work after being provided with two feedback types. In this process writing tasks, learners who received corrective feedback regardless of the level of explicitness were able to successfully revise their work and reduce grammar errors in their rewrites compared to those who were not provided with any corrective feedback. Nevertheless, Ferris & Roberts acknowledge that even though feedback efficacy is apparent in the uptake of the corrections in editing stage, results from this study do not provide explanation for long term development and the retention of the accuracy gained in the revision process.

In order to substantiate the evidence of the ineffectiveness of grammar correction, Truscott & Hsu (2008) carried out a study investigating the effect of corrective feedback on learners' writing accuracy as opposed to learners who did not receive any feedback. Learners' narrative essays in the experimental group were provided with indirect corrective feedback in a form of simple underlining of the errors. Learners in the control did not receive any form of feedback. Analysis on the rewrites of both groups reveals that learners in the experimental group were able to revise significantly more accurately than those who were not provided with feedback.

However, a one-week gap subsequent narrative writing task that was completed by the participants shows no difference between the two groups performance. Thus, implying that successful uptake during the revision stage does not warrant retention in subsequent writing task even when the gap between the revision and the next writing task is only one week.

The claim made in a number of studies like Fathman & Whalley (1990) and Ferris & Roberts (2001) that error corrections in general help learners improve accuracy in writing development is disputed by the findings from this study. The point that Truscott & Hsu are trying to make is that encouraging findings from studies that only involve revisions in the data collection do not elucidate facts that learning has indeed occurred. On a stronger note they assert that studies that examine "independent writing task do not provide evidence on the value of error correction as a teaching device" (Truscott & Hsu, 2008, p.299). This contention further advocates Truscott's (1996; 1999; 2007) long standing argument against grammar corrections. Truscott has been consistently claiming that studies that investigate feedback efficacy on learners' uptake do not address the primary question of whether corrective feedback helps learners to write more accurately in future writing tasks and thus bears no indication that constructive learning has taken place.

In light of this argument, studies have been carried out taking into account the long term effects manifested over a period of time in subsequent writing tasks. A good number of studies on long term effect of the corrective feedback in helping learners write accurately have yielded findings implying that over a period of time, learners are able to retain accuracy when provided with corrections (Bitchener & Knoch, 2008a; 2009a; 2010; Chandler, 2003; Ferris, 2006; Van Beuningen et al., 2012). Ferris (2006) carried out a study with 92 ESL learners over a period of a semester deriving data from two three-stage-revision persuasive essay writing tasks. To account for uptake of the

feedback provided, data were analysed from the revision process from both sets of essay. The participants were able to self edit their writing based on the corrective feedback provided and thus contributing to the increase in accuracy of the essay's final revision. To address Truscott's contention, the learners' progress from the first essay to the fourth essay was analysed. When it concerns long term effect, results from the analysis suggest that learners progress at considerably varying degrees and that the different error types may have influenced the development and the retention of accuracy in subsequent writing tasks.

Chandler (2003) also investigated the relative effectiveness of feedback types over a semester involving revision and subsequent writing tasks. Even though all treatment groups receiving four different feedback types (direct, coded, underlined and marginal indication of total number or errors) increased in accuracy in the revised work, learners that received coded feedback and marginal indication were not able to retain the accuracy, in fact they committed more errors in the subsequent writing tasks. Thus, it is assumed that direct feedback being the most explicit form of corrections may have helped learners improve accuracy in writing both for short and long terms. However, simple underlining of the errors has also demonstrated effectiveness in uptake and retention of writing accuracy and this feedback can be considered as the least explicit in providing corrections to the learners. Chandler does not offer clear explanation on this matter of explicitness, but, it may be reasonable to deduce that in this case, as implied in the Ferris study, over a period of time and in subsequent writing tasks, individual variations and error types may have influenced the statistical data with regards to the uptake of accuracy by the learners in the study. Even though it is not fully justified by the fact that other groups receiving corrective feedback have indeed shown significant uptake and retention in writing accuracy, this finding partly relates to the argument put forth by Truscott (1996) that grammar correction may not just be ineffective but it can also be detrimental to the learners' language learning.

In order to extend the argument for feedback effectiveness, Bitchener & Knoch (2008b; 2009a; 2010) in three different studies prove that written corrective feedback may be able to help learners retain linguistic accuracy over a period of time and in new writing tasks. One of Truscott's (1996; 1999; 2007) argument is that studies that present findings of corrective feedback efficacy do not address the issue of helping learners write accurately in subsequent writing beyond revising the corrected written tasks. Specifically focusing on two functional uses of English articles Bitchener & Knoch carried out longitudinal studies investigating the effects of different written corrective feedback on learners' ability to retain accuracy in new written work. In order to investigate the relative effectiveness of three feedback types (direct correction with written metalinguistic input and 30 minute lesson, direct correction with written metalinguistic explanation, direct correction only), 144 participants in the Bitchener & Knoch (2008b) study were required to complete three writing tasks over a period of two months. Contrary to Truscott's argument that corrective feedback is ineffective and may not have lasting effects on learners ability to write accurately, in the Bitchener & Knoch (2008b) study, even with only one treatment session, learners were not only able to improve accuracy in the immediate posttest but also retained the accuracy in the delayed posttest. More importantly, evidence also points out that uptake and retention are demonstrated in new pieces of writing over a period of time.

Expanding the duration of investigation to a period of 10 months, the Bitchener & Knoch (2009a) study with 52 low intermediate ESL learners analysed five written work describing pictures of different social gatherings. Findings indicate that with only one treatment session of which the participants were provided with the three feedback types used in the Bitchener & Knoch (2008b) study, after 10 months, participants in the study seem to retain the accurate use of English articles gained after the treatment

provided for the first written task. In another similar study involving 63 advanced second language learners, Bicthener & Knoch (2010) have also proven similar deductions that corrective feedback is effective in the long run to help learners write accurately in subsequent writing tasks. The study that investigated the relative effectiveness of written metalinguistic, indirect corrections and written and oral metalinguistic explanation, spanned over a period of 10 weeks requiring the participants to complete three descriptive writing tasks. However, although all groups outperformed the control group in the immediate posttest, only participants that received direct corrections with metalinguistic input are able to retain accuracy after a period of 10 weeks.

The issue of learners' uptake and retention of linguistic accuracy in written work is incessantly discussed in feedback literature. Studies that have been conducted employing different feedback types seem to yield different results as described in the cited research above. Nevertheless, in the studies discussed earlier in this chapter a sound deduction can be made that learners need corrective feedback to increase in accuracy. The question of whether they are able to retain the accuracy over time however seems to depend very much on the feedback types and for this reason, inquiring data at individual level may be able to shed some light to the statistical results gathered from the quantitative investigation. This attempt to explore both quantitative and qualitative domains of the investigation relates to the theoretical framework that constructs the present study. The next section explains the conceptual framework of which the present study is grounded on.

2.4 Second Language Learning Theories and Corrective Feedback

There have been prevailing questions with regards to second language learning which drives researchers in the field to carry out studies in order to explore possible answers to these issues. Among others, questions on how learners can learn and acquire a second

language effectively, the factors that influence language learning development and the question on why can certain learners acquire language more effectively than others have caused the emergence of theories throughout the decades, such as the Monitor Model proposed by Krashen (1982).

2.4.1 Krashen's Input Hypothesis

Input Hypothesis is originally one of the five theories put forward by Krashen in his Monitor Model (Krashen, 1982; 1985) in his attempt to explain second language learning and acquisition processes. The Acquisition-Learning hypothesis differentiates between learning, which the "formal knowledge of a language" and acquisition that is described as the language competence that is subconsciously developed which is similar to children acquiring their first language. In order to explain individual differences in terms of learning and acquiring language, the second theory known as the Monitor Hypothesis proposed that "acquisition and learning are used in very specific ways" (Krashen, 1982, p. 15). This hypothesis differentiates three types of Monitor users. First is the "over-users", who appear to be hesitant and not fluent due to constant monitoring of their language output by checking "conscious knowledge of the second language". The second type is the "under-users" who "prefer not use their conscious knowledge" and finally, the "optimal users" who are able to use the conscious knowledge appropriate to the context of communication.

The Natural Order Hypothesis describes language as acquired in a "predictable order". Learners may acquire certain rules of the language earlier than other language rules. In relation to this Natural Order Hypothesis, central to the Monitor Model, Krashen proposed the Input Hypothesis suggesting that by following the natural order of acquisition, learners move from one stage to another by understanding the "language that contains structure that is a little

beyond where we are now" (Krashen, 1982, p. 21). It is the learner's move from the current second language competence i, to i + 1 with comprehensible input as the next step in the developmental sequence. This theory implies that there are no other factors that influence learning except for the input that the learners receive referred to as positive evidence (what is correct about the language use). Finally, the Affective Filter Hypothesis suggests that the level of acquisition depends on the learners' attitude towards the input that they received. Learners with a "high filter" may not be able to acquire language as effectively as those with a "low filter".

Since this Model emphasized mostly on the role of positive evidence as the input for learning as well as acquisition, it does not leave much space for corrective feedback as the negative evidence (what is wrong about the language use) in the process. As stated by Mitchell & Myles (2004), ideas described based on these five hypotheses have greatly influenced the field of second language learning. However, since empirical evidence to prove these claims are lacking, other scholars, such as Long (1980; 1983; 1985), moved to advance the theories from different perspectives.

2.4.2 Long's Interaction Hypothesis

Interaction Hypothesis revolved around "conversational management and language functions" in communication (Mitchell & Myles, 2004, p. 167). Gass & Selinker (2008) summarised interaction as an approach that "account for learning through input (exposure to language), production of language (output), and feedback that comes as a result of interaction. During interaction, learners try to increase comprehension by employing conversational tactics, such as repetitions, confirmation checks and comprehension checks. Studies employing similar conversational moves proposed by Long's Interaction Hypothesis have been

carried out to examine the effects of interactions on language acquisition (e.g., Loschky, 1994; Mackey, 1999). Findings from these studies seem to imply that interaction can be facilitative to second language development, which support the deduction by Long (1985) that "linguistic/ conversational adjustment promote acquisition" (as cited in Mitchell & Myles, 2004).

This Interaction Hypothesis was later reformulated which put more emphasis on the role of negotiation for meaning in enhancing learners' attention to the L2 uses. The theory also acknowledges the role of negative feedback attained through interactions in facilitating language learning development. However, since this theory was originally advanced from the Input Hypothesis it seems that the focus of the studies carried out within this theoretical framework is more inclined towards exploring the roles that input and specifically the interactions play in facilitating language learning development (e.g., Gass & Varonis, 1994; Loschky, 1994; Polio & Gass, 1998). In terms of the roles of feedback, studies carried out are inclined towards negotiation and recasts since, these two types of feedback are considered to be able to clearly demonstrate interactional moves and their effects on language learning development (e.g., Ammar & Spada, 2006; Goo, 2012; Long, Inagaki & Ortega, 1998; Mackey, 1999). In summary, Interaction Hypothesis exploits the interactional functions that occur by negotiating the input to relay intended meaning in ensuring meaningful communication taking place. Feedback, such as recasts may influence the effectiveness of interactions in the language learning development.

2.4.3 Swain's Output Hypothesis

Moving away from the Input and Interaction Hypotheses, Swain (1995; 2005) proposed that language output should not be viewed merely as practice session or an ends to the input and interaction processes. This claim materializes in an

attempt to explain the varied performance of students in the French immersion programs. Learners who were exposed to rich comprehensible input in the immersion program seem to not perform very well in written and spoken assessments. It was observed that these learners were not pushed to use the language as much in immersion classrooms nor were they pushed to use the language accurately and "sociolinguistically appropriate". This condition contends Krashen's claim that the only necessary element for second language learning is comprehensible input.

Tackling this issue from a different angle, Swain (2005) describes three functions that are essential in enhancing second language learning development. Noticing/ triggering function is theorized to direct learners' attention towards the gap that exist in their current linguistic knowledge. This happens when the learners realize that they may face difficulties in communicating their intent and that the language they produced is not target-like. A number of studies have been carried out to explore the relationship between output, noticing and language learning development (Hanaoka & Izumi, 2012; Izumi, 2002; Mackey, 2006; Swain & Lapkin, 1995; among others).

Secondly, the hypothesis function is like a 'trial run' for the learners to reflect on their intent in written or spoken form. Learners need to test their language hypothesis following the feedback that they receive in order for them to change their subsequent language output. More recent studies have attempted to relate between the production of modified output and the second language learning development (e.g., McDonough, 2001; Loewen, 2002; Storch & Wigglesworth, 2010).

Finally, metalinguistic function serves as the stage where learners "reflect on language produced by others or the self" leading to second language learning.

Viewed within the sociocultural theory framework, learners' processing and reflecting on the language production take place during collaborative tasks. In other words, collaborative dialogues, of which reflections may occur, facilitate "solving linguistic problems and building knowledge about language. In an attempt to examine the possibilities of metalinguistic reflections enhancing second language learning, studies have been carried out exploring relationship between collaborative tasks and language learning (e.g., Nassaji, 2007; Nassaji & Tian, 2010; Shehadeh, 2011; Swain & Lapkin, 1998; 2002). Output hypothesis emphasizes on the active roles that learners play in the learning process. Corrective feedback is implied to have an effect when learners are actively engaged in the three functions described within the framework of Output Hypothesis.

In the present study, the negative evidence is the two indirect CF types (focused and unfocused) provided to the learners' written work. The treatment, which includes the written task, written corrective feedback and collaborative dialogue that the participants were required to complete was constructed based on previous empirical studies and primarily guided by the Output Hypothesis as the theoretical framework of the present study. Detailed explanation of this grounding conceptual framework and its relation to the research questions addressed in the current is discussed in the following sections.

2.5 Theoretical Framework of the Present Study

The study is guided by the framework that is founded on Swain's (1995; 2000; 2005) Output Hypothesis and negative evidence that may assist in the attempt to explore and eventually reveal the factors influencing uptake and retention of language accuracy. At the heart of the framework is the Output Hypothesis (Swain, 1995; 2000; 2005) with its three functions, namely noticing, hypothesis testing and metalinguistics. Supporting this

core is the negative evidence provided in the forms of indirect focused and indirect unfocused feedback which leads to collaborative dialogue of which language-related episodes may occur. The conceptual framework of the present study is illustrated in Figure 2.5 below.

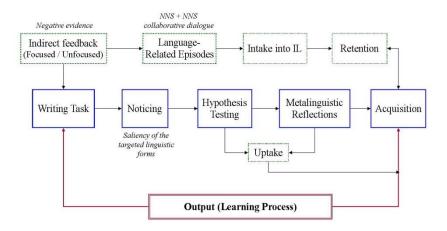


Figure 2.5: Conceptual Framework

The explanation in this part will illustrate how the mentioned key components relate to each other by referring to Figure 2.5. The flow of the description will start with the core of the framework, which is the Output Hypothesis, and move on to the other components and how they relate to Output Hypothesis.

2.5.1 Output Hypothesis and Negative Evidence as The framework

Swain (1995; 2000; 2005) states that learners need to produce the language in order to discover the real potential of learning that takes place. This theory contends Krashen's (1982; 1985) Input Hypothesis of which the production or language output is an end to the acquisition process. Swain, however, believes that output is the extension of the whole learning process. An important role of output is to push "learners to process language more deeply – with more mental effort – than does input" (Swain, 1995). The key concept in this hypothesis is that learners are actively engaged in the process of language learning. As

illustrated in Figure 2.5, the core component of the framework is the Output Hypothesis. One of the advantages of this theory is that Output Hypothesis is proven for its practicality to actively engage learners in the learning process. The notion of this functionality goes beyond a mere practice of producing language either in spoken or written form. Output provides learners with opportunities to use the language while progressing in the course of its acquisition. Swain (1995; 2000; 2005) outlines this progression by proposing three functions that learner output serves: noticing, hypothesis testing and metalinguistics.

Ellis (1994) asserts that acquisition occurs when noticing of certain linguistic forms takes place in a language production, orally or in written work. Noticing is important because it provides learners with the information of the "gap" in their interlanguage system as compared to the target language. As put forward by Schmidt (1990; 1994; 2001), noticing is one of the important phases towards the acquisition of a language. Noticing as defined by Schmidt is the stage of which the learners pay a certain amount of attention to the gap in the language production, for example being aware of certain words that are wrongly spelt. Output Hypothesis promotes this concept of noticing by providing opportunities for learners to produce language and become aware of the limitations and the gaps that exist in their interlanguage system. According to Swain (2000) noticing may occur if the gap is made sufficiently salient to the learners (Swain, 2000, p.100) as indicated in Figure 2.5 where the feedback is made appropriately salient by the providing indirect focused or unfocused corrective feedback to the learners' written work.

Conceptually, this is the stage where the negative evidence comes into the picture. Chomsky (1980) who claims in his theory of Universal Grammar that every human being is born with the device innately present in the mind to acquire language believes that acquisition is gained through experiencing positive evidence. Children acquire language by encounters with positive evidence, or what is defined as grammatical language production that a child hears and observes in the speech of others. However, positive evidence alone cannot sufficiently explain why some grammar elements that are not present through this evidence are also acquired by the learners. Thus, giving more merit to the belief that the innate ability as structured in universal grammar may be the explanation to such acquisition of the first language. This assumption is extended into the second language acquisition and a pertinent question that has been asked is whether the same Universal Grammar rules apply to the process of second language acquisition. Some scholars in the field discuss Universal Grammar and its role in second language acquisition putting forth the more important role of negative evidence (Gass, 2005; Gass & Selinker, 2008; Gregg, 2005; White, 2003; 2005).

Negative evidence that is described as an indication informing a learner of what is not grammatical about the language produced can be in a form of implicit and explicit evidence. An example of negative evidence in child acquisition is when a child's speech is corrected by the parents. However, White (2003) claims that negative evidence in the child's first language acquisition is not dependable nor it is consistently available. In second language learning on the other hand, negative evidence is frequently available and it plays a significant role in the learning development.

A number of researchers believe that negative evidence provided in a form of corrective feedback provides the information that the learners need about the target language features that are different from their interlanguage system, when "exposure to comprehensible input" is not sufficient (Panova & Lyster, 2002; Rutherford & Sharwood Smith, 1988; White; 1987). The corrective feedback provided for the written work will lead their attention to the gaps that exist in their written output. Leeman (2003) states that the targeted linguistic features that are made salient may enhance second language acquisition since it promotes noticing of forms (Philps, 2003). Qi & Lapkin (2001) categorised noticing into two types: (1) Perfunctory, that is when learners notice that their language production is erroneous but are not able to provide reasons; (2) Substantive, that is when learners noticed the non target-like production and they are able to provide reasons for the inaccuracies. In the Qi & Lapkin study, learners who demonstrated substantive noticing seem to be able to produce a more accurate subsequent written work. This indicates that the quality of noticing is crucial in enhancing the efficacy of corrective feedback and written work.

Panova & Lyster (2002) citing a study by Schmidt & Frota (1986) mention that deliberation on the gaps in the learners written output may lead to "cognitive comparison" to the target language, thus reconstruction of interlanguage system may take place given "sufficiently salient" corrective feedback. The question is how salient should it be made to the learners of the gaps in their language output. The proposed study incorporates indirect corrective feedback due to the implicit nature of the feedback. One of the main advantages of Output Hypothesis is the opportunity to use the language and be actively involved in the learning process. So, indirect corrective feedback corresponds to this feature where enough cue is provided to make the errors salient for the learners to "notice" and pay attention to, but leaving adequate space for them to deliberate and reflect on the information in the next phase of the process as shown in Figure 2.5.

Learners are further engaged in the learning process by testing their hypothesis on the actual function of certain linguistic forms. This process involves learners producing modified output and "stretching" their interlanguage system to find out the target-like use of the linguistic form in question. When the gaps are noted, the learners will engage in the language-related episodes (LREs) occurring in collaborative dialogue. At this stage, learners will test their hypotheses of the targeted forms based on the corrective feedback provided. This stage is significant because this is where learners, as implied by Ferris (2002), will be most encouraged to be involved in "deeper internal processing" and enhance the intake of the targeted linguistic forms into their interlanguage system. Chandler (2003) also has asserted that attention must be given to the CF and there should be 'engagement with [the] feedback' to enhance uptake and retention (Lee, 2013). In addition, as Storch & Wigglesworth (2010) and Qi & Lapkin (2001) assert that the more extensive the engagement in the LREs is, the greater the uptake and retention are of the linguistic forms discussed. Therefore, the "right" amount of information provided in the indirect feedback corresponds to the condition that is most conducive for this process to occur effectively.

This leads to the third function of output, that is, the reflection on the learner's metalinguistic knowledge. The resolution of the tests and the reflection of the learner's linguistic knowledge will be the formation of a new or enhanced linguistic acquisition as well as the realization of the gap that exists in the learner's interlanguage sytem. Figure 2.5 shows that the non native speakers – non native speakers (NNS-NNS) collaborative dialogue is one of the significant methodological tools in exploring the operationalisation of the Output Hypothesis as the framework in the present study. Swain (2000) states that the engagement of interlocutors having a more or less similar proficiency level in

"problem solving" and "knowledge building" enhances the exploration by "stretching" their interlanguage.

Since both learners are non-native speakers, the possibility of them resolving the linguistic errors incorrectly does exist. In this case, the negative evidence in the form of corrective feedback given plays a very important role in guiding the learners to note the gap and test hypothesis so that the chance of correctly resolving the errors is greater. The outcome of this hypothesis testing will eventually lead to the next phase of the framework, which is the internalisation of metalinguistic knowledge. In fact, the flow from this phase to hypothesis-testing phase can be bi-directional due to its reflective role. The internalization of metalinguistic knowledge may also be manifested through the collaborative dialogue where learners will focus their attention to certain linguistic features. Given enough cue to reflect on, in addition to the extent of the engagement in the LREs which increases uptake and retention, the effectiveness in building metalinguistic knowledge and acquisition of the language may be enhanced.

As described in the earlier section, Krashen (1982) relates that acquisition is a "subconscious process" and that it is a "natural learning". On the other hand, learning is described as a formal means to know about the rules or grammar of a language. In the context of the present study, learning is considered to take place when learners show uptake of the CF provided for the targeted linguistic forms in their written work as statistically measured using the scores in the immediate posttest as well as the analysis of the LREs occurring during the collaborative dialogue. Acquisition is the long term effect of the treatment that the learners receive. When learners demonstrated retention of the accurate use of the targeted linguistic forms in the delayed posttest after a six-week interval, it is considered

that acquisition has taken place. In the context of the present study, the six-week interval is equivalent to the inter-semester break that students have before they start a new semester. Thus, it can be considered as the duration where learner do not attend classes and similar to moving on to subsequent semester in their academic calendar. This stage is the most important stage in determining the efficacy of the treatment provided for the learners which includes two CF types (focused and unfocused) and the collaborative dialogue requiring them to deliberate over the CF that they received.

The next section will include explanation on the qualitative inquiry derived from the collaborative dialogue and interviews that may contribute to the framework in the form of learners' perspectives on the feedback efficacy.

2.6 Learners' Perspectives

With the belief that learners should have a more active role in the feedback practices, a number of studies have been conducted to investigate learners' viewpoint on corrective feedback (Hyland, 1998; Hyland & Hyland, 2006b; Lee, 2004; 2008b; Leki, 1991; 2006). Data are collected to explore how learners perceive corrective feedback in helping them improve writing skills (Ferris, 1995; Hyland, 1998; Lee, 2008b; 2013), their preferences, expectations and beliefs on the teachers' error feedback (Ferris, 2003; Hyland & Hyland, 2006a; 2006b; 2006c; Lee, 2004; 2008a; 2008b; 2013; Leki, 2006). These studies, while providing insight to the learners' needs and roles in engaging active participation in the feedback process, they do not seem to actually delve into matters that practically deal with what learners actually do with the error feedback that they receive during the correction stage. It may help teachers to understand and strategise feedback process more effectively if there is information available for instance, on the strategies that learners use to approach feedback, the kind of errors that they do or do not attend to and how they actually use the feedback in making the

corrections. White (2003) acknowledges the importance of examining data based on individual performance because depending solely on statistical figures derived from group scores may not be able to provide accurate interpretation in addressing grammar proficiency of diverse learners. This matter apparently relates to the data collection method employed in the studies conducted.

2.6.1 Collaborative Dialogues in the Learning Process

Swain & Lapkin (1995) discuss an approach that actively involves learners in maneuvering over the form and meaning of the language learnt, known as languagerelated episodes (LREs). This concept is defined as parts of the discourse where students talk about the language they are producing, question their language use or correct themselves or others" (Swain & Lapkin, 1995). A number of studies that involve LREs as part of the data collection have been conducted of which the collaborative dialogues are recorded and transcribed for analysis (Nassaji & Jun Tian, 2010; Sato & Ballinger, 2012; Lapkin, Swain & Smith, 2002; Swain & Lapkin, 1998; 2002; Storch & Aldosari, 2013; Storch & Wigglesworth, 2010). Discussions on findings are derived from inferences made of the LREs coding based on certain guidelines that indicate second language learning development. The LREs analysed in such studies can be of various length, extent and serving different functions. Storch & Wigglesworth's (2010) study looks at the extent of LREs that occur in pair talks and how this extent influences uptake and retention of language features negotiated in the collaborative dialogue. Data are analysed and interpreted microgenetically as grounded in the zone of proximal development under the social cultural theory. Lapkin, Swain & Smith (2002) and Swain & Lapkin (1998) employ similar tasks involving written and oral collaborative interaction in filling out information on a jigsaw based on eight pictures. Analysing the LREs for both lexical and grammatical features of language produced in the

collaborative tasks, these studies also obtain the data from the stimulate recall and interview in order to explore the findings from the learners' point of view.

Besides examining collaborative dialogues, other studies that analyse LRE data employ think-aloud task to examine various language features (Sachs & Polio, 2007; Swain & Lapkin, 1995; Qi & Lapkin, 2001). Qi & Lapkin (2001) carried out a study that analyses LREs occurrence from think-aloud protocols to explore the relationship between noticing and language development in written work. The study required participants to compose a narrative writing and then based on the feedback given in a form of reformulation, the participants revised their written work. The participants verbalised their thoughts to be video and audio recorded for analysis of LREs specifically examining the occurrence of noticing in all three stages of the treatment process. In order to examine the influence of think-aloud task on the accuracy gain in written work, Sachs & Polio (2007) conducted a study comparing the relative effects of direct correction, reformulation and reformulation with think-aloud task. Findings reveal that due to visual saliency of direct corrections, learners appear to be more successful in making corrections and to write more accurately in subsequent tasks. Another reason that may explain the lack of effectiveness of reformulation and thinkaloud tasks is that since attention is also focused on verbalizing their thoughts, the main task of correcting language errors may have been impeded to some extent. Nevertheless, similar to Qi & Lapkin (2001), since the analysis of data derived from think-aloud method is highly inferential, conclusions should be made with caution and further studies that can provide greater insight on this issue are expected. It is however reasonable to state that the functions LREs serve in any investigations relate to the types of corrective feedback provided in the learning process.

More recently, although still limited in number, emerging studies employing languaging as the means to examine learners' processing of the language concepts

(Swain, Lapkin, Knouzi, Suzuki & Brooks, 2012) and written language in revising corrective feedback (Suzuki, 2012) have demonstrated the effectiveness of these languaging practices in facilitating learning development.

Finally, contributing to the framework of the present study, the interview conducted may provide the information needed to link between the process of language output and acquisition. Factors that influence uptake and retention are explored from the learners' perspective directly. Mitchell & Myles (2004) assert that research in SLA still lacks the evidence on the learners' extent of attention and interpretation of the feedback provided for their language output. Researchers like Storch & Wigglesworth (2010) and Sachs & Polio (2007) state that interpreting codes of the LREs engagement for analysis is a "highly inferential process" and the deduction from this kind of analysis "may not reflect the depth of cognitive processing". In other words, although the elicited feedback processing in the LREs may indicate to a certain extent the progression that takes place in the learning process, the learners' actual perception and attitude towards the feedback may not be made apparent.

SLA researchers acknowledge the importance of learners' perspective on the issue of corrective feedback (Hyland, 1998; Hyland & Hyland, 200c6; Lee, 2004; Leki, 1991; 2006). This is especially true if the aim of the investigation is to discover the ways and means feedback can be made effective by considering how learners respond and make use of the feedback provided. Most studies to date approach the investigation by looking at the students' perspective focusing largely on the affective factors, such as students' expectations and preferences of the feedback provided by the teachers (Ferris, 1995; Hyland, 1998; Hyland & Hyland, 2006b; Lee, 2004; 2013; Leki, 2006, Storch & Wigglesworth, 2010). This however, does not really show how the effects of feedback relate to language acquisition in a practical sense. Shehadeh (2002) claims that empirical data to link between the learners' language output and the acquisition are still

lacking. Braidi (1995) also believes that the learners' development should be traced so that the actual process that leads to acquisition can be made evident. Thus, in addition to the LREs analysis occurring in the collaborative dialogue, the present study employs qualitative interview to acquire data that can provide better picture of the practical aspects of feedback efficacy from the learners' point of view. This inquiry is a means to explore the factors and aspects of the treatment process that may have influenced the results as manifested in the participants' performance.

Even though interview data may not be generalised to other context due to its nature of inquiry method, the findings that are gathered from this inquiry may provide some basis from the learners' perspective for the link that connects between the language output and the acquisition of the targeted linguistic forms. Conceptually, by getting into the mind of the participants, it should shed some light into the processes that take place from the output right to the acquisition. The findings from this study may contribute to the theory by presenting the link that can delineate issues to be considered in selecting effective feedback types and the tasks involved in the LREs engagement to enhance uptake and retention, hence acquisition of the language.

Chapter Summary

This chapter discusses the issues of feedback roles and efficacy, reviewing related empirical studies on written corrective feedback. The theoretical framework presented towards the end of the chapter places the foundation of the present study of which research questions and hypothesis presented in Chapter 1 were constructed. The next chapter presents the research method testing the hypothesis and addressing the research questions formulated in the current study.

CHAPTER THREE

METHODOLOGY

3.0 Overview

There have been decades of debates on the role of corrective feedback in language learning. Despite a good number of studies conducted, room for further research and improvisions still exist in relation to practical classroom settings. Drawing on the common classroom practices in providing feedback to the learners, Ellis et al. (2008) and Sheen et al. (2009) have chosen to compare unfocused corrective feedback to the currently proclaimed effective type that is the focused corrective feedback (e.g., Bitchener & Knoch, 2008a; 2010). However, findings from these studies may be rendered as rather inconclusive since results of these studies differ and the effectiveness of the feedback is undetermined. The purpose of the present study is to improve on the design of the previous research and expand the insights on the effects of unfocused and focused corrective feedback focusing on the uptake and retention of subject-verb agreement, prepositions and articles in an ESL context.

The design and procedures of the study will be outlined in this chapter, which is then followed by the description of data analysis, research context, treatment instruments, testing instruments, and scoring procedures. This chapter also describes the qualitative inquiry in data collection and interpretation, which includes analysis of language-related episodes (LREs) and the interview.

3.1 Research Design and Procedure

Regardless of the slight differences in the findings of the studies by Ellis et al. (2008) and Sheen et al. (2009), they contribute to the notion that corrective feedback is helpful in improving learners' linguistic accuracy in written work. However, these studies do

not deal with information that can be revealed through qualitative inquiries. In a different study, Storch & Wigglesworth (2010) attempt to qualitatively investigate the effects of direct and indirect corrective feedback in the thorough analysis of pair talks in determining factors that influence uptake and retention. Since these studies are methodically incomparable, the findings cannot be considered as a definite indication to determine if one type of corrective feedback is more effective than the other. The present study attempted to incorporate the methods by employing both quantitative data gathered from a pretest and two posttests as well as from qualitative investigations which included analysis of LREs and interviews to study the differential effects of indirect focused and indirect unfocused feedback on the accurate use of three linguistic forms in learners' written work. Data were gathered to determine the level of uptake and retention from the feedback on subject-verb agreement (SVA), prepositions and articles provided in a form of written corrections and enhanced by engagements in language-related episodes that occurred during the pair talk sessions.

3.1.1 Research Design

With the purpose of investigating the differential effects of two corrective feedback types on learners' accurate use of the three targeted linguistic forms (SVA, prepositions and articles), the study employed a quasi-experimental design grounded on Swain's (1995; 2005) output hypothesis. In addition, findings from this study are presented as a further attempt to address the controversial issues of feedback efficacy on the development of language learning.

This three-level between-subject and within-subject variables quasiexperimental investigations were constructed to compare the efficacy of indirect unfocused and indirect focused corrective feedback on the uptake and retention of subject-verb agreement, prepositions and articles of ESL learners. The three intact classes comprising 90 students were randomly assigned to the three levels of treatment conditions: the indirect unfocused (n=30), indirect focused (n=30) and the control group (n=30). Care was taken that these classes were assigned randomly into these three groups of which each group had an equal chance to be in any treatment condition.

The participants' initial level of performance in the use of the three targeted linguistic forms was measured by the written pretest administered in week 2. The level of uptake and retention of the forms was assessed through the immediate posttest and delayed posttest after two treatment sessions. Figure 3.1.1.1 below illustrates the quasi-experimental research design carried out in 12 weeks of one semester's instructions.

Group	Pre-test	Treatment	Immediate Posttest	Delayed Posttest
G_1	O_1	X_{1a} X_{2a}	O_2	O_3
G_2	O_1	X_{1b} X_{2b}	O_2	O_3
G_3	O_1	-	O_2	O_3
	Week 2	Weeks 3 - 5	Week 5	Week 12

Note: Type of feedback (independent variable):

Figure 3.1.1.1: Quasi experimental Pretest-Treatment-Posttests Design

This quantitative component of the study involved 90 participants who were divided into two treatment groups and a control group in which they spent 30 minutes for each written test, which were the pretest, immediate posttest and delayed posttest. The first treatment group was labeled as the indirect focused group (G_1) and the second treatment group received the indirect unfocused feedback (G_2) . The control group (G_3) took the three tests and completed two writing tasks but was not provided with any corrective feedback.

 $X_{1a} & X_{2a}$ Indirect focused corrective feedback and pair talk;

 X_{1b} & X_{2b} Indirect unfocused corrective feedback and pair talk;

⁻ No corrective feedback, no pair talk

The study comprised three phases employing mixed method approach. The quantitative domain of the study was elicited from the pretest and two posttests, which consisted of immediate and delayed posttests. The Language-Related Episodes (LREs) which contributed to the qualitative inquiry were integrated during this quantitative segment. LREs were the data derived from the pair talk of the participants, discussing the feedback given to their written work. Further details on this component are provided in the Treatment Instruments and Procedure (3.3) section. Finally, at the end of this phase, selected participants were interviewed to gather information on the factors that affect their performance on the accurate (or inaccurate) use of the targeted linguistic forms. Figure 3.1.1.2 below is the flowchart illustrating the complete research design and procedure.

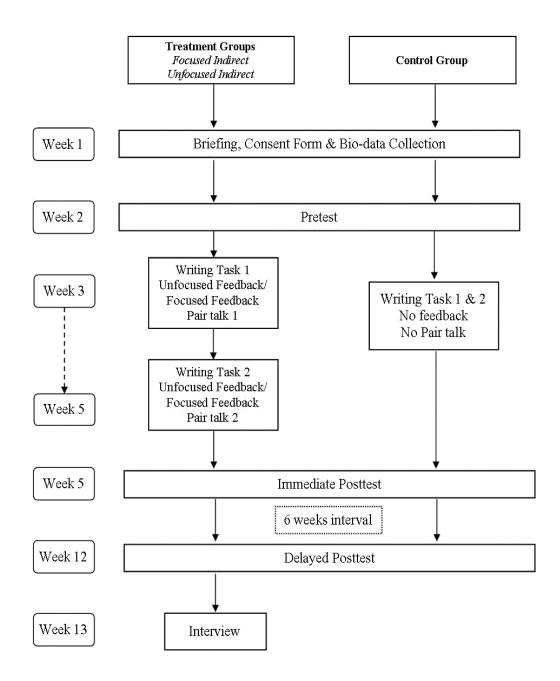


Figure 3.1.1.2: Research Design and Procedure

3.1.2 Research procedure

This mixed method study was carried out with ESL learners at a university in the east coast of Malaysia in the first semester of 2011/2012 academic session. The participants that were randomly assigned to the two treatment groups and a control group were briefed on the research that was going to be conducted by explaining the purpose and the procedures of the study and the parts that they would be directly involved in. Consent forms were given to the participants to sign during this briefing session and bio-data of these participants were collected. The treatment then began in week 2 with all the participants taking the pretest that required them to write a 200-word description of a graph.

From week 3 to week 5, participants in the treatment groups performed two cycles of writing tasks and pair talks. Each written task that lasted for 30 minutes was designed to elicit the use of SVA, prepositions and articles and the pair talk functioned as the means for the participants to focus on the forms highlighted by the written feedback provided. This component of the treatment was part of the learning process where the three functions in the output hypothesis (noticing, hypothesis testing and metalinguistic) may come to an effect. The first treatment group was provided with indirect corrective feedback focusing only on the three targeted linguistic forms - SVA, prepositions and articles. In order to compare the efficacy of the two types of feedback, the second treatment group was provided with the indirect unfocused corrective feedback (See Appendix A for samples). Apart from the three targeted linguistic forms, feedback was given on other linguistic features in a form of symbols that were adapted from Azar's (1992) guide for correcting writing errors (See Appendix B). The pair talks that lasted for approximately 30 to 45 minutes were recorded for transcriptions and analysis. Storch & Wigglesworth's (2010) guidelines for LRE analysis were adapted to categorise the occurrence of the LREs in the pair talks (Refer to section 3.4.3 for details on the LREs coding procedures). Adaptation was done to ascertain that the analysis was to establish findings that are grounded on Swain's (1995; 2005) output hypothesis. The control group completed the two writings tasks and was given general comments for the written work, such as 'good work' or 'well written'. Details of the treatment procedures will be explained in the following sections.

A pilot study was conducted prior to the present research with participants having similar criteria with those involved in the study. All the treatment sessions and testing instruments were tested together with the interview after the delayed posttest. Based on the outcomes of the pilot study, revisions and minor changes were made to the testing instruments, scoring procedures and interview guide questions. The main difference between focused and unfocussed group is the comprehensiveness of the feedback provided to the learners' written work. Focused group should receive intensive feedback focusing on only targeted linguistic forms, whereas, unfocused group should receive extensive feedback covering other linguistic items apart from the targeted forms. In order to differentiate between the feedback provided for the students' written work in the unfocused group and the CF provided for the focused group, the researcher decided to adapt the editing symbols form Azar's guide for correcting writing errors. The guides consisted of 13 items as compared to the original written feedback editing symbol provided for the unfocussed group which only covered five items. In addition, refinements were made to the scoring procedures in relation to the conditions of inappropriate use of the three linguistic forms in the written work derived mainly from the pretest and the first written task. For instance, in the pilot study, one of the most common errors

committed by the participants was overusing the verbs in a sentence, for example,

The students are like to use SMS as the means of communication.

In the original list of inappropriate uses of SVA, this type of error was not included for scoring the participants' written work. After the pilot study was completed, this was one of the refinements made to the scoring procedures of the present study.

3.2 Data Analysis

The present study involved three treatment condition groups and for the purpose of deriving inferential statistical data, Analysis of Variance (ANOVA) procedure was used. Similar procedures were carried out for the analysis of data in the Bitchener et al. (2005) study in determining the efficacy of feedback types on the accurate use of prepositions, past simple tense and definite article. For the within-subject comparison, there were two combinations of levels which were (1) three levels of linguistic forms (SVA, prepositions and articles), and (2) three levels of test time (pretest, immediate and delayed posttests). Furthermore, there was a between-subject comparison, which was the three-level CF conditions (focused indirect, unfocused indirect and control group). The percentages of accuracy performance as quantitative variables were measured for each combination described above.

A Two-way ANOVA was performed to verify if there was an interaction between the pretest scores of the three treatment groups (Focused, Unfocused, Control) and the three targeted linguistic forms (SVA, Prepositions, Articles) in the current study. This procedure was carried out to eliminate any forms of inclinations in the

linguistic ability of the participants in the three treatment conditions to the choice of targeted linguistic forms.

Research questions 1 and 2 of the present study attempted to determine the extent of the feedback efficacy in influencing the accurate use of SVA, prepositions and articles in learners' written work over a period of time. To establish whether there were significant longitudinal gains in the scores of the three targeted linguistic forms of the three groups, a two-way repeated-measures ANOVA was performed. The independent variables in each of these tests were the test times (pretest, immediate posttest and delayed posttest) and the three linguistic forms, while the dependent variables are the scores of the targeted linguistic forms used in the three test times.

The third research question of the present study was to ascertain if there was any significant difference in the effect of indirect focused corrective feedback and indirect unfocused corrective feedback on the accurate use of subject-verb agreement, prepositions and articles in written work. To examine the difference across the groups' scores over three test times, a two-way repeated-measures ANOVA was carried out with the three targeted linguistic forms. The scores of the accurate use of these forms in the pretest, immediate posttest and delayed posttest were the dependent variables. The independent variables of these series of measurements were the test times (pretest, immediate posttest, delayed posttest) and the treatment conditions (indirect focused, indirect unfocussed, control). In light of the findings gathered from these measurements, Post hoc comparisons using Bonferroni test were calculated to identify the source of significance since the Bonferroni method is suggested to be the most appropriate test to use in order to control for type 1 error when testing a small of number of comparisons (Fields, 2009).

The next section discusses the research context, the setting, participants, operationalisations of feedback types and the focused linguistic features of the present study.

3.3 Research Context

The study was carried out in an ESL context at a university in the east coast of Malaysia commencing September 2011 until December 2011. The university where the study took place is a public university focusing on engineering and technology. Data collection was conducted with second year engineering students from three different academic programmes, which were the chemical engineering, mechanical engineering and project management. All students in this university have to go through four levels of English language proficiency courses which are taught by instructors from the Centre for Modern Languages and Human Sciences. This centre offers proficiency language courses and provides instructors of English language to all faculties in the university.

Students are assigned to the English language classes by the Academic Management Office according to their programmes, semester and year of study, consisting of 30 students each group. Participants in the present study were enrolled in the fourth level of the language proficiency courses of which, the focus was on reading skills. The course runs for 14 weeks in a semester with 4 contact hours per week. The first three levels of proficiency courses focus on writing and speaking skills. All these proficiency courses are based on 100% formal assessment with no final examination at the end of the semester. They have to accumulate at least 40 marks by the end of the semester, which is equivalent to a D-grade, to pass each of these courses. Contributing 8 credit hours to the students' academic graduation fulfillment, these four-level proficiency courses are compulsory university requirements that all students have to complete within the first 4 semesters of their academic calendar.

3.3.1 Participants

This study involved 90 second year undergraduates from a higher learning institution, majoring in engineering programmes. All participants were ESL learners who had completed approximately 13 years of English language lessons in primary and secondary schools. These participants had also completed three levels of English proficiency courses in their first three semesters in the university. For the most part, the type of feedback that these participants had been exposed to was mostly unfocused corrective feedback of which they would generally be commented on the content, language use, word choice, mechanics, and if it is speaking skill, delivery will also be part of the feedback.

One month prior to the beginning of semester 1 session 2011/2012, the researcher was assigned with the groups to teach. Before the first meeting with the participants, the researcher designated these groups into their treatment conditions. During the first meeting, all 90 participants were briefed orally and in written form on the study to be conducted and the consent forms were given to the participants to sign (See Appendix C for Information Sheet and Consent Form). Since the data collection was conducted outside the class hours, and that the treatment given was not relevant to the course the students were doing, the researcher put an emphasis on the fact that the study has no bearing on the assessment of the students' performance in the course.

Each of the three classes assigned to the researcher consisted of 30 students and all students were involved as the participants in the study. Due to the fact that most participants have a very similar exposure to the formal English language learning and a very small age range, the participants can be considered demographically homogeneous. Going through the same education system in Malaysia, the participants have had an average of 13 to 14 years of formal

English language lesson, with 13.83 average years of experience in total. For most of the participants, formal lesson started in kindergarten at the age of 6 years old, another six years in primary school and five years in secondary school. The only difference is that some of the students did their diploma course at the age of 18 until 21, while others were enrolled into a pre-university foundation course for a year and started their degree at the age of 19. Some Diploma graduates continue to the degree level and by the time they reached the second year, they have had one year of English language lesson more than those who did their degree after matriculation level.

The ages of the participants ranged from 20 to 21, with an average of 20.17 in each group. By this age, most participants have managed to write complex sentence constructions with functional knowledge of grammatical and syntactical structures. Despite inaccuracy in the sentence constructions, specifically in the graph description as used in the treatment, most participants were able the convey meaning in their written work, enabling elicitation of the focused linguistic forms to be evaluated and analysed in the present study. Even though the participants consist of three different races of which 56 of them are Malay, 22 Chinese and 12 Indian, English is their second language. Female participants slightly outnumbered male participants at 49 and 41 respectively. Table 3.3.1 presents the bio-information of the participating students.

Table 3.3.1: Bio-information of the Participants

C	Corrective feedback type	No of participants	Gender		Average	Average years of formal
Groups			Male	Female	age	English language lesson
1	Focused Indirect	30	13	17	20	13.5
2	Unfocused Indirect	30	14	16	20	14
3	Control	30	14	16	20.5	14
TOTAL		90	41	49	20.17	13.83

The class size was the same for all classes with 30 students in each group because of the open registration system employed for English language classes at the university. Each class was available for the students to register until it reached 30, then the class would be closed for registration and students would have to choose other available section to register. Three groups were then randomly assigned to the treatment conditions: one focused group (n = 30), one unfocused group (n = 30), and one control group (n = 30). Since the participants were taken from intact classes, the tests, treatments and interview were easy to arrange and the attendance of the participants was not a problem. Therefore, a complete data set was successfully gathered for the study.

3.3.2 Operationalisations of Feedback Types

The study operationalised two feedback types of which the definitions are based on Ellis's (2009) typology of written corrective feedback. The followings are the descriptions and examples of these operationalisations employed in the present study:

Indirect feedback is the written corrective feedback given to the learners' written work by indicating that an error has been committed, but the correction is not provided. For the purpose of this study, each error was underlined and indicated by designated symbols indicating the types of error committed. The present study combined the indirect feedback type with two distinct correction types, which were focused and unfocused. According to Ellis, focused feedback is an intensive type of correction of which the specific selection of the linguistic forms is made when corrective feedback is provided. For example:

SVA

The users prefers at use a Mozilla web browsers

Even though there are other errors in the sentence, focused feedback as operationalised in the present study was only to be provided for the selected linguistic forms. In the example, the selected error is subject-verb agreement, of which the part where the error is committed is underlined and indicted by the symbol SVA to inform the learner of the type of error.

As opposed to focused feedback, unfocused feedback is "extensive" and the teacher attempts to correct all errors committed in the written work. Most of the time, feedback is provided for a wide range of writing components which may include on top of linguistic features, vocabulary, content, mechanics and organization. The present study employed indirect unfocused feedback, which provided feedback for linguistic features, word choice and mechanics. Content and organization of the written work were not included in the feedback. The feedback symbols were adapted from Azar's (1992) guide for correcting writing errors. Below is the example of the indirect unfocused feedback:

SVA P A SP M/S The <u>users prefers</u> at use a <u>Mozilla web brousers</u>

Apart from SVA, feedback on preposition (P), article (A), singular/plural(SP) and spelling (M/S) are also provided for the sentence in the example. The feedback is more comprehensive and learners are provided with a much extensive range of corrections for their written work. Since both focused and unfocused feedback were operationalised as indirect feedback, learners were provided with only the indication of the errors committed by underlining the selected parts and informing the types of errors committed. The correct forms however, were not provided with the feedback.

3.3.3 Focused Linguistic Features

The choice of the targeted linguistic forms in the present study was guided by three sources of reference. The first source came from the students' writing samples of the graphic prompt descriptions. When the students were doing level three of the English language courses, they were required to write an academic report writing. One of the components that they had to produce was the 200-word graph descriptions. 100 paragraphs of these descriptions were gathered and analysed for the occurrence of the most frequent linguistic errors. From these samples, it was deducted that the most frequent errors committed, among others are prepositions, subject-verb agreement, articles, plurality and tenses. Table 3.3.3 shows the number and percentage of the most frequent error types derived from 100 samples of students' written work taken from the previous semester.

Table 3.3.3: Most Frequent Error Categories

Linguistic forms	Number of errors	Total errors (%)
Prepositions	688	28.00
Subject-verb agreement	623	25.34
Articles	489	19.90
Plurality	162	6.59
Tenses	144	5.86
Passive form	103	4.19
Word order	96	3.90
Word forms	87	3.54
Conjunctions	65	2.65

The scripts were marked and the errors were categorised by two raters to ensure reliability. Since the purpose of this exercise was to identify the most frequently committed errors, of the 100 samples, Table 3.2.3.1 lists 10 most frequently

committed error categories. Each error was counted and divided by the total number of errors that were accounted for and converted into the percentage.

Insights from a number of studies conducted on error analysis of ESL learners' writings in the Malaysian context were also taken into consideration to select the focused linguistic features of the present study. In a study to identify communication strategies focusing on error analysis in written work among Malay learners, Ahmad (2007) classifies verb errors in simple past tense, past progressive and past perfect to be among the most common committed. Another study of which the participants are Malay learners focusing on error analysis of essay writing indicates that the most common errors found, among others are, verb tense, preposition and subject-verb agreement (Darus & Subramaniam, 2009). Similarly, Wee, Sim & Jusoff (2010) using essay writing as the testing instrument further classify the types and frequency of verb errors found in Malaysian students' written work. Focusing on speaking skills, Ting, Mahathir & Change (2010) identify in their study five linguistic errors commonly committed by Malaysian ESL learners which are prepositions, question formation, articles, plurality and subject-verb agreement. Muhari (2008) investigates error analysis that occur in language transfer using five types of writing as the instrument determines that the most frequently committed errors are verbs, prepositions, plurality and articles. Even though findings across these studies indicate similar errors that are commonly committed by Malaysian ESL learners, the investigation focused on different writing types and language skills. Due to this fact, determining the ranking of errors committed is not feasible due to the elicitations of linguistic forms in different syntactical constructions.

Furthermore, the choice of these linguistic forms was also guided by information from other corrective feedback studies. Storch & Wigglesworth

(2010) carry out a study using writing task describing graphical prompts. The targeted linguistic forms in their study include among others, subject-verb agreement, plurality, articles and tenses. Bitchener et al.'s (2005) study focuses on prepositions, tenses and articles in providing feedback for learners' written work. In addition, a number of studies have focused on article uses in written work and these studies have proposed that further studies on other linguistic forms to be carried out (Bitchener & Knoch, 2008a; 2009a; Ellis et al., 2008; among others). Drawing on this suggestion, the present study focused the analysis on the three selected linguistic forms described above.

Considering all the forms focused in the previous corrective feedback studies, error analysis studies and most frequent errors that occurred in students written samples, the targeted linguistic forms focused on in the present study were subject-verb agreement, prepositions and articles. The participants in the focused group received feedback on only these three linguistic forms, while the unfocused group received feedback on a more extensive range of error categories on top of the three targeted linguistic forms, such as singular/plural, word form, word choice and mechanics. This can be considered as the "normal practice" in writing tasks as mentioned by Ellis et al. (2008) when it concerns unfocused feedback. Explanation on the three focused linguistic forms targeted in the present study is given below.

Focused Linguistic Form: Subject-verb Agreement

The fact that subject and verb are the two components that form most English sentences may be the reason why errors committed are inevitably common found in learners' written work. This is because every time any sentences are constructed, these two features are used. According to Azar (1992), the subject

which is usually a noun, a noun phrase, a pronoun or a pronoun phrase, is followed by a verb in a sentence. These two components should agree with one another in terms of number in simple tenses. Some examples of basic subject-verb agreement structures are given below:

- (a) <u>The graph shows</u> the number of internet users in 2009.
 - "The graph" is a singular noun phrase, thus, it should agree with a singular verb, which is "shows".
- (b) On the other hand, if the verb is plural, the subject should also be plural, for example,

In 2009, most users prefer to use Mozilla as the web browser.

"prefer" is the plural verb that agrees with "most users" which is the plural noun phrase.

(c) If the subject of the sentence begins with "each" or "every", the verb should be singular verb regardless of whether there are more than one nouns connected by "and" as the subject, for example,

Each student and lecturer is given a choice of two types of web browsers.

In this case, even though there are two nouns, which are "student" and "lecturer", the singular verb "is" is used in the sentence because of the word "each".

(d) Another subject that should always collocate with singular verb is when gerund is used. For example,

Paying bills is done online today.

- "Paying" is a gerund and even though "bills" is a plural noun, the sentence takes a singular verb "is" to agree with the gerund used as the subject.
- (e) Sentences that express quantity of which the noun precedes "of", the verb is determined by the noun, for example,

- "Some of the students use the internet for playing games."
- "students" is a plural noun, thus, the verb should agree and take on the word "use"
- "A lot of the equipment is purchased online."
- Even though "A lot of" indicates a big quantity, but since "equipment" is an uncountable singular noun, the verb "be (is)" should also be singular.
- (f) The phrases "The number of" and "A number of" have different SVA structure, for example,
 - (i) <u>The number</u> of internet users <u>is</u> the highest in Japan in 2008.
 - (ii) A number of internet users were not confident with online security.
 - In (i), the singular verb "is" is used to agree with "The number" as a singular subject. The phrase "A number of" shows quantity and can be defined as "a lot of", thus, it should take a plural verb, as in the example, "were".
- (g) In sentences that use "There", the subject comes after the verb "be", for example,
 - (i) There <u>are some widely used inter</u>net browsers in 2009.
 - (ii) There <u>is a widely used internet browser</u> in 2009.
 - "some...internet browsers" as the plural subject should agree with "are" as the plural verb "be". In (ii), the subject "a...internet browser" is a singular noun phrase, thus, the verb "be" should be singular "is".
 - Azar (1992) also includes in her book some irregular subject-verb agreement formations:
- (h) Some subjects regardless of the them appearing to look like a plural noun or noun phrase due to the use of "s" at the end of the word always take on singular verb, for example,
 - (i) The news comes unexpected.

- (ii) The United States has the highest number of internet users in 2007.
- (iii) The Philippines has the lowest number of internet users in 2006.
- (iv) Mathematics is a subject taught in schools.
- (i) A singular verb usually follows a subject that expresses time, money or distances, for example,
 - (i) Five hours of internet browsing in a day is common among students.
 - (ii) 50 dollars is the price of the book.
 - (iii)100 kilometres is a distance between point A and point B.
- (j) Some subjects always take plural verbs, for example,
 - (i) The people are satisfied with the service provided.
 - (ii) The police have arrested a suspect.
- (k) Some subjects can either be singular or plural depending on the meaning and context of use, for example,
 - (i) English is the second language spoken in Malaysia
 - (ii) The English do not use the internet very extensively.
 - In (i), "English" means language, which is a singular noun takes on singular verb "is". In (ii), "The English" refers to people from England, a plural noun, should agree with plural verb "do not use". According to Azar (1992), depending on the context of the sentence, nouns of nationality that end with —sh, like Spanish, -ese, like Chinese, and —ch, like French, can either mean language or people of the country.

In the present study, these were the SVA forms most frequently constructed in the learners' descriptions of the graph. Apart from SVA, prepositions are also frequently used in the written work.

Focused Linguistic Form: Prepositions

The number of prepositions that occurred in the 100 samples taken from previous semester's students' paragraph descriptions was counted to determine the extent of their use. From an average of 20000 words (an average of 200 hundred words/paragraph x 100 samples) of the graph descriptions, prepositions were used for 2747 (13.74%) times in the writings. Similar to SVA, this considerably significant number of prepositions used may contribute to the fact that this linguistic form was one of the most frequently incorrectly used in the written work, thus, attention needs to be given to this feature in the present study.

According to Thomson & Martinet (1981), prepositions are "short words" that usually come before a noun or a pronoun. Preposition that precedes a verb must collocate only with a gerund form of that verb. In order to use the prepositions accurately, Thomson & Martinet state that the learners should be able to distinguish sentences that need a preposition from the ones that do not require a preposition. Once that has been determined, a learner should be able to ascertain the suitable preposition to be used with the construction of the sentence. There are several possible positions of the preposition in a sentence:

- (a) Usually, preposition comes before a noun or a pronoun, for example,
 - "The highest number of users is in Japan"

The preposition "in" precedes the noun "Japan"

- (b) The preposition usually comes after the verb in the verb + preposition combinations. For example,
 - "The information that the users <u>look for</u> can be found on the internet"
- (c) Prepositions of time and date
 - (i) "at" is used with certain specific time, for example,

[&]quot;The lowest number of internet users is at dawn"

- (ii) "on" is used with specific day or date, for example,
- "Most students registered on Monday"
- (iii) "on" used with "time" to indicates punctuality, for example,
- "Everyone arrived on time"
- (d) Prepositions of time implying certain duration
 - (i) Preposition "from" is usually used with "to" or "until", for example, "There is an increase in the number of mobile phone users from 2005 to 2008"
 - (ii) "Since" is used to show duration, from a certain point of time to the time of speaking, for example,
 - "Mozilla has been the most popular web browser since 2007"
 - (iii) "For" is used to show a period of time, for example,
 - "Malaysia has been ahead of the others for two years"
 - (iv)"During" is used when the period of time is known, for example,
 - "The number decreases significantly during the semester holiday"
 - "semester holiday" is known to refer to specific period of time, for example from April to July every year.
- (e) Preposition of movement, positions and directions
 - (i) "From" is used to show a starting point of certain movement, for example,
 - "The website can be accessed from home".
 - (ii) "At" is used to mean arriving at a destination, for example,
 - "Everyone arrives at the office before 8 o'clock".
 - (iii) "By" or "via" is used to show method of movement, for example,
 - "Most users prefer to travel by air".

(iv) Prepositions "at", "on", "to", "into", "along" are most commonly used to give directions, for example,

"The headquarter building is <u>on</u> the left of the street."

(v) Prepositions "at", "in", "into" and "on" are used to indicate arrival or position at a certain place. Some examples are,

"The internet can be accessed at work."

"The highest number of mobile phone users is recorded in Malaysia."

(vi) "Over" and "above" are used to show more than, or higher than, for example,

"The payment for the broadband is <u>over</u> \$25 each month in most countries"

- (f) Prepositions "among", "between" and "with" are used to show relationship between people or things.
 - (i) When there are two persons or things in comparison, "between" is usually used, for example,

"The users have to choose between fax machines and mobile phones."

(ii) "Among" is used when the comparison is to relate to more than two persons or things, for example,

"There are very few similarities among the users."

(iii) "With" is used to show relation, for example,

"The customers have come to an agreement with the suppliers."

(g) Prepositions "of", "to", "in" and "for" are sometimes collocated with adjectives and participles. Some examples are:

"The groups are composed <u>of</u> students from different academic programmes."

"According to the data in the graph, the highest number of users is in 2007."

"Most students are interested in the programme."

"Everyone is ready for the session."

(h) There are prepositions that come after the verbs. Some examples are,

"Many users prefer Mozilla web browser to Internet Explorer."

"The choice depends on the quality of the product."

(i) There are prepositions that come before a gerund, for example,

"This is an advantage of living in a developed country."

These were among others, some of the prepositions that were frequently found in the written work. The third focused linguistic form in the present study was the article and below is the list of this feature occurring in the learners' written work.

Focused Linguistic Form: Articles

Thomson & Martinet (1981) classify articles into two types, which are the indefinite articles and the definite articles. Similarly, Azar (1989) describes the use of articles in relation to nouns and one category that she explained independently is the use of article "a" or "Ø", which means "no article", with generic nouns. Below are the descriptions of the articles used in the 1981) and Azar.

"A" is the indefinite article used before a noun that begins with consonant sound, for example "a graph" or "a university". "An" is another form of indefinite article used before a noun that begins with a vowel sound, for example, "an increase" or "an hour".

(a) The indefinite article "a" or "an" comes before a singular count noun that is mentioned for the first time and does not represent any particular person or thing, for example,

"There is a pattern shown in the graph"

- (b) It is also used to indicate an example of a class of things, for example,
- "A student must attend all programmes", which means, "all students"
- (c) Certain numerical expressions use indefinite article, for example,
- "According to the graph, <u>a lot of</u> users are from the Asian countries"

 "It requires <u>a dozen</u> of eggs."
- "The" is the definite article and can be used with both singular and plural nouns.
- (a) It is used for a noun that is mentioned for the second time, for example, "The result is presented in a graph. The graph shows that the highest number of users is in May."
- (b) It comes before a noun of which there is only one in existence, for example, "The earth is round"
- (c) It is used with superlatives and ordinal numbers, some examples are, "Malaysia has the highest number of mobile phone users in 2004."

 "There is an increase in the second half of the year."
- (d) It is used with certain proper nouns, some examples are,

"The Netherlands is in the third place."

"The highest amount of rainfall is recorded in the Riviera."

In certain sentence constructions, the article is omitted.

(e) Generally, article is not used with names of places or names of people, for example,

"The number of users is the highest in Malaysia."

But "the" is used before a surname indicating the family as a whole, for example,

"The guest singers are the Jacksons."

Ellis et al. (2008) states that articles are the type of linguistic forms that frequently appear in learners' written work and for second language learners whose first language does not have article in the linguistic system would most probably face problems using articles accurately. Most participants in the current study were ESL learners whose mother tongue does not have articles in the language system and based on the students' writing samples, errors in the use of articles appear regularly in the written work.

3.4 Treatment Instruments and Procedures

This section describes the selection of treatment instruments, which include the written task and the LREs. The second part of the section explains the procedures and the administration of these instruments in the treatment sessions with selected participants.

3.4.1 Treatment Instruments

The selection of treatment instruments and tasks considered two main aspects; (i) the instrument elicited sufficient use of SVA, prepositions and articles in the written work produced in a context, in this case, the graph descriptions; and (ii) it was the form of written task that the participants were familiar with, so that the instructions and requirements of the tasks can be fully understood by the participants. The participants did a course on academic report writing and one of the assessments was to describe graphical representation of research data. Thus, using this instrument in the treatment sessions did not pose any problems in terms of explanation and understanding of the content needed for the descriptions. Furthermore, similar instrument was used in Storch & Wigglesworth's (2010) study and from the feedback provided to the written work, the pairs in their study managed to engage in a language-related episodes

(LREs) focusing their discussion on the linguistic forms highlighted by the feedback.

LREs as defined by Swain & Lapkin (1998) occur when learners deliberated over language use that may include grammar and vocabulary. LREs also encompass the act of learners questioning, "implicitly or explicitly, their own language use or that of others" (Williams, 2001). In the current study, LRE was one of the two main components of the treatment. Written tasks were exploited to elicit the use of the targeted linguistic forms of which two types of corrective feedback were provided. Subsequently, deliberation over the feedback was done in the pair talk sessions. These treatment phases were primarily carried out to measure the efficacy of indirect focused feedback and unfocused feedback as well as to determine the more effective corrective feedback in enhancing the accurate use of the targeted linguistic forms.

3.4.2 Treatment Procedures

Treatment procedures were catregorised into two types; written tasks and pair talks, which were conducted in three sessions. The participants completed a writing task in the first session, and the second session required participants to focus on the written feedback provided by engaging in a pair talk. The second writing task was also given in the second session and finally, in the third session, participants engaged in the second set of pair talk with the same pair from the first pair talk session. Each written task required the participants to write a 200-word graph description, which included introductory sentence, discussion and a concluding remark. The second and third sessions involved participants to engage in the pair talks to discuss the feedback provided to the written work of

which the occurrence of LREs were recorded. Figure 3.4.2 illustrates the sequence of the activities conducted during the treatment sessions.

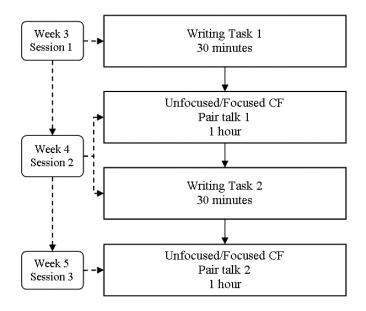


Figure 3.4.2: Sequence of Treatment Activities

Detailed descriptions of the procedures involved in the written tasks and the pair talks of which the LREs were elicited are provided in the subsequent sections.

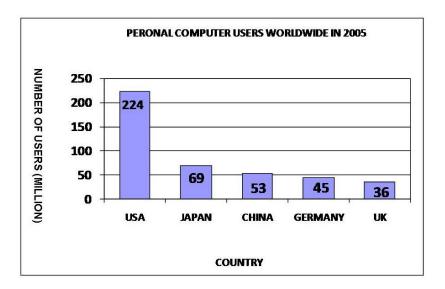
3.4.2.1 The Written Task

The participants were required to complete two written tasks in a span of three weeks, which started in week 3 and ended in week 5. In week 3, participants were given a graphic prompt in a form of a bar graph and a sheet of A4 paper. 5 minutes were allocated for the participants to look at the graph and they were allowed to ask questions about the graph if they had anything that they did not understand. Then, they were given 30 minutes to write the description by

selecting and reporting the main features of the graph. A sample of graphic prompt used is given below:

Instructions

The graph shows the number of personal computer users worldwide in 2005. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You may ask questions about the graph if you need any clarifications. You have 30 minutes to complete this task.



The description should include an introductory sentence, discussion of the data in the graph, in terms of the figures and the trends, as well as a concluding remark (see Appendix D for a sample of graphic prompt and description). After 30 minutes, the writing was collected and marked by the researcher and 25% of these scripts were inter-rated by another ESL instructor to verify the number and classification of the targeted linguistic forms.

In week 4, the first written work was returned to the participants with indirect CF in either focused or unfocused feedback accordingly. The participants were asked to work in pairs that they chose themselves (Refer to section 3.3.2.2 for details of the pair talk and the LREs). The participants were briefed on the editing symbols that they found on their writing assignments before the pair talk session and they were given a copy of the editing symbols for their reference. They were engaged in a pair talk to discuss the CF provided for

their writing assignments. Each written work was allocated approximately 30 to 45 minutes for the pair to discuss. All pair talks were recorded to be analysed for the occurrence of the LREs. Each participant was given a piece of paper for them to write down the errors and the corrections that they discussed during the pair talk session. After the participants had completed the pair talk, the written text and the notes from the pair talk were collected. Participants were allocated 30 minutes to write another 200-word paragraph on a different graphic prompt that was of a similar level of difficulty. The feedback of this writing assignment was given to the participants the following week where they went through the same procedure. (See Appendix E for a complete set of Writing Tasks)

3.4.2.2 Language-Related Episodes (LREs)

The language-related episodes (LREs) were elicited from the two pair talk sessions during the treatment. These sessions took place in the multimedia language laboratory at the Centre for Modern Languages and Human Sciences. The laboratory is equipped with 30 computers installed with Windows operating system. Each student had an access to the computer, but for the purpose of the pair talk, they were asked to work at only one computer for each pair. The participants were given the freedom to choose their own partner for the pair talk to ensure that they were comfortable discussing their written work. Yoshida (2008) stated that intersubjectivity, which is defined as "sharing of events and goals of a task cognitively and socially" was proven to influence the effectiveness of the pair work in task completion. Intersubjectivity should be established to ensure that the pair work can contribute to the learning development. In the present study, by having the participants chose their own partner, there was a greater chance for them to have shared goals in the task

completion leading to the effectiveness of the pair talk. In addition, the Storch & Aldosari (2013) study emphasized the importance of collaborative pair talk of which learners would be able to focus on the L2 use and produce more LREs to facilitate learning. With this assumption, the participants in the present study were asked to choose their own partner in order to provide the opportunity for them to be more comfortable with the pair work, thus, encouraging them to be highly collaborative and cooperative in completing the pair talk.

Another reason for giving the participants the opportunity to choose their own partner was based on the observation from the pilot study. In the pilot study there was one pair that was assigned by the researcher since two participants were left without pairs. LREs elicited were much lesser compared to other pairs and interview with this pair revealed that one of them was not comfortable working with the partner because she was not familiar with the partner and perceived her as being more proficient than herself. During the pair talk, most of the time the lower proficient participant simply agreed to the corrected forms suggested by her partner regardless of whether she understood the corrections or not. Thus, to avoid such circumstance, the participants in the present study were given the freedom to choose the partner that they would feel comfortable to work with since the main aim for the pair talk was to elicit as much LREs as possible to direct learners' attention to the CF and the language use in written work.

The first pair talk took place in week 3, their first writing assignments with either the focused or unfocused feedback accordingly were returned. Each pair was provided with a microphone for recording their discussion. Two pieces of A4 paper were given to each pair for them to write down their errors and corrections that they came up with during the discussion. 30 minutes were allocated to discuss each written work. However, they were allowed to extend

their discussion if they needed to. Once they have finished discussing both written work, they were asked to save the recording under the following name: A/BPT#-P#, which stands for Focused(A)/Unfocused(B) Pair Talk 1 or 2-Pair Number. The recordings were saved in an MP3 format on the desktop and the researcher would then save the recording in a portable disk. All the notes and the written work were collected after they had completed their discussion. At the end of the first cycle of the pair talk, the participants were given the second writing task to complete in 30 minutes.

In week 5, the second writing task was returned to the participants with the designated feedback according to the treatment group. Once they had had a look at their scripts and were satisfied with the feedback provided, they were asked to work with the same partner they had the previous week for the pair talk session. Following the same instructions given in week 4, all participants went through approximately 45 minutes to one hour to complete the second pair talk session. At the end of the pair talk, each pair were again asked to save their recording and to number the pair talk as "PT2" and to use the same name for the file as instructed in the previous week. The treatment session ended once all the notes were collected and recordings were saved.

3.4.3 Qualitative Interview

The fourth research question of the current study was to determine the factors that influence the uptake and retention in the accurate use of the targeted linguistic forms in the written work after being provided with the focused and unfocused corrective feedback. For this reason, the present study employed a semi-structured retrospective interview with selected participants from both treatment groups. Mackey & Gass (2005) describe a semi-structured interview as

"less rigid" due to the fact that the researcher still has some space for probing and eliciting more information from the interviewee while being guided by a list of questions. With regards to the participants, the selection was made based on the performance of the participants in both immediate posttest (for uptake) and delayed posttest (for retention). The participants who had performed well in the posttests which can be considered as an indication of a significant uptake in the immediate posttest and retention in the delayed posttest were chosen for the interview. At the same time, participants who showed no improvement or a decline in the performance in the posttests were also selected for the interview to determine the factors that may become the hindrance to uptake and retention of the accurate use of the targeted linguistic forms.

The interview was conducted in week 13, which was the subsequent week after the delayed posttest. Each interview session lasted for approximately 45 minutes to one hour and the participants gave consent for the sessions to be recorded. The questions the participants were asked were guided by three categorizations of data (See Appendix F). The first category is the strategy used in responding to the feedback. This relates to the notion of noticing, hypothesis testing and metalinguistic functions as the grounding framework of the current study. Other strategies that may not relate to Swain's (1995; 2005) output hypothesis, but seemed to be prevalent and relevant to the research focus were also considered in the analysis of the interview data. Secondly, the interview questions were constructed to find out the influence of the extent of the LREs engagement, the feedback provided and the number of tasks given to the participants. Finally, the data gathered from this qualitative inquiry were to explore the affective factors, such as the participants' attitude towards the tasks, feedback and grammatical accuracy. These affective factors have been

previously researched on and claimed to have to a certain extent, some influence on the uptake and retention of the accuracy of linguistic forms (Hyland, 1998; Lee, 2008b; Storch & Wigglesworth, 2010).

The interview data were then transcribed using the guidelines and sample of transcription convention for classroom discourse provided in Mackey & Gass (2005). The transcribed interview data were typed into the Microsoft Office Word application and saved as plain text to be imported to WEFT QDA version 1.0.1 for analysis. Oliver et al. (2005) describes denaturalized transcriptions as focusing more on the information of the interview rather than capturing all elements of speech (like pauses or stutters) or any other "interview noises" in the transcriptions. Halcomb & Davidson (2006) also state that since the nature of mixed method research requires analysis of the interview data that explore ideas and information, it is not necessary to employ verbatim transcription technique. The current study which was a mixed method research included the qualitative inquiry to enhance and verify findings from the quantitative component of the investigation. Transcriptions of the interview data captured only the substantial information to be coded and analysed. Information like the "pause" or fillers like "ahh" were not taken into account for the coding and analysis purposes.

The coding process was carried out using WEFT QDA version 1.0.1. The transcribed interview data were imported to the software and the categories were created in the software for the coding purpose. The data were marked according to the category constructed, which are guided by Swain's Output Hypothesis. Other themes that have surfaced from the data that were relevant to the research question were also considered and categorised accordingly. Once the data were coded, contextual analysis was carried out to interpret the data addressing the fourth research question of the current study. Detailed analysis and

interpretations of this qualitative interview are presented in chapter 5. The next section describes the testing instruments and procedures to measure the participants' performance in the accurate use of SVA, prepositions and articles.

3.5 Testing Instruments and Procedures

The testing instrument for the tests required the participants to complete written tasks. The design of the test focused on the purpose of measuring the accurate use of subject-verb agreement, prepositions and articles in a communicative context, specifically referring to the use of these linguistic forms in graph descriptions. Even though Ellis (2005) had distinguished the criteria for implicit and explicit knowledge to be considered in designing testing instruments, in the current study, those conditions appeared to intertwine in certain aspects. Ellis states that one of the criteria of implicit knowledge measurement in tests is that there is a pressure on learners to use the form in real time focusing on meaning to communicate, and measuring explicit knowledge requires learners to explicitly use the linguistic rules in the written work.

In the current study, even though the participants were writing under certain pressure to complete the task in 30 minutes, which is one of the features to measure implicit knowledge in a test, they were, however, aware that they needed to use their metalinguistic knowledge in constructing sentences in the written task. Although the primary concern of the present study was to focus on the explicit knowledge of the learners, regardless of the types of knowledge measured in the tests, the instruments were chosen due to the fact that this written task elicited the use of the targeted linguistic forms and the task was familiar to the participants since graph description was a part of their assessments for the proficiency course that they did in the previous semester.

3.5.1 Pretest, Immediate Posttest and Delayed Posttest

In Storch & Wigglesworth's (2010) research, the participants were required to complete written tasks based on graphic prompts in the treatment session. The present study, employing similar instruments, extended the use of this graphic prompts as the testing instruments (pretest, immediate posttest and delayed posttest). Mackey & Gass (2005) assert the importance of instrument reliability in ensuring that the tests conducted are consistent and able to yield accurate results. The testing instruments used in the three tests were carefully selected so that the level of difficulty and familiarity was similar across the tests as well as with the treatment instruments used in the two written tasks.

According to Ary et al. (2010), the purpose of using different sets of parallel test items is to avoid participants from recalling the written work in the sequence of tests. These alternative test items would have to be tested for their reliability and consistency by measuring their correlation coefficient. Coefficient of stability and equivalence is resulted from the condition of which two parallel sets of test are administered to the same group of participants in two different occasions. The results that indicate high stability and equivalence reflect that the two parallel forms of tests measure the same skills with consistency over time. In the current study, the tests were carried out to measure the performance of the participants' accuracy in the use of SVA, prepositions and articles in written graph descriptions. Since the pretest, immediate posttest and delayed posttest were administered in three different occasions over a period of time, ensuring the reliability and consistency of the test instruments were of great importance.

For this purpose, the equivalent-form reliability test was conducted prior to the pilot study with a group of 12 participants with criteria matching the participants in the present study. For three consecutive weeks, the participants

were given the test instruments in no specific order; the first week they were asked to write for the delayed posttest, next the pretest and finally the immediate posttest. The same scoring procedure that was going to be used for rating the written work in the present study was used with these participants' scripts. The total scores of all three targeted linguistic forms for each participant were keyed into the Microsoft Excel spreadsheet. Using Microsoft Excel as a tool, a correlation coefficient was calculated to determine the equivalence of forms and the consistency over time. Table 3.5.1 lists down the r-value of the reliability test.

Table 3.5.1: Correlation Coefficient Measurement of Equivalent-Forms

Tests	r-value
Pretest & Immediate posttest	.813
Pretest & Delayed posttest	.842
Immediate posttest & Delayed posttest	.834

Jackson's (2009) guidelines state that 0.7 to 1.0 can indicate a strong correlation between the variables. In the current study, the approximate value of 0.8 means that the scores of most participants in a test are similar or equivalent to the scores in another test. For example, if a participant performed well in the pretest, he would perform equally well in the immediate posttest and the delayed posttest, or, if a participant had a low score for the pretest, he would have a low score as well for the immediate posttest and delayed posttest. Based on the figures in Table 3.5.1, it can be concluded that the test instruments used in the present study were reliable and consistent. By having these tests measured for reliability and consistency, the study was conducted with 90 participants after being piloted the previous semester.

The pretest took place in the second week of the semester after the briefing session in week 1. In the same week of the second treatment sessions, the immediate posttest was administered and finally, after a six-week interval, the delayed posttest was conducted. The six-week gap from the immediate to the delayed posttest was decided to address the concern voiced by Truscott (1996) on the issue of learners' motivation to continue to use the feedback after a period of time especially after they have moved on to a different semester. In the present study, the six-week interval was equivalent to the inter-semester break when students are on one and a half month holiday after the first semester ends and before the second semester commences. (See Appendix G for a complete set of the test instruments)

In the next section, the scoring procedure of these written tests will be described. In addition, explanation on the analysis and coding procedures of the LREs will also be included.

3.5.2 Scoring Procedures of the Written Tests

The present study operationalised accuracy as the correct use of the targeted linguistic forms – subject-verb agreement, prepositions and articles - in the appropriate language contexts. As suggested by Mackey & Gass (2005) in order to be able to rate both appropriate and inappropriate uses of the targeted linguistic forms, the present study employed the combination of the target-like use (TLU) scoring procedure (Pica, 1984) and the suppliance in obligatory context (SOC), used in a number of studies (e.g., Ellis et al., 2008) to rate and categorise the participants' written work. Suppliance in obligatory context (SOC) allowed the raters to identify the use of the targeted linguistic forms in obligatory contexts. In other words, this SOC measurement quantifies the frequency of

appropriate uses of certain linguistic features as supplied in the context where they are required. Since the TLU included the use of the forms in non-obligatory contexts as well, thus the calculation considered the total use of the targeted linguistic forms in the written work. Below is the calculation formula:

A score of "1" was granted to the accurate use of each of these linguistic forms as supplied in obligatory contexts. For example, if the student wrote "The graph shows the number of personal computer users in Malaysia in 2008," the SVA part in the sentence, which is "The graph shows" was underlined and a score of "1" was written above the phrase because the verb "shows" was used accurately and in agreement with the singular subject "The graph". The same procedure was implemented for the use of article "the" and the prepositions "of" and "in". An example of the scoring procedure is given below:

Linguistic forms	Score
SVA	1
Preposition	3
Articles	2

However, "0" was given if the student failed to use the forms appropriately. For example,

Linguistic forms	Score
SVA	-
Preposition	2
Articles	1

Using the example above, if for instance, the total number of the occurrence of prepositions was 10, the correct uses, which are the 'number of correct suppliance in obligatory context' were two, thus the calculation would be as follows:

$$TLU = \frac{2}{10} X 100 = 20\%$$

The percentage of 20% was gained for the preposition uses and this percentage would then be keyed in into the SPSS 16.0 for statistical calculation. The conditions of which "0" was given are described below:

- (a) Inappropriate use of subject-verb agreement
 - (i) Subject does not agree (number) with the verb, for example,

"The graph show the number of internet users in 2007."

It should be "The graph shows..."

(ii) Missing verb, for example,

"Many students to class by car."

It should be "Many students go to class by car."

(iii) Misuse/ overuse of verbs, for example,

"The students are like to use SMS as the means of communication."

It should be "The students like to use..."

(iv) The verb used is inappropriate (should use different verb for the subject), for example,

"The second highest country will be Japan..."

It should be "The second highest [number of users] is Japan"

(v) There is something wrong with the subject that affects the correct use of the verb, for example,

"Both of the country have bigger number...."

It should be "Both countries have bigger number..."

- (b) Inappropriate use of prepositions
 - (i) Inappropriate preposition used with a noun/ noun phrase, for example,

"In the other hand, users prefer to..."

It should be "On the other hand, users prefer to ..."

(ii) Semantically inappropriate, for example,

" ... know how to interact with the computer."

It should be "...know how to interact via the computer."

(iii) Missing preposition, for example,

"The most popular is the Internet Explorer 78%."

It should be "The most popular is the Internet Explorer at 78%."

(iv) Preposition is supplied in an inappropriate context, for example,

"All the books should be put at there."

It should be "All the books should be put there."

- (c) Inappropriate use of articles
 - (i) Missing article, for example,

"The participants prefer to use Internet to get connected."

It should be "The participants prefer to use the Internet to get connected."

(ii) Article is supplied in an inappropriate context, for example,

"In <u>a</u> conclusion, the most popular search engine is the Internet Explorer."

It should be "In conclusion, the most popular search engine is the Internet Explorer."

- (iii) Inappropriate article is used with a noun or a noun phrase, for example, "The user feels that it has been \underline{a} enjoyable experience."
 - It should be "The user feels that it has been <u>an</u> enjoyable experience."
- (iv) The use of article is more appropriate in the place of a pronoun, for example,
 - "In Germany, there are about 45 million users in their country."
 - It should be "In Germany, there are about 45 million users in the country."
- (v) The use of article is more appropriate in the place of a quantifier, for example,
 - "...the number of personal computer users shows the condition of the technology in <u>any</u> country."

It should be "...the number of personal computer users shows the condition of the technology in the country."

All scripts were marked using these descriptions as the guidance in giving either a score of "1" or "0". After each linguistic form is categorised and rated, calculation employed in Bitchener et al.'s (2005) and Sheen et al.'s (2009) studies was made use in the current study. The calculation, as formulated to derive the percentage of the SOC and TLU of each linguistic form is outlined below:

- (a) The calculation for SVA
 - (ia) The total number of correct and incorrect uses of subject-verb agreement was counted.

- (iia) The total number of correct uses of subject-verb agreement were counted.
- (iiia) The total for (iia) was divided by the total for (ia) for each student.
- (b) The calculation for Prepositions
 - (ib) The total number of correct and incorrect uses of prepositions was counted.
 - (iib) The total number of correct uses of prepositions was counted.
 - (iiib) The total for (iib) was divided by the total for (ib) for each student.
- (c) The calculation for articles
 - (ic) The total number of correct and incorrect uses of articles was counted.
 - (iic) The total number of correct uses of articles was counted.
- (iiic) The total for (iic) was divided by the total for (ic) for each student. The percentages acquired from these data were then keyed in to the SPSS version 16.0 to generate figures for the statistical inferential analysis.

Apart from the scoring procedures for the written test, coding and analysis procedures of the LREs were also constructed and carried out in the data collection phase of the study. The next subsection describes the procedures involved.

3.5.3 Coding and Analysis Procedures of the LREs

The coding system of the LREs was adapted from Storch & Wigglesworth's (2010) study focusing on the features of learners' engagement in the LREs and the effectiveness of two feedback types on the uptake and retention of the corrective feedback provided (See Appendix H for the Storch & Wigglesworth coding system and the adapted version). Guided by Swain's (1995; 2005) Output Hypothesis, the LREs analysis in the current study considered the elements of

noticing which are categorised into two; perfunctory and substantive noticing (Qi & Lapkin, 2001). Qi & Lapkin (2001) relate L2 learners' performance with the act of understanding the errors and the metalinguistic features in the written work. Leow (1997) describes these levels of awareness as first, noticing which is parallel to perfunctory and secondly, at the level of understanding which can be considered to be equivalent to substantive noticing. In the present study, learners' focus on the ungrammatical uses as highlighted by the FCF or UFCF which was an indication of noticing, was categorised as substantive and perfunctory. When a participant displayed focus at a substantive level, they were able to explain why an error has occurred and how the corrections should be made. Perfunctory on the other hand was when learners were not able to explain the errors or the corrections.

The second element of the theory is the notion of hypothesis testing. Swain (2005) claims that the "output may sometimes be, from the learner's perspective, a "trial run" reflecting their hypothesis of how to say (or write) their intent" (p.476). It is probable that the learners may make changes to the output in response to the feedback provided. This hypothesis-testing function provides learners with the opportunity to explore and try out new forms of the linguistic items. Thus, Swain further asserts that producing the targeted linguistic form accurately is important because that may be considered as an indication that "learners were actively seeking feedback through hypothesis testing" (Swain, 2005, p.477). In the context of the present study, focusing on the CF that the participants received, learners also trial run their language output when they hypothesize on the corrections that they were trying to make. Previous studies have described the extent of engagement on LREs as the deliberations in which the pair suggest, agree, disagree, explain and provide comments "that show

evidence of meta-awareness of the feedback received." On the other hand, limited engagement is described as episodes in which the pair simply read and repeat the feedback provided. In this case, no new forms are suggested or mentioned in the episode (Qi & Lapkin, 2001; Storch & Wigglesworth, 2010). Since the present study was grounded on the output hypothesis, the above description on extent of engagement was adapted and integrated with the notion of hypothesis testing. This means that the suggestions or counter suggestions made by the pair for example, was considered testing the hypothesis and the number of times they "trial run" a form until they got the correct form (or they considered it correct), was regarded as the extent of hypothesis testing in the LREs.

Metalinguistic function or reflective function in Swain's Output Hypohesis is employed through the integration of the pair talk or labeled by Swain as "collaborative dialogue". In the current study, collaborative dialogue which serves as the platform for noticing and hypothesis testing to occur is claimed to be the "source of language learning." In other words, as Swain has stated that collaborative dialogue engages students in "problem solving and knowledge building". When it concerns second language learners, the discussion that the learners engage in the pair talk is to solve "linguistic problems and building knowledge about language" (Swain, 2005). The evidence of this development to have an effect is gathered through the analysis of the LRES derived from the collaborative dialogue. Participants were considered as exercising metalinguistic function when they reflect on the responses that they came up with to the CF that they received. Reflections were considered facilitative when the learners were able to take up the accurate use of the targeted language features and retain the accuracy after a period of time.

In the current study, the pair talks that were recorded were transcribed and analysed for the extent of engagement in the LREs. Essentially, the coding and analysis could be categorised into three components. The first part was to identify the resolutions of the linguistic forms that were highlighted as being erroneous in the form of written feedback. Secondly, guided by the theory described earlier in this section, the analysis was to determine whether noticing that occurred was either perfunctory or substantive. The notion of hypothesis testing and reflective functions were employed in observing the extent of engagement in the LREs. Finally, other prevailing factors such as linguistic features and task-related matters were also included in the coding categorisations. The recordings of the pair talks were grouped into two sets according to the sessions.

The data were then transcribed and coded using the coding system adapted from Storch & Wigglesworth's (2010) study and customized to suit the framework of the current study. Before the three components were coded, the researcher identified all three linguistic items that were given feedback and contrast the number of those that were attended (changes were made/ deliberated over the feedback), to those that were not attended to. The figure was recorded in the Microsoft Excel Spreadsheet. The feedbacks that were not attended to were highlighted and not considered for further coding process.

The next phase of the coding process utilised WEFT QDA version 1.0.1 software. The first category was to mark for the resolution of the feedback. Below is the sample page of the software used for LREs coding process. The sample below shows the categories displayed on the right-hand side of the page. The texts were marked or coded according to these categories guided by the Output Hypothesis.

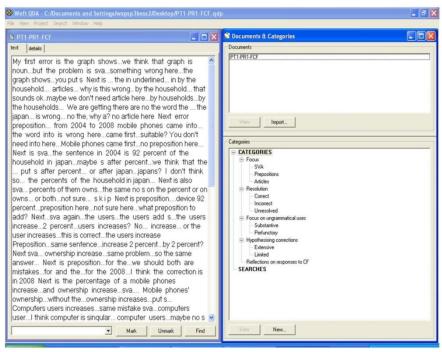


Figure 3.5.3.1: Transcribed LREs for Coding using WEFT QDA 1.0.1

As shown in Figure 3.5.3.1, the main categories or codes constructed are form-focus, resolution, focus on ungrammatical uses, hypothesising corrections, which are further subdivided accordingly, as well as reflections in responses to CF. When all the texts were coded, in a different window, texts that had been coded under the each category can be retrieved individually, as shown in the example below for SVA form focus in Figure 3.5.3.2:

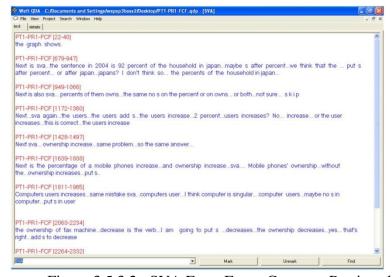


Figure 3.5.3.2 : SVA Form Focus Category Retrieved

Under "Resolution", the errors that were resolved correctly, "correct" was used, while "incorrect" was marked for incorrect answer, and "unresolved" would be marked if the pair failed to come up with any form of correction. Next, "perfunctory" and "substantive" were classified in the focus on ungrammatical uses categories. For the third component, extensive engagement which indicated hypothesising corrections was coded as "extensive" and "limited" was used for engagement that demonstrated limited or no attempt of hypothesising during deliberation over the feedback. Finally, the categorised data were tabulated using the "review coding" function in the software according to the linguistic forms in the rows on the left hand side and the categories presented in the columns. Figure 3.5.3.3 is an example of the coding review grid taken from the first pair of pair talk session 1:

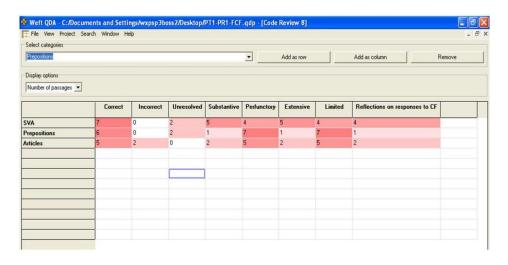


Figure 3.5.3.3 : Coding Review Grid (WEFT QDA 1.0.1)

In order to examine the retention of the corrective feedback on the three linguistic forms, a process-product analysis was employed (Nassaji & Swain, 2000; Storch & Wigglesworth, 2010). The analysis linked the LREs in collaborative dialogue with the performance of the participants in the immediate and delayed posttests. To establish this link, the comparison was made between the response of the participants to the corrective feedback provided for the three

targeted structures and the accurate or inaccurate uses of these forms in similar instances identified in the writings of the immediate and delayed posttests. In other words, since the participants were asked to produce different written work for the first and second treatment sessions and not a revision of the same writing piece, the possibility of encountering the same sentence was very unlikely. So, to analyse the uptake of certain feedback provided for the written work, similar sentence structures of which the targeted linguistic forms occurred used in the written work were accounted for from two written tasks. The example below shows the selection of linguistic forms for LRE analysis. The sentence is taken from Writing Task 1, looking at feedback on preposition:

The graph shows the number of personal computer users in Malaysia at 2008

After LREs engagement during Pair Talk 1, the learner made correction as "in 2008". Below is the sentence written by the same participant taken from Writing Task 2, looking at similar construction using preposition:

The graph shows the percentage of SNS features used in Japan $\underline{\text{in}}$ 2010.

This classification can be summarised as below:

Source	Error	Correction	Uptake	Retention
Writing task 1	at 2008	in 2008	$\sqrt{}$	-
Writing Task 2	-	in 2010	$\sqrt{}$	$\sqrt{}$

The similar construction using preposition is underlined in both sentences. These uses were accounted for as a demonstration of uptake and retention in the LREs analysis.

When all the LREs were coded, the figures from the WEFT coding review were transferred to the Microsoft Excel application to run the measurement of frequency. These data were then compared and contrasted to the pretest-posttest statistical data for deductions addressing the research questions of the present study. Data from LREs analysis were also used to complement findings from the qualitative interview.

In the subsequent section, details on the inter-rating reliability process are provided which include the inter-raters' reliability of the written tasks and the LREs analysis.

3.5.4 Inter-rater Reliability

One of the crucial factors that influence the results of any investigations is the aspect of reliability. Maskey & Gass (2005) assert that establishing coding reliability in classifying and analyzing data is of great importance to enhance the arguments or deductions of the research results. In the present study, the interrating exercise was carried out in several stages of the data analysis, which included the five written tasks (pretest, two posttests and two treatment tasks) and the LREs that occurred during the pair talk. To assist this process, an interrater was selected and worked closely together with the researcher throughout the data analysis processes.

The second rater, aged 48, is a lecturer teaching English proficiency at the same university with the researcher. He has been teaching English language for 25 years with the opportunity to experience teaching students at various levels, from primary school to university level. He has a degree in Education majoring in linguistics and literature and a master's degree in English as a second language. He has had an experience living in an English speaking country

for two years when he was studying for his degree. The main reason he was selected to be the second rater was because of his willingness to assist in the research. Furthermore, he is familiar with graph description writing task and has knowledge in both focused and unfocused types of feedback used in the present study.

Prior to the data collection sessions, the second rater was given the explanation on the purpose of the study and his roles in the research. His involvement started from the pilot run of the data collection. By the time the real data collection was carried out with a bigger number of participants, the second rater was well versed with all the procedures and processes. As has been pointed out by Mackey & Gass (2005), for each written work that he inter-rated, the nature of the treatment groups as well as the data set (tests or treatment tasks) was not revealed to avoid any form of biases in the scoring exercise. After the pilot study was over, to further enhance the scoring procedures, adjustments and refinements were made to the scoring procedure and the coding system of the LREs based on the discussion between the researcher and the second rater.

3.5.4.1 Written Tests & LREs

The researcher categorised and rated all scripts for each test and treatment session. For the purpose of inter-rating exercise, Mackey & Gass (2005) suggest to randomly select a portion of about 25% from the different parts of the data sets. Thus, in the present study, 25% of the scripts from each test were randomly selected and rated by the second rater. To test inter-rater reliability, the scoring procedure was used to guide the rating and the score of "1" or "0" was keyed into the SPSS to run crosstabulation descriptive analysis to generate the value of

kappa. Table 3.5.4.1 lists down the Cohen's Kappa results of the inter-rater reliability test run in the SPSS version 16.0 for the pretest and the posttests.

Table 3.5.4.1: Cohen's Kappa for Inter-rater Reliability of the Written Tests

	SVA	Prepositions	Articles
Pretest	.912	.904	.901
Immediate Posttest	.903	.913	.895
Delayed Posttest	.907	.921	.902

Portney & Watkins (1993) have provided the guidelines for considering Cohen's Kappa values of which "excellent" carries the value of 0.81 to 1.00 (as cited in Mackey & Gass, 2005). In the current study, the values derived from the reliability test as listed in Table 3 could be considered as showing high interrating reliability. Furthermore, the use of kappa considers both agreement and disagreement of the target-like use in the participants' written work. It also considers for chances of agreement (or disagreement) that may occur in the rating exercise, for example, a rater may give "0" for non-target-like use (for example, missing article) and the second rater may miss that error and not give any scores. If percentage agreement was used, only the final scores were considered. In this case, using the score of "0" and "1", detailed adjustment can be made to show that there has been a disagreement, thus a different score should be given, eliminating the chance of this condition being disregarded.

Using the coding system for LREs analysis developed by Storch & Wigglesworth (2010) and adapted to fit in the Output Hypothesis framework, the researchers and the raters worked on categorizing and rating the LREs that occurred during the pair talk. The researcher rated all 100% of the LREs from the two sessions of pair talk and 25% of the transcribed pair talks were randomly selected to be rated by the second rater. Before the rating began, the second rater was briefed and trained on the categorization of the LREs where three sets of

transcribed pair talk were categorised and coded together with the researcher before proceeding to rate independently. Similar to the written tasks, the scoring for the LREs also used the score of "1" or "0". The scoring of the LRES was carried out using WEFT version 1.0.1. An example of a LREs engagement is given below:

Participant's written sample:

SVA

The graph show the number of internet users in 2005.

In this example, the participant committed SVA error and during the pair talk, the error was attended to and the pair deliberated over the feedback provided.

Pair talk sample:

P1: Here is one error... it is SVA...subject-verb agreement.

P1: The subject is....I think "the graph"

P2: Yes..."the graph"

P2:"show" is the verb?

P2: I think it should have an "s" because "the graph" is singular...

P1: "Yes... singular... "show" must have "s"...

P1: It should be "The graph shows...."

This is considered as "Resolved correctly", and the score of "1" was given to the correction. Since they came up with a reason why there should be an "s" with the verb "show", it was considered as "Substantive Noticing" and the extent of engagement was quite extensive. For the coding exercise, all three parts were rated as "1" each, as shown in the example below:

Pair	Resolution		Noti	cing	Hypothesis Testing		
Pair	correct	incorrect	unresolved	Perfunctory	Substantive	Extensive	Limited
1	1	_	_	_	1	1	

The "0" and "1" scores, extracted from the WEFT application under "Coding Review" were keyed in to the SPSS version 16.0 and crosstabulation descriptive analysis was run to generate the value of kappa. The calculations were carried

out cumulatively for all three linguistic forms and the results were tabulated into three components, as listed in Table 3.5.4.2 below.

Table 3.5.4.2: Cohen's Kappa for Inter-rater Reliability of the LREs

LRE Analysis	Value
Resolve Correctly/ Incorrectly/ Unresolved	.905
Perfunctory/ Substantive	.893
Extensive/ Limited Hypothesis Testing	.886

Referring to the guidelines by Portney & Watkins (1993), the average Kappa value of 0.9 indicates that the inter-rater reliability can be considered as very high. As mentioned earlier in this section, adjustments were made to the coding system initially adapted from Storch & Wigglesworth's (2010) study to correspond to the output hypothesis used as the framework of the current study. Refer to Appendix G for the guidelines of the coding system for the LREs.

Chapter Summary

Descriptions of the methods used in the present study were presented in this chapter. This mixed method study was designed to investigate the efficacy of two corrective feedback types on the accuracy of three focused linguistic features in learners' written work, the differential effects of these two CF types and the factors affecting their efficacy. The pretest-treatment-posttest quasi-experimental method was employed with three levels of between-subject factor and three levels of within-subject factor to address the inquiry of indirect focused and indirect unfocused feedbacks efficacy and their differential effects on the accurate use of subject-verb agreement, prepositions and articles in learners' written graph descriptions specifically focusing on the level of uptake and retention in the immediate posttest and delayed posttest. The participants in the treatment groups went through two treatment cycles requiring them to write two 200-word descriptions of a graph and receiving feedback according to their designated

treatment groups. Two pair talks were also performed to discuss the written feedback provided of which LREs were expected to occur providing the participants means for the process of noticing, hypothesis testing and metalinguistic or reflective functions. The qualitative inquiry to determine factors influencing uptake and retention included LREs analysis from the pair talks during the treatment session and the interview that was carried out after delayed posttest was complete.

The next chapter describes the analysis and findings of the study from the quantitative investigation delineated in the data assessed by two-way repeated-measures ANOVA. Results from this measurement are presented based on the participants' accuracy scores across the three treatment groups over time. Analysis and interpretations of the data from the qualitative inquiries will be presented in the subsequent chapter.

CHAPTER FOUR

QUANTITATIVE FINDINGS AND DISCUSSION

The chapter presents the results from the analysis derived from the quantitative inquiries. Findings gathered from the different stages of the study are described in three subsections in relation to the three research questions of the present study. In order to address these three research questions, quantitative measurements were conducted which involved a series of two-way repeated-measures ANOVA. Results reported were gathered from the pretest, immediate and delayed posttests representing the context of relative feedback efficacy measured through the calculation of participants' accuracy scores on the use of subject-verb agreement, prepositions and articles over a period of time. The chapter begins with a summary of the research questions and subsequently followed by reports of the descriptive statistical data on the measurements of corrective feedback differential effects organized in accordance with the research questions.

4.1 Overview of the Research Questions and Hypotheses

The present study was guided by four research questions investigating feedback types efficacy in the uptake and retention of the targeted linguistic forms in written work. The questions are: (1) To what extent does the indirect focused corrective feedback influence the accurate use of subject-verb agreement, prepositions and articles in written work? (2) To what extent does the indirect unfocused corrective feedback influence the accurate use of subject-verb agreement, prepositions and articles in written work? (3) Is there any significant difference in the effect of indirect focused corrective feedback and indirect unfocused corrective feedback on the accurate use of subject-verb agreement, prepositions and articles in written work over a period of time? (4) What are the factors that influence the uptake and retention in indirect focused and indirect unfocused

corrective feedback in the accurate use of the targeted linguistic forms? The fourth research question will be addressed in the subsequent chapter.

Since the inquiry focused on three linguistic forms (subject-verb agreement, prepositions and articles), a pair of alternate hypotheses were posed separately for each targeted form addressing the three research questions. The hypotheses were constructed based on the evidence from previous feedback efficacy empirical findings as well as theoretical claims on the influence corrective feedback has on learners' language learning and acquisition.

Empirical evidence suggests that learners who receive corrective feedback are able to improve language accuracy in written tasks (Bitchener & Knoch, 2008b; 2009a; Chandler, 2003; 2007, Ellis et al., 2008). However, these findings have been adamantly disputed claiming that corrective feedback is not effective for learners' language learning and it may even have harmful effects on the acquisition (Truscott, 1996; 1999; 2007; 2009 Truscott & Hsu, 2008). Thus, in an attempt to further verify this issue, the hypotheses posed in the current study were tested employing focused indirect and unfocused indirect corrections. Addressing the first research question, three pairs of hypotheses were investigated with regards to the influence of focused corrective feedback on learners' uptake and retention of the accurate use of subject-verb agreement, prepositions and articles in written work. The second research question warrants for another three pairs of hypotheses to be tested concerning the unfocused corrective feedback efficacy on the three targeted linguistic structures. Longitudinal gains on the accuracy scores calculated from the pretest, immediate and delayed posttests were statistically inferred to determine effectiveness of both corrective feedback types on the accurate use of the focused forms.

Once verification on the feedback effectiveness had been established, comparison between the two feedback types were made in order to determine which

type of correction may be considered more facilitative in improving learners' language accuracy specifically referring to the use of subject-verb agreement, prepositions and articles. Each pair of null hypotheses predicted no significant difference in the accuracy score gains of the target structures and alternative hypothesis predicting results that indicate significant difference in the accuracy scores.

4.2 Data Sets and Statistical Measurements

In order to determine if parametric test can be used for the measurements of the dependent variables, a number of assumptions have to be met. One of the assumptions is that the dependent variables should be in a form of continuous scale (Pallant, 2007). Normality and homogeneity of variance are two assumptions that required testing to be carried out on the data from the pretest, immediate and delayed posttests. To run a parametric test, it is assumed that the scores of the dependent variable are normally distributed and this is measured using the Shapiro-Wilk Test (Field, 2009). This test is the most suitable for studies with small sample sizes of under 50 participants (Larson-Hall, 2010). Non-significant results indicate that the data are normally distributed. Another assumption of parametric technique is that "variability of scores" for all the experiment groups in the study should be similar or of "equal variance". Levene's test for equality of variance is used to test this assumption of which non-significant results imply that the variances of the three experimental groups are equal (Pallant, 2007).

For this purpose, preliminary assumption testing was conducted to verify normality and homogeneity of variance for each dependent variable in the pretest, immediate and delayed posttests. The accuracy scores of SVA, prepositions and articles were tabulated according to the three test times. The results of the Shapiro-Wilk test of normality are presented in Table 4.2.1 for the focused CF, Table 4.2.2 for the unfocused CF and in Table 4.2.3 for the control group. For all the three groups, the *p*-values that

were above .05 for each linguistic form, ranging from p=.057 to p=.870 imply that there was no significant difference of each dependent variable from the normal distribution, thus indicating that assumption of normality had been met.

Table 4.2.1: Shapiro-Wilk Test of Normality for the Focused CF Group in the Pretest, Immediate and Delayed Posttests

Treatment group	Linguistic forms	Statistic	df	Sig.
Pretest	SVA	.945	30	.124 (n.s.)
	Prepositions	.974	30	.668 (n.s.)
	Articles	.962	30	.356 (n.s.)
Immediate Posttest	SVA	.964	30	.394 (n.s.)
	Prepositions	.935	30	.066 (n.s.)
	Articles	.982	30	.870 (n.s.)
Delayed Posttest	SVA	.969	30	.519 (n.s.)
	Prepositions	.940	30	.091 (n.s.)
	Articles	.940	30	.091 (n.s.)

p<.05

Table 4.2.2: Shapiro-Wilk Test of Normality for the Unfocused CF Group in the Pretest, Immediate and Delayed Posttests

Treatment group	Linguistic forms	Statistic	df	Sig.
Pretest	SVA	.934	30	.061 (n.s.)
	Prepositions	.933	30	.057 (n.s.)
	Articles	.953	30	.206 (n.s.)
Immediate Posttest	SVA	.974	30	.654 (n.s.)
	Prepositions	.966	30	.437 (n.s.)
	Articles	.940	30	.090 (n.s.)
Delayed Posttest	SVA	.956	30	.237 (n.s.)
	Prepositions	.971	30	.556 (n.s.)
	Articles	.977	30	.734 (n.s.)

p < .05

Table 4.2.3: Shapiro-Wilk Test of Normality for the Control Group in the Pretest, Immediate and Delayed Posttests

Treatment group	Linguistic forms	Statistic	df	Sig.
Pretest	SVA	.977	30	.750 (n.s.)
	Prepositions	.936	30	.071 (n.s.)
	Articles	.945	30	.126 (n.s.)
Immediate Posttest	SVA	.960	30	.312 (n.s.)
	Prepositions	.954	30	.216 (n.s.)
	Articles	.970	30	.539 (n.s.)
Delayed Posttest	SVA	.960	30	.313 (n.s.)
	Prepositions	.973	30	.636 (n.s.)
	Articles	.980	30	.835 (n.s.)

p<.05

The Levene Test for homogeneity of variance presented in Table 4.2.4 reveals no significant difference in the variance among the three groups in the pretest, immediate and delayed posttests as tabulated according to the three linguistic structures. The p-values in the right-hand column which range from p=.196 to p=.923 were greater than p=.05 implying that the variances of the three experimental groups are equal.

Table 4.2.4: Levene Test for Homogeneity of Variance for the Accuracy Scores in the Pretest, Immediate and Delayed Posttests

Linguistic Form	Test Time	F	df1	df2	Sig.
SVA	Pretest	.080	2	87	.923 (n.s.)
	Immediate Posttest	.263	2	87	.769 (n.s.)
	Delayed Posttest	.819	2	87	.444 (n.s.)
Prepositions	Pretest	.044	2	87	.957 (n.s.)
	Immediate Posttest	1.266	2	87	.287 (n.s.)
	Delayed Posttest	1.254	2	87	.290 (n.s.)
Articles	Pretest	1.310	2	87	.275 (n.s.)
	Immediate Posttest	1.662	2	87	.196 (n.s.)
	Delayed Posttest	.315	2	87	.731 (n.s.)
0.5					

In order to discount the possibilities of differences in terms of linguistic competence among the groups, a two-way ANOVA was conducted to examine the interaction effects across the three treatment conditions and the three targeted linguistic forms in participants' pretest scores. A two-way ANOVA was used as the testing method since it compares the scores means between groups with three variables, which are the treatment conditions and linguistic forms. Results indicated that there was no significant difference in the pretest scores of the participants from the three treatment groups, F(4,261) = .038, p = .99. Therefore, it can be concluded that all three groups were comparatively equal before the treatment and that the linguistic forms (SVA, prepositions, articles) focused in the investigation did not have any effects on the participants' performance.

Once the required assumptions had been tested and met, further measurements were conducted with the data from the pretest (prior to the treatment), immediate posttest (immediately after the second treatment session) and delayed posttest (after a 6-week interval) in an attempt to test the hypotheses posed for the research questions. The within and between group comparison in the present study involved three variables (3 X 3) which is most appropriate to be measured using the Analysis of Variance (ANOVA) tests (Larson-Hall, 2010). For this purpose, a two-way repeated measures ANOVA was performed to address the first and the second research questions in determining whether there was a significant difference in the longitudinal gains of the accuracy scores in the three target structures. The independent variable for the test was the test times (pretest, immediate and delayed posttests) and the three treatment groups, while the dependent variable is the scores of each targetted structure gathered from the three tests. An alpha level was set *a priori* at .05. For the post hoc tests using Bonferroni method, adjustment to the alpha value was made to .017 in order to control for type 1 error. Type 1 error is the inclination to reject the null hypothesis by inaccurately implying statistical

significant difference between group comparisons (Pallant, 2007). The reason why there is a need to control for Type 1 error is to ensure that the results would not be misinterpreted as significant when it is actually not significant. Adjustment is made by dividing the alpha value (.05) by the number of comparisons and for the purpose of the present study there were three pairwise comparisons made to identify the source of significance (.05/3), hence the .017 alpha value (Larson-Hall, 2010).

To address the third research question, which examined the between-group comparisons, a two-way repeated-measures ANOVA was conducted to determine if there was any significant difference among the three treatment groups in the accuracy scores of the three targeted structures across the three test times. The tests were run separately for the three target structures. The independent variables for the tests were the three treatment conditions and the test times, while the dependant variable was the accuracy scores in subject-verb agreement, prepositions and articles used in written work. An alpha level of .05 was set for these tests. Post hoc comparisons using Bonferroni test were calculated to identify the source of significance since the Bonferroni method is suggested to be the most appropriate test to use in order to control for type 1 error when testing a small of number of comparisons (Fields, 2009). Adjustment to the alpha value was made to .017 in order to control for type 1 error.

4.2.1 Statistical Data for the Control Group in the Score Gains of Subject-Verb Agreement, Prepositions and Articles

Results from the two-way repeated-measures ANOVA test that was carried out to determine the control group's scores means differences across three test times indicate that there was no statistical significant difference for all three target structures. The performance of the participants for SVA showed no significant difference from the pretest (M = 61.9, SD = 11.74) to the immediate posttests (M = 61.9, SD = 11.74) to the immediate posttests (M = 61.9).

= 62.75, SD = 10.95) as well as to the delayed posttest (M = 64.4, SD = 10.49), $F(2, 58) = 1.18 \ p = .32$. Results also indicate no significant difference for prepositions, with (M = 71.13, SD = 9.99) in the pretest to the immediate posttest (M = 70.37, SD = 8.19) as well as to the delayed posttest (M = 70.2, SD = 8.21), F(2, 58) = .26, p = .77. There was also no significant difference for the articles scores means from the pretest (M = 68.23, SD = 11.41) to the immediate posttest (M = 69.2, SD = 9.46) and to the delayed posttest (M = 66.87, SD = 9.35), F(2, 58) = .86, p = .40 for articles. Table 4.2.1.1 shows the descriptive statistics for the control group across three test times.

Table 4.2.1.1: Tests Scores Means (in Percentage) and Standard Deviations of the Control Group (n=30)

Linguistic Forms	Pre	Pretest		Immediate Posttest		Delayed Posttest	
	<i>M</i> (%)	SD	<i>M</i> (%)	SD	<i>M</i> (%)	SD	
Subject-verb Agreement	61.90	11.74	62.57	10.95	64.40	10.49	
Prepositions	71.13	9.99	70.37	8.19	70.20	8.21	
Articles	68.23	11.41	69.20	9.46	66.87	9.35	

The plotted means in Figure 4.2.1 illustrate a pattern that shows no improvement was demonstrated in the three target structures from the pretest to immediate and delayed posttests.

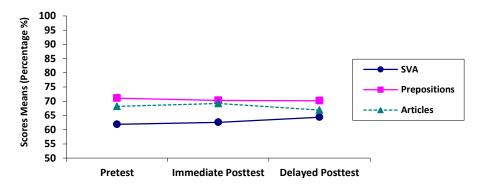


Figure 4.2.1 : Scores Means of the Control Group across Three Test Times

These statistical results indicated that learners that did not receive corrective feedback showed no significant improvement in the accurate use of the three targeted linguistic forms in written work over a period of time.

4.2.2 Results for Research Question 1: Focused CF Efficacy in the Score Gains of Subject-Verb Agreement, Prepositions and Articles

In order to address the first research question, two pairs of hypotheses were constructed predicting learners that received focused indirect corrective feedback would improve on the accurate use of subject-verb agreement, prepositions and articles in written work. The ANOVA test revealed that the scores means differed statistically significantly across the three test times for all three targetted structures, F(2, 58) = 11.48, p < .05 for subject verb-agreement, F(2, 58) =11.25, p < .05 for prepositions and F(2, 58) = 11.23, p < .05 for articles. In order to locate the source of significance, post hoc test using the Bonferroni correction with alpha value adjusted at .017 was conducted. Results showed that there was a significant difference in the scores means from the pretest (M = 61.73, SD = 12.21) to the immediate posttest (M = 72.87, SD = 11.42), F(2, 28) = 12.81, p =.000, as well as to the delayed posttest (M = 71.6, SD = 10.22), F(2, 28) =12.81, p = .004 for SVA. Results also showed a significant difference in the scores means for the accurate use of prepositions from the pretest (M = 71.04,SD = 9.63) to the immediate posttest (M = 78.8, SD = 9.55), F(2, 28) = 10.83, p= .001 and to the delayed posttest (M = 78.27, SD = 9.28), F(2, 28) = 10.83, p =.001. A significant difference was also found for the scores means of articles from the pretest (M = 67.9, SD = 9.77) to the immediate posttest (M = 76.73, SD= 8.15), F(2, 28) = 11.12, p = .000 as well as to the delayed posttest (M = 75.23, SD = 9.11), F(2, 28) = 11.12, p = .005. These results indicate that participants in the FCF group were able to take up the accurate use of SVA, prepositions and articles as shown in the immediate posttest and this performance was retained over a period of time as demonstrated in the delayed posttest. Table 4.2.2.1 tabulated the descriptive statistics of the three targetted structures for the FCF indirect group.

Table 4.2.2.1 : Tests Scores Means (in Percentage) and Standard Deviations of the Focused CF Group (n=30)

	Pre	Pretest Immediate Posttest		e Posttest	Delayed Posttest	
Linguistic Forms	<i>M</i> (%)	SD	<i>M</i> (%)	SD	<i>M</i> (%)	SD
Subject-verb Agreement	61.73	12.21	72.87	11.42	71.60	10.22
Prepositions	71.04	9.63	78.80	9.55	78.27	9.28
Articles	67.90	9.77	76.73	8.15	75.23	9.11

The plotted graph in Figure 4.2.2 illustrates the increased pattern of the scores means over a period of time. It can be seen that participants that received focused indirect corrective feedback showed an increase in the scores means and maintained the significant difference from the pretest scores to the delayed posttest for all three target structures.

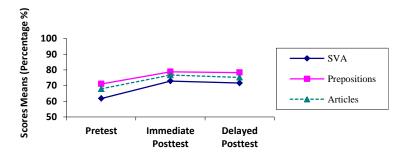


Figure 4.2.2: Scores Means of the FCF Group across Three Test Times

The statistical results imply that the longitudinal gains comparing the scores in the pretest, immediate and delayed posttests had statistically indicated positive influence of the focused indirect corrective feedback in the uptake and retention of accuracy in the use of three target structures. Learners who received the treatment demonstrated significant improvement in accuracy gains in the immediate posttest and they were able to retain accuracy over a period of time. Similar results were also found in the Ellis et al. (2008) study of which the focused group showed consistent improvement in the accurate use of articles in written task from the pretest to the immediate and delayed posttests. Even though in the immediate posttest results did not reach significance, the scores means of the focused group continued to rise reaching significance in the delayed posttest, thus, it can be implied that retention was evident since significant result was achieved in the delayed posttest compared to the scores in the pretest.

Similarly, the Bitchener & Knoch (2010) study yielded results indicating facilitative effects of the focused CF when it concerns the use of English articles in written work. While the Ellis et al. (2008) study compared the focused and unfocused CF types, the Bicthener & Knoch study compared two direct CF types and an indirect correction. In contrast to the present study, the group receiving the indirect CF in the Bitchener & Knoch study was not able to retain accuracy after a 10-week interval between the immediate posttest and the delayed posttest. In fact, a slight decrease was found in the accuracy scores means of which resulted in no significant difference found between the indirect group and the control group that did not receive CF for their written work. Bitchener & Knoch suggested that metalinguistic explanation that was provided with the written CF helped those advanced learners to retain accuracy more than those who received indirect feedback which merely indicates where the errors have occurred. They further recommended teachers who preferred indirect feedback to also provide metalinguistic explanation to assist learners in making accurate corrections.

Nevertheless, the methodological differences between the present study and the Bitchener & Knoch study should be noted. One of the direct CF groups in the Bitchener & Knoch study had an additional 15 minutes of oral conference with the instructor discussing the CF that they have been provided with. The indirect CF group was only provided with a few minutes after they received the feedback to have a look at their work. Since that study was to test whether learners would be able to improve accuracy with only one treatment session, the indirect group may be of a bit disadvantage here. The other direct group was provided with metalinguistic explanation on the article errors committed. Since Chandler (2003) asserted that learners need to attend to the CF provided in order for it to be effective, there is a possibility that the indirect group was not provided with sufficient opportunity to attend to the CF provided, thus making it ineffective in the long run.

On the other hand, the present study, even though indirect CF was employed in combination with both focused and unfocused CF types, increase in accuracy was evident as shown in the statistical results above. Participants were given ample opportunity to attend to the feedback in two treatment sessions through the collaborative dialogue that they have to engage in. As proven in previous studies (e.g. Ferris, 2006; Ferris & Roberts, 2001; Lalande, 1982) learners attending to indirect CF tend to be engaged in "guided learning and problem-solving" processes which eventually facilitate increased accuracy over a period of time.

4.2.3 Results for Research Question 2: Unfocused CF Efficacy in the Score Gains of Subject-Verb Agreement, Prepositions and Articles

The second research question attempted to determine if there was any significant difference in the accuracy scores gains by learners who received unfocused indirect corrective feedback on the use of subject-verb agreement, prepositions and articles in written work. The ANOVA test conducted verified that the scores means differed statistically significantly in the three test times for the three targetted structures, F(2, 58) = 15.052, p < .05 for subject-verb agreement, F(2, 58) = 15.05258) = 13.109, p < .05 for prepositions and F(2, 58) = 27.303, p < .05 for articles. Post hoc test using the Bonferroni correction with alpha value adjusted at .017 was used to locate the source of significance. Results show significant differences in the scores means for SVA from the pretest (M = 62.7, SD = 12.13) to the immediate posttest (M = 73.73, SD = 11.89), F(2, 28) = 13.25, p = .000 as well as to the delayed posttest (M = 74.00, SD = 11.89), F(2, 28) = 13.25, p =.000. Results also showed a significant difference in the scores means for the accurate use of prepositions from the pretest (M = 72.87, SD = 9.43) to the immediate posttest (M = 81.77, SD = 7.09), F(2, 28) = 11.88, p = .000 and to the delayed posttest (M = 81.30, SD = 6.81), F(2, 28) = 11.88, p = .001. A significant difference was also found for the scores means of articles from the pretest (M = 68.97, SD = 9.39) to the immediate posttest (M = 82.03, SD = 6.63), F(2, 28) = 22.87, p = .000 as well as to the delayed posttest (M = 79.37, SD = 9.11), F(2, 28) = 22.87, p = .000. These results indicate that participants in the UFCF group were able to take up the accurate use of SVA, prepositions and articles as shown in the immediate posttest and this performance was retained over a period of time as demonstrated in the delayed posttest.

This finding leads to a conclusion that learners that received unfocused indirect corrections managed to improve and retain accuracy in the use of the three targetted structures. Table 4.2.3.1 presents the descriptive statistics of the three targetted structures for the focused indirect correction group.

Table 4.2.3.1: Tests Scores Means (in Percentage) and Standard Deviations of the Unfocussed CF Group (n=30)

Linguistic Forms	Pret	test	Immediate Posttest		Delayed Posttest	
	<i>M</i> (%)	SD	<i>M</i> (%)	SD	<i>M</i> (%)	SD
Subject-verb Agreement	62.70	12.13	73.73	11.89	74.00	11.89
Prepositions	72.87	9.43	81.77	7.09	81.30	6.81
Articles	68.97	9.39	82.03	6.63	79.37	7.71

The line graph in Figure 4.2.3 plots the scores means over a period of time for the unfocused indirect treatment group. An increase pattern can be seen for the three targetted structures indicating that learners were able to improve and retain accuracy across the three test times.

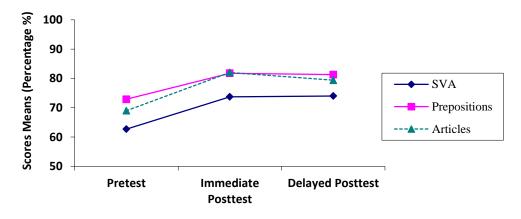


Figure 4.2.3: Scores Means of the UFCF Group across Three Test Times

The increase in the scores means can serve as evidence for the facilitative influence the unfocused indirect CF has on the learners' uptake of the targetted

structures accurate use. Significant longitudinal gains demonstrated in the data of the delayed posttest indicate learners' retention of accuracy of the focused forms over a period of time.

Although the result of the present study seems to be showing a positive effect of the unfocused CF on learners' increase in linguistic accuracy over a period of time, the Truscott & Hsu (2008) study which had also employed unfocused indirect CF has proven otherwise. Findings of that study show that learners were only able to improve language accuracy in revision task, but this effect was not extended to new written work which may be considered as actual learning. The posttest administered a week later yielded results that indicated no differences in error reduction between the treatment group and the control group which was not provided with corrective feedback, but completed self-revision for the first writing task like the treatment group. Thus, Truscott & Hsu concluded that corrective feedback does not have a long term effect in helping learners increase accuracy in written work.

Despite this persistent argument on CF ineffectiveness, Hartshorn et al. (2010) taking a stance that CF can indeed help learners improve language accuracy came up with a dynamic written corrective feedback (WCF thereafter) approach to deal with learners language learning development. The study compared the dynamic WCF approach to the traditional writing instructions measuring the influence in writing accuracy, rhetorical competence, fluency and complexity. Findings revealed that the dynamic WCF employing indirect unfocused CF provided to the treatment group was able to help learners to be significantly more accurate in the posttest than the participants that went through the traditional writing instructions. It should be noted however that learners in the conventional group were also provided with corrective feedback on their

written work although it was not explained what they did with the feedback. Learners in the treatment group attended to the feedback by listing the errors made and revising their drafts for submission until the written work has become error free. As mentioned in previous studies (e.g. Chandler, 2003) as well as findings described in the present study, apart from providing feedback, the fact that learners have to attend to the CF is integral in ensuring its effectiveness.

A more recent research employing unfocused CF reported findings that support the results of the present study. The Van Beuningen et al. (2012) study measured the differential effects between the comprehensive direct and indirect CF types and their long term influence on linguistic accuracy by Dutch second language learners. Also negating Truscott's (1996) claim on CF ineffectiveness, the Van Beuningen et al. study produced results that support CF facilitative influence, more significantly the indirect CF efficacy in both short term and long term language accuracy development without compromising learners' language fluency and complexity. As in many studies employing unfocused CF (e.g. Hartshorn et al. 2010; Storch & Wigglesworth, 2010), the Van Beuningen et al. (2012) study describes the overall increase in the accuracy of linguistic forms in the learners written work. Since the aim of these studies was mainly to compare other aspects of the CF, such as direct or indirect CF efficacy (e.g. Storch & Wigglesworth, 2010) and effects of CF revision and new writing tasks (e.g. Truscott & Hsu, 2008), specific details of certain linguistic forms were not provided. The description emphasized more on the effects of the CF on comprehensive linguistic features, without specifically focusing on the progress of the learners on certain linguistic forms or a category of form. The present study, however, in order to show the differential effects of the focused and unfocused corrections, have selected three linguistic forms (SVA, prepositions and articles) to plot the pattern of development resulting from these two CF types.

4.2.4 Results for Research Question 3: Differential Effects of Corrective Feedback Types Efficacy on the Accuracy Score Gains of Subject-Verb Agreement, Prepositions and Articles

A two-way repeated-measures ANOVA was conducted to examine the two feedback types efficacy on the accurate use of subject-verb agreement, prepositions and articles in written work. The measurements were run to assess three hypotheses posed to address the third research questions of the present study. The hypotheses (H₀₇, H₀₈, H₀₉) predicted that there were no significant differences in the accuracy scores gains of subject-verb agreement, prepositions and articles between the group that received unfocused indirect feedback and the group that received focused indirect corrections.

4.2.4.1 Differential Effects of Corrective Feedback Types Efficacy on the Accuracy Score Gains of Subject-Verb Agreement

Data from the between-subjects effects tests show that there was a statistically significant difference among the condition groups in the accuracy scores means on the use of subject-verb agreement, F(2,261) = 9.947, p < .05. Post-hoc comparison using Bonferroni test with alpha value adjusted at .017 was computed to identify which group comparisons contributed to the statistical significance. Data revealed that significant difference was found in the immediate posttest between the control group (M = 62.57, SD = 10.95) and the FCF group (M = 72.87, SD = 11.42), F(2,261) = 8.819, p = .001, as well as with the UFCF group (M = 73.73, SD = 11.89), F(2,261) = 8.819, p = .000. However,

there was no significant difference in the scores means in the immediate posttest between the FCF group and UFCF group, F(2,261) = 8.819, p = .770. Results also showed that there was a significant difference in the scores means in the delayed posttest. However, this statistical significant data were only contributed by the difference between the control group (M = 64.4, SD = 10.49) and the FCF group (M = 71.6, SD = 10.22), F(2,261) = 5.704, p = .013 as well as with the UFCF group (M = 74.0, SD = 11.89), F(2,261) = 5.704, p = .001. There was no significant difference in the scores means in the delayed posttest between the FCF group and UFCF group F(2,261) = 5.704, p = .418.

Table 4.2.4.1 shows the descriptive statistics of the focused, unfocused and control groups across three test times in the use of subject-verb agreement. From the table below, the scores means of both FCF and UFCF groups indicate that the participants' performance in the immediate posttest to delayed posttest had been constant over a period of 6 weeks.

Table 4.2.4.1: Tests Scores Means (in Percentage) and Standard Deviations on the Accurate Use of SVA

Groups	Pretest		Immediate Posttest		Delayed Posttest	
	<i>M</i> (%)	SD	<i>M</i> (%)	SD	<i>M</i> (%)	SD
Focused CF $(n = 30)$	61.73	12.21	72.87	11.42	71.60	10.22
Unfocused CF $(n = 30)$	62.70	12.13	73.73	11.89	74.00	11.89
Control $(n = 30)$	61.90	11.74	62.57	10.95	64.40	10.49

Figure 4.2.4.1 plots the increase pattern of the accuracy scores means of the three condition groups on the use of subject-verb agreement. The uptake of accuracy is clearly shown in the immediate posttest and retained in the delayed posttest for both focused and unfocused groups. A considerable gap between the treatment groups and the control group can be clearly seen in the plotted graph. However, the difference between the focused and unfocused group was not

significant indicating that both groups performed more or less the same in both immediate and delayed posttests.

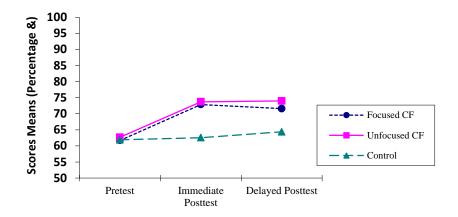


Figure 4.2.4.1: Scores Means of SVA of the Three Condition Groups

The result leads to the conclusion that there was no significant difference between learners that received indirect unfocused feedback and the learners that received indirect focused feedback in the accurate use of subject-verb agreement in written work over a period of time, thus the null hypothesis (H₀₇₎ theorizing that there was no significant difference in the accuracy scores on the subject verb-agreement between the learners who received indirect focused CF and the learners who received indirect unfocused CF is accepted.

Ferris (2006) reported similar findings demonstrating the effectiveness of indirect unfocused CF in increasing the accuracy of subject-verb agreement in written work. The result suggests that long term improvement was evident for "verb category" which included subject-verb agreement even though the increased accuracy rate for revisions was not as high as other linguistic features tabulated from four writing tasks. Categorising subject-verb agreement as "treatable" error which is strictly fixed in a systematic rule, Ferris mentioned that indirect corrections seem to be effective in helping learners increase accuracy

especially when they are engaged in the "guided learning and problem solving" processes while attending to the feedback provided. The present study suggests that it was in fact the extensive engagement that triggers noticing and hypothesis testing that actually enhanced the learning process. The metalinguistic reflections that occurred as the result of noticing and hypothesis testing helped learners internalize new linguistic knowledge in their interlanguage system. This finding will be further elaborated in the next chapter which describes results from the qualitative inquiries from the LREs analysis and interviews.

Even though there was no comparison made between unfocused and focused CF, findings from the Hartshorn et al. (2010) study also suggest facilitative influence of the unfocused CF in helping learners improve language accuracy in written work. Unlike the study reported by Ferris, even though subject-verb agreement was also one of the linguistic forms marked in the written work, details of the progress of this specific feature were not provided. Nevertheless, supporting the findings of the present study, overall results indicate effectiveness of the unfocused CF which is used as a common classroom practice.

4.2.4.2 Differential Effects of Corrective Feedback Types Efficacy on the Accuracy Score Gains of Prepositions

To address the third research question, the null hypothesis (H_{08}) predicted that learners that received focused corrections and learners that received unfocused corrections would not differ significantly in their accuracy scores of prepositions used in written work in both test times (immediate and delayed posttests).

The ANOVA test conducted generated data from the between-subjects effects tests statistically suggesting that there was a significant difference

between the treatment groups in the accuracy scores means on the use of prepositions, F(2,261) = 19.506, p<.05. Post-hoc comparisons using Bonferroni test with alpha value adjusted at .017 were computed to identify which group comparisons contributed to the statistical significance. Results showed that significant difference was found in the immediate posttest between the control group (M = 70.37, SD = 8.19) and the FCF group (M = 78.8, SD = 9.55), F(2,261) = 13.11, p = .001, as well as with the UFCF group (M = 81.77, SD = 7.09), F(2,261) = 13.11, p = .000. However, there was no significant difference in the scores means in the immediate posttest between the FCF group and UFCF group, F(2.261) = 8.819, p = .08. Results also showed that there was a significant difference in the scores means in the delayed posttest. However, this statistical significant data were only contributed by the difference between the control group (M = 70.2, SD = 8.21) and the FCF group (M = 78.27, SD = 9.28), F(2,261) = 12.88, p = .000 as well as with the UFCF group (M =81.3, SD = 6.81), F(2,261) = 12.88, p = .000. There was no significant difference in the scores means in the delayed posttest between the FCF group and UFCF group F(2,261) = 12.88, p = .181.

Table 4.2.4.2 shows the descriptive statistics of the focused, unfocused and control groups across three test times in the use of prepositions. From the table below, the scores means of both focused and unfocused groups indicate that the participants' accuracy performance on the accurate use of prepositions from the immediate posttest to delayed posttest had remained constant over a period of 6 weeks.

Table 4.2.4.2 : Tests Scores Means (in Percentage) and Standard Deviations on the Accurate Use of Prepositions

Crowns	Pretest		Immediate Posttest		Delayed Posttest	
Groups	M (%)	SD	M (%)	SD	M (%)	SD
Indirect Focused ($n = 30$)	71.04	9.63	78.80	9.55	78.27	9.28
Indirect Unfocused ($n = 30$)	72.87	9.43	81.77	7.09	81.30	6.81
Control $(n = 30)$	71.13	9.99	70.37	8.19	70.20	8.21

The line graph in Figure 4.2.4.2 illustrates the difference in the scores means among the three condition groups on the use of prepositions across the three test times. The increase in accuracy is clearly shown for the FCF and UFCF groups in both immediate posttest and delayed posttest. The gap in the plotted lines between the treatment groups and the control group indicates significant difference in the accuracy scores means. However, there was no significant difference between the FCF and UFCF groups in both test times implying that both groups managed to take up and retain accuracy at an almost similar pace.

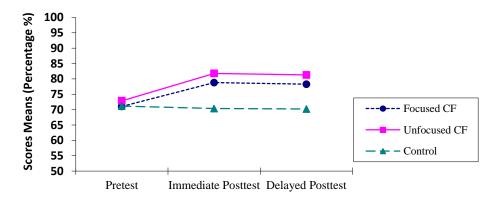


Figure 4.2.4.2 : Scores Means of Prepositions of the Three Condition Groups

Findings of this analysis imply that the null hypothesis (H₀₈) is accepted because statistical evidence points out that there was no significant difference between learners that received unfocused corrections and learners that receive focused

corrective feedback in the accuracy scores gains of prepositions used in written work.

This result was however different from the findings in the Bitchener et al. (2005) study. Focusing on also three linguistic forms comparing two types of direct corrective feedback, results indicate fluctuating effects on the participants' performance across four writing tasks with regards to the use of prepositions. The accuracy scores gains improved significantly for the use of articles and simple past tense resulting from the direct written CF with a 5-minute-conference session. Attributing prepositions as "untreatable" structure which is more "idiosyncratic" than the former two, the improvement in accuracy was not evident and the feedback types seemed to not have much influence in improving accuracy over a period of time.

However, in comparison to the present study, the Bitchener et al. study employed direct CF and there was no description provided on what the group that received the CF without the oral conference session did with the feedback. This matter again relates to the issue of attending to the feedback and sufficient opportunity to be extensively engaged in problem solving process (Storch & Wigglesworth, 2010). Having been provided with direct CF, the participants in the treatment groups with or without the oral conference session may not have much chance to deliberate extensively over the feedback and the errors that they committed, thus reducing the chance of internalising new and scaffolded knowledge into their interlanguage system. In relation to the present study, even though there was no significant difference between the FCF and UFCF groups in the accurate uses of prepositions in written work over a period of time, there was a significant evidence of the increased accuracy for both treatment groups outperforming the control group.

The Sheen et al. (2009) study which had also compared differential effects of focused and unfocused CF measuring the development of the English articles uses reported findings that indicated a more positive effect of focused CF. While focused CF significantly outperformed other condition groups (unfocused, writing practice and control), the unfocused CF group did not seem to show much increase in accuracy from the pretest to both immediate and delayed posttests. In fact, the difference in the scores means between the unfocused group and the control group did not reach significance. Sheen's study also reported the results of the learners' progress in five grammatical structures in order to compare the effects of the two CF types. Similar to the articles uses, the focused group outperformed other conditions groups and there was no significant difference between the unfocused and the control groups in the scores means in the immediate and delayed posttests. Even though the results were presented by describing the combined data of the scores means of the five grammatical structures including locative prepositions, the pattern was evidently inclining towards focused CF as being more facilitative compared to unfocused group.

These findings are different from the results of the present study indicating no significant difference between the focused group and unfocused group in increasing linguistic forms accuracy, of which prepositions were one of the targeted features. The language-related episodes (LREs) analysis suggest that learners receiving either focused or unfocused CF were both able to increase accuracy provided that they attended to the CF provided that they exercised the three output hypothesis functions extensively during the collaborative dialogue deliberating over the corrective feedback. This finding will be further elaborated chapter five of which the qualitative analysis results are presented.

4.2.4.3 Differential Effects of Corrective Feedback Types Efficacy on the Accuracy Score Gains of Articles

The null hypothesis (H_{09}) predicted that learners that received focused corrections and learners that received unfocused corrections would not differ significantly in their accuracy scores of articles used in written work over a period of time. In order to assess this assumption, a two-way ANOVA measurement was conducted. Data from the between-subjects effects tests statistically suggesting that there was a significant difference between the condition groups in the accuracy scores means on the use of articles, F(2,261) = 20.822, p<.05. Post-hoc comparisons using Bonferroni test with alpha value adjusted at .017 were computed to identify which group comparisons contributed to the statistical significance.

Data revealed that significant difference was found in the immediate posttest between the control group (M = 69.2, SD = 9.46) and the FCF group (M = 76.73, SD = 8.15), F(2,261) = 15.1, p = .001, as well as with the UFCF group (M = 82.03 SD = 6.63), F(2,261) = 15.1, p = .000. However, there was no significant difference in the scores means in the immediate posttest between the FCF group and UFCF group, F(2,261) = 15.1, p = .03. Results also showed that there was a significant difference in the scores means in the delayed posttest. However, this statistical significant data were only contributed by the difference between the control group (M = 66.87, SD = 9.35) and the FCF group (M = 75.23, SD = 9.11), F(2,261) = 14.73, p = .000 as well as with the UFCF group (M = 79.37, SD = 7.71), F(2,261) = 14.73, p = .000. There was no significant difference in the scores means in the delayed posttest between the FCF group and UFCF group F(2,261) = 14.73, p = .08.

Table 4.2.4.3 shows the descriptive statistics of the focused, unfocused and control groups across three test times in the use of articles. From the table below, the scores means of both focused and unfocused groups indicate that the participants had managed to remain constant in the on the accurate use of articles from the immediate posttest to delayed posttest over a period of 6 weeks.

Table 4.2.4.3: Tests Scores Means (in Percentage) and Standard Deviations on the Accurate Use of Articles

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Groups	Pretest		Immediate Posttest		Delayed Posttest	
	M (%)	SD	M (%)	SD	M (%)	SD
Indirect Focused $(n = 30)$	67.90	9.77	76.73	8.15	75.23	9.11
Indirect Unfocused $(n = 30)$	68.97	9.39	82.03	6.63	79.37	7.71
Control $(n = 30)$	68.23	11.41	69.20	9.46	66.87	9.35

The line graph in Figure 4.2.4.3 plots the difference in the scores means among the three condition groups on the use of articles across the three test times. The increase in accuracy is evident for the FCF and UFCF groups in both immediate posttest and delayed posttest. The gap in the plotted lines between the treatment groups and the control group indicates significant difference in the accuracy scores means. However, there was only as slight difference between the FCF and UFCF group in both test times and the statistical information revealed that significant difference occurred in the immediate posttest.

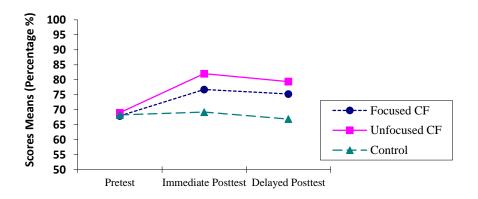


Figure 4.2.4.3 : Scores Means of Articles of the Three Condition Groups

It can be concluded that there was no significant difference between learners that received indirect unfocused feedback and the learners that received indirect focused feedback in the accurate use of articles in written work as measured in the immediate and delayed posttests. This result is similar to the Ellis et al. (2008) study that compared the efficacy of focused and unfocused CF on the accurate use of articles in written narrative. In the long run, both treatment groups receiving either focused or unfocused direct CF outperformed the control group with no significant difference between the two treatment groups. Even though significance was not reached, there was a trend indicating that participants in the focused group had demonstrated constant increase in the accuracy scores means of articles uses over a period of time. Another study that compared the focused and unfocused CF efficacy in helping learners improve the accurate use of articles was the Sheen et al. (2009) study. Findings from this study indicated that the focused group showed greater increase in accuracy of articles uses in both immediate and delayed posttests compared to the unfocused group. Nevertheless, there are several differences between these two studies and the present study that should be observed in comparing the results.

Firstly, the Sheen et al. and the Ellis et al. studies employed direct corrections to compare the differential effects of focused and unfocused CF. The

present study integrated indirect correction with both focused and unfocused CF in order to provide more opportunity for the participants to deliberate in the collaborative dialogue during the treatment sessions. Secondly, in the Ellis et al. study, participants were not asked to do revision to the CF provided. Even though in the participants in the Sheen et al. study were required to write the revisions for the written work, in both of these studies, participants were only required to look at the feedback on their own. Ferris (2006) and Chandler (2003) emphasized the importance of learners to attend to the feedback provided in order for the CF to be meaningful and effective. In fact, Storch & Wigglesworth (2010) pointed out that extensive engagement in the deliberation of the feedback may have influenced greater uptake of the corrective feedback.

In light of this discussion, the present study had included collaborative dialogue as an element to maximize the facilitative effects of the CF on learners' language accuracy. The addition of collaborative dialogue and the use of indirect CF have produced results that are different from both the Ellis et al. and Sheen et al. studies in comparing differential effects of focused and unfocused CF on the accurate use of articles in written work.

Chapter Summary

Three research questions explored in the study required quantitative analysis to be carried out. Parametric tests employing ANOVA measurements were conducted to test nine hypotheses posed for the three research questions. Findings gathered have ascertained the following summarised results.

Research question 1: To what extent does the indirect focused corrective feedback influence the accurate use of subject-verb agreement, prepositions and articles in written work?

Results indicate that the indirect focused corrective feedback has significant facilitative influence on the accurate use of subject-verb agreement, prepositions and articles in written work. Statistical descriptions suggest that learners that received indirect focused corrections gained significant increase in the accuracy scores from the pretest to the immediate posttest and later retained the accuracy scores at similar level in the delayed posttest after a six-week interval. To sum up, these results supported the alternative hypotheses (H_{A1} , H_{A2} . H_{A3}) posed for the first research question.

Research question 2: To what extent does the indirect unfocused corrective feedback influence the accurate use of subject-verb agreement, prepositions and articles in written work?

Findings suggest that learners that received indirect unfocused corrective feedback improved significantly in the accuracy scores gains from the pretest to the delayed posttest and retained the significant gains in the delayed posttest. These results provided evidence for rejecting the null hypotheses and rendered support for the alternative hypotheses (H_{A4}, H_{A5}, H_{A6}) which implied improvement demonstrated through constructive influence of the unfocused corrections on learners' accuracy in the use of subject-verb agreement, prepositions and articles in written work.

Research question 3: Is there any significant difference in the effect of indirect focused corrective feedback and indirect unfocused corrective feedback on the accurate use of subject-verb agreement, prepositions and articles in written work over a period of time?

Statistical descriptions suggest that even though both treatment groups (FCF and UFCF) outperformed the control group in the immediate and delayed posttests, there was no significant difference between the FCF group and UFCF group in the accuracy scores gains for the use of subject-verb agreement, prepositions and articles. The null hypotheses (H_{07} , H_{08} and H_{09}) were accepted assuming no significant difference between

the FCF and UFCF in the accurate use of subject-verb agreement, prepositions and articles.

This chapter presents results of the quantitative analyses addressing the three research questions posed to investigate the extent of focused and unfocused CF efficacy as well as differential effects in facilitating uptake and retention of three linguistic forms accuracy over a period of 12 weeks. The next chapter discusses findings of the qualitative inquiries addressing the fourth research question which is to identify factors that influence the uptake and retention of the corrective feedback focusing on subject-verb agreement, prepositions and articles. The discussion describes factors observed from the analyses of the Language-related Episodes (LREs) and the interviews with selected participants.

CHAPTER FIVE

QUALITATIVE RESULTS

5.0 Overview

This chapter presents the findings of the qualitative inquiries acquired through the Language-related Episodes (LREs) and interviews analyses. In the previous chapter, it has been established that learners receiving either focused or unfocused indirect corrective feedback showed significant increase in the accuracy scores of the subject-verb agreement, prepositions and articles in written work over a period of time. Statistical results also indicate that in general, there was no significant difference between the two treatment groups in the uptake and retention of the CF provided for the three targeted linguistic forms. Thus, this chapter discusses qualitative findings that may render some insights as to why and how the CF facilitated the learners in improving accuracy in written work. In order to achieve this, factors that may have influenced the uptake and retention were identified from the analyses of the LREs as well as interviews exploring the issue from the learners' perspectives.

According to White (2003), examining data at individual level is a 'welcome trend' which allows possibility of exploring more information on the individual linguistic competence. Hillocks (1995) also suggested that "we need to know what students do as writers, for both planning and evaluation of our own teaching." (Hillocks, 1995, p.132). In relation to the different linguistic structures that were targeted in the study, similarly, Bitchener et al. (2005) discussed the individual performance factor that may have influenced the notable variation in the accuracy scores across four writing tasks specifically concerning the use of prepositions. Therefore, for this purpose, the present study analysed the LREs and the interviews to examine the factors that may

have influenced uptake and retention of corrective feedback on SVA, prepositions and articles in written work.

The qualitative investigation reported in this chapter which answers the fourth research question that attempts to identify factors influencing uptake and retention in the use of focused and unfocused indirect corrections on the three target structures are presented according to the findings from both the LREs and the interview analyses. The first part of this section reports findings gathered from the language-related episodes analyses specifically grounded on Swain's (2005) Output Hypothesis. The subsections are organized according to the three main identified factors guided by functions of the Output Hypothesis; learners' focus on ungrammatical uses, hypothesizing the corrections and post-response reflections. Frequency data and interview excerpts are also presented to illustrate the relationship between the process of output gathered from the LREs occurrence, the influencing factors and the evidence of uptake and retention in the posttests. Swain emphasized that studies grounded on the Output Hypothesis should focus more on the learners' language acquisition resulting from the language output. In order to address this concern, the findings of the investigation in the present study are presented to highlight the emphasis of language output as one of the essential elements in the process in language learning and acquisition.

Other relevant significant findings acquired from the interview analysis are presented in the second part of this section. Thematic categorizations of findings are described in terms of the linguistic factors and the task-related factors in relation to the strategies and the processes that participants employed in responding to the feedback provided. The explanation of this part is organized to link the identified influencing factors to the Output Hypothesis of which the present study is grounded on. Among others, the findings will reveal affective factors such as learners' attitudes towards the

CF and the pair talk, learning goals and language conventions and beliefs that influence the uptake and retention of the corrective feedback.

5.1 Findings of the Language-Related Episodes (LREs) Analysis

LREs have mostly been analysed and discussed from the perspectives of sociocultural theory due to its interactional nature (e.g. Storch & Wigglesworth, 2010; Swain & Lapkin, 1998). The microgenetic occurrence, which is described as the capability to learn and continuously develop (Mitchel & Myles, 2004), gained through collaborative dialogue focusing on language forms are considered evidence of learning taking place. In the present study, the attempt to acquire evidence of uptake and retention was made through the analysis of the collaborative dialogue guided by the Output Hypothesis functions (noticing, hypothesis testing and metalinguistic/reflective), with reference to the statistical figures gathered from the quantitative inquiry. By thoroughly exploring the LREs gathered at individual level, assumptions on strategies and factors that influence effectiveness in the uptake and retention were made.

Data for the analysis were gathered from three sources. The first set of the data were the two feedback types (focused and unfocused CF) provided for the participants writing tasks 1 and 2 on the three targeted linguistic forms (Refer to Chapter 3, pp. 79-88 for further details). Secondly, the participants' written work, which comprises writings from tasks 1 and 2 as well as the writings from immediate and delayed posttests were analysed for uptake and retention. The third source of the data was the transcribed collaborative dialogues from the two treatment sessions. All relevant episodes for both focused and unfocused corrections were examined and for the UFCF group, the corrective feedback provided for the three targeted linguistic features were identified. The identified LREs were coded into the following categorization:

- i) Linguistic focus SVA/ prepositions/ articles
- ii) Resolution correctly/incorrectly/unresolved
- iii) Focus perfunctory/ substantive
- iv) Hypothesising Corrections limited/ extensive

v) Reflections

The microgenetic analysis involved comparisons on the kinds of engagement in the deliberations over the corrective feedback provided on the three linguistic forms by learners from both condition groups. These episodes were indicators of learners' strategies to improve accuracy in written tasks. The analysis of these LREs coded into the above categories were indications of reflections of the learners' linguistic knowledge, which relates to the third function of the Output Hypothesis, metalinguistics. Utilising corrective feedback provided, learners noticed and tested hypothesis and when they were able to make corrections and used the correct forms in subsequent writing tasks, this would suggest reflections and internalisation of the scaffolded linguistic knowledge had taken place.

In order to examine the retention of the corrective feedback on the three linguistic forms, a process-product analysis was employed (Nassaji & Swain, 2000; Storch & Wigglesworth, 2010). The analysis linked the LREs in collaborative dialogue with the performance of the participants in the immediate and delayed posttests. To establish this link, the comparison was made between the response of the participants to the corrective feedback provided for the three targeted structures and the accurate or inaccurate uses of these forms in similar instances identified in the writings of the immediate and delayed posttests. The responses of the participants that were taken into account primarily considered the types of engagement which were categorised in the three factors – focus, hypothesizing corrections and reflections. For the purpose of coding and analysis of the LREs, guided by Swain's (2005) Output Hypothesis, the

present study adapted the coding system employed in the Storch & Wigglesworth study (refer to 3.4.4.1, p. 115 for descriptions of the coding procedures).

5.1.1 Learners' Subsequent Response to the CF during the LREs

The first source of the data was calculated to show the amount of corrections provided to the participants' written work in the two treatment sessions. The purpose of this figure is to show the participants' response to the feedback and their resolutions for the three targetted structures. Responses and revisions may have been among the important factors that influence uptake and retention of the corrective feedback in the participants' subsequent written work. Correct resolution is when the pairs were able to come up with the corrected forms of the errors committed. Incorrect resolution is when the pairs came up with the forms that are inaccurate for the context of the written work. The feedback was considered unresolved when the pairs during the deliberation over the feedback mentioned that they did not know the correct form.

In order to ensure uptake and retention to take place, findings from the analyses reveal that participants have to attend to the feedback provided. Chandler (2003) asserts that learners must make corrections for the errors committed to ensure uptake of the CF in subsequent written tasks. Referring to Figure 4.2.4.1, Figure 4.2.4.2 and Figure 4.2.4.3 in Chapter 4 (pp. 134-141), even though there was no statistical significance in the difference of scores means between the FCF and UFCF groups, there is a pattern indicating that the scores means of the unfocused group were slightly higher than the focused group in both immediate and delayed posttests. Participants in the FCF group tend to leave out discussing similar feedback since it was easier for them to identify the feedback given to certain errors. For example, preposition errors like "at 2008",

once they realized that the errors are similar, they would skip from discussing feedback provided for the same errors. But, for the UFCF group, since there were many other corrections on various language forms, they were inclined to discuss all feedback provided, regardless of whether the errors were similar or not. This is most probably due to the fact that they were not able to easily distinguish one type of error to another during the pair talk, thus making them deliberate over all corrections. The interview with a participant from the UFCF group suggests this deduction.

Banyak sangat error. Saya tak ingat sangat semua error tu... banyak sangat... spelling, word choice, articles ... mmm ... banyak lagilah yang lain ... saya rasa saya betulkan semua error, tak skiplah sebab ada banyak sangat ... no ... I don't think boleh senang identify error ... better tengok semua ... buat corrections.

Too many errors. I can't really remember all the errors, there were too many...spelling, word choice, articles... mmm... and so many others... I think I corrected all the errors, I did not skip because there were too many... no... I don't think I can identify the errors easily... it is better to look at all... make corrections.

This pattern can be inferred from the frequency data in Table 5.1.1.2 below indicating a slightly larger number of CF not attended to by the FCF group for the three targeted forms than to the UFCF group. However, the difference of the unattended CF on articles was smaller between the FCF and UFCF suggesting that the participants in the UFCF group tend to leave out similar article errors. During both sessions of the pair talk, the LREs occurrences on articles were 72% of the total number of feedback provided for UFCF. This indicates that from the total amount of CFs provided for articles (233 CFs), 65 CFs were not deliberated, compared to 68 CFs left out by participants in the FCF group. Interview revealed that participants found articles to be short and easy to

remember, making it easily identifiable amongst other errors. Below is the respond given by a participant from the UFCF group, during the interview.

I think article is easy to correct because it is just one word...short and simple, just 'a' or 'an' or 'the'...I can know it is article error after one or two errors...not like SVA...too long, sometimes I don't know which one to correct...article...I can remember.

Both FCF and UFCF groups displayed similar patterns in the accuracy scores of articles from the pretest to immediate and delayed posttests. Referring to Figure 4.2.4.3 in Chapter 4 (p. 141), unlike the plotted graphs of the SVA and prepositions, for articles there was a slight noticeable decrease from the immediate and delayed posttest for UFCF group which is very similar to FCF group. It is possible that this pattern is due to the fact that learners in both groups tend to skip discussing similar CFs on articles. An example from the LREs during the collaborative dialogue illustrates how learners were able to identify similar CFs on article errors and decided to leave them out without deliberation.

```
FCF Pair 3 Collaborative Dialogue 1
```

```
1 FCF PT-5 ok...I will change 'increase' to increases'...next...article...
2 FCF PT-6 user...need article...this is the same as the one before...yes...here...users
4 FCF PT-5 yes...so...just add 'the'...next...also the same article...next...preposition...
```

13 FCF PT-5 article...the same...next...SVA

Before the CF on preposition, there was another CF on article, which they identified as the same as the previous ones and moved on to preposition error (line 3). They discussed the CF on prepositions and after a discussion on SVA error following the CF on prepositions, they came across another article error. Then, they continued discussing SVA without deliberation on the article error (line 13). By not consistently deliberating over the CFs, these learners did not

extensively test their language hypothesis, thus lessening the attention given to the particular form. Even though they managed to make corrections and take up the corrected form in the immediate written tasks, in the long run, this uptake was not retained in their interlanguage system, thus making them unable to consistently use the form accurately. Further in-depth examination on the LREs and the scores of the learners' written work in both posttests on articles uses showed that the learners who tend to skip discussing the CFs contributed more to the decreasing scores means in the delayed posttest. However, as presented in Chapter 4, statistical data cannot really reveal these individual differences. This is one of the reasons why some scholars like White, for example, believes that examining individual data can provide more accurate information compared to analysis of group performance, since certain language features or skills, like interlanguage grammar should be described at individual level (White, 2003, p.55).

To illustrate this matter, an example of participants from FCF and UFCF groups who demonstrated uptake in the immediate posttest but showed a slightly decreased score in the delayed posttest will be described here in comparison to a participant who showed both uptake and retention in the immediate and delayed posttests. The corrective feedback discussed in this example was on article uses in Writing Tasks 1 and 2.

Table 5.1.1.1: Test scores for comparison

	Number of CFs deliberated/ Total	Pretest (%)	Immediate	Delayed
	number of CF provided		Posttest (%)	Posttest (%)
UFCF PT-2	4/ 11	64	82	74
FCF PT-14	3/11	64	80	71
UFCF PT-26	11/11	64	88	88

Note: PT - Participant

UFCF PT-2, FCF PT-14 and UFCF PT-5 had the same pretest scores and the total number of CFs for article errors in writing tasks 1 and 2. However, the

LREs occurrences for UFCF PT-2 were only four of the total 11 CFs provided and FCF PT-14 only discussed 3 of the 11 CFs. From the table above it was clear that UFCF PT-2 and FCF PT-14 improved in the accuracy scores of articles in the immediate posttest at 82% for UFCF PT-2 and 80% for the FCF PT-14 which increased from 64% in the pretest. However, they did not manage to retain that level of accuracy in the delayed posttest which was administered after a sixweek interval with a decrease in the accuracy scores percentage to 74% for UFCF PT-2 and 71% for FCF PT-14. On the other hand, UFCF PT-26 who deliberated all of the CFs provided had demonstrated uptake in the immediate posttest as well as retention in the delayed posttest with the both percentages at 88%.

Table 5.1.1.2 shows the number of corrective feedback provided to the participants for the two written tasks during the treatment sessions tabulated according to the resolutions and the three focused forms. The first row, tabulated according to the linguistic forms, shows the total amount of CF provided for the two treatment groups in both Writing Task 1 and 2. The means presented in the table shows the average number of CF each participant received in both writing tasks according to the three linguistic forms. Referring to the means below, it can be deduced that for each participant, regardless of the CF types, received similar amount of CF for each targeted linguistic form. The range of CF that the participants received for each linguistic form was also equivalent for both groups. The CF received for SVA for instance, ranges from 2 to 10 for the participants in the FCF group and from 1 to 12 for the UFCF group. With the minimum number of CF received at 2 for FCF and 1 for UFCF, as well as the maximum number at 10 for FCF and 12 for UFCF, the two treatment groups were similar in terms of the amount of CF received. By dividing the number of

CF attended by the total amount of CF provided, the amount of CF attended is converted into the percentage.

Table 5.1.1.2 : Amount of Corrective Feedback and LREs Occurrences

	SVA		Prepositions		Articles	
	FCF	UFCF	FCF	UFCF	FCF	UFCF
Amount of CF provided	282	273	334	342	226	233
Means	4.7	4.6	5.6	5.7	3.8	3.9
Range	2-10	1-12	4-19	1-14	2-11	1-13
Number of CF attended	234(83%)	251(92%)	257(77%)	298(87%)	158(70%)	168(72%)

Note: The number of CF attended to is accounted from the LREs occurrence in two pair talk sessions

Based on the frequency data presented in Table 5.1.1.2, it can be deduced that the participants' response towards the feedback provided may be a significant influencing factor that contributes to the uptake and retention of the corrective feedback.

This finding corroborates Chandler's (2003) claims on the importance of learners making corrections to the CF provided. The Chandler study suggested that improvement in subsequent written work can be evident only when the learners attended to the feedback and revise their writing accordingly, because if no revision was made based on the CF provided it can be considered as "equivalent to giving no error feedback" (Chandler, 2003, p.280). Focusing the investigation on the learning context, the Fazio (2001) study also claimed that learners must demonstrate attentiveness towards the CF provided for it to take effect in their written work. In the case of the present study, it was also discovered that attending to CF and making corrections were essential. The means to ensure that the participants attended to the CF and made necessary revision was through the pair talk that they were required to carry out subsequent

to getting back their written work. A number of participants admitted during the interview that the pair talk made them focus on the CF that they received.

Sebab ada pair talk saya tengok betul-betul sebab nak kena buat correction. Saya pay attention lebihlah pada feedback yang dapat tu. Kalau kena buat sendiri... sorang-sorang, saya taklah pay attention sangat... selalunya saya browse saja sekali lepas tu simpan saja kerja tu.

The pair talk made me looked at the CF carefully since we had to discuss the corrections. I paid more attention to the CF that I received. If I were to work on my own... individually, I wouldn't pay that much attention... I would usually just browse through once and keep the writing away.

This attitude was shared by a number of participants attributing the response towards the CF was due to fact that they needed to make corrections collaboratively during the pair talk. They were obligated to attend to the CF in order to contribute to the discussion during the pair talk. Nevertheless, though a number of participants shared this view, there were also those who paid less attention to the CF and left out a number of corrections during the pair talk. However, frequency data derived from the LREs analysis indicated that all learners who left out a number of CF, attended to the CF at least two from the total amount of CF provided for each targeted linguistic form. So, the question is of how much attention could be sufficient for the learners to internalize the form and retain the accuracy in a long run.

Previous studies that were carried out to determine the effects of CF on learners' linguistic improvement have employed varied procedures in administering treatments to the participants. The Sheen et al. (2009) study, like the present study, carried out two-session treatment with intermediate ESL adult learners and produced findings that indicated facilitative influence of the focused CF both for uptake and retention over a period of time. The Bitchener & Knoch

(2010) study involving advanced ESL learners pointed out that one-session treatment was adequate for the learners who received three CF types (written metalinguistic explanation, indirect CF and written metalinguistic with oral form-focused instructions) to improve accuracy in the immediate posttest. However, after a 10-week interval, only the learners who received written direct meta-linguistic explanation and an oral form-focused CF were able to retain accuracy. This implies that the effects of the combination of CF types on the learners uptake and retention is of importance. Learners in the present study deliberated on the CFs in order to make corrections. The extent of engagement played a crucial role in enhancing the CF influence on the learners' internalization of the focused forms which enabled them to retain the accuracy after a period of time. Findings related to this extensive engagement will be further elaborated in the subsequent section of this chapter.

As far as learners' response is concerned, it is proven that CF provided to the learners will only be useful if the learners take note and make appropriate corrections. Thus, Lee (2008b) asserted that it is important to know how the learners perceive and respond to the feedback for the CF to be effective in assisting learners language development. In order to achieve this, inquiry at individual level should be carried out taking into consideration the learners' differences and the context that posits the issues of CF effectiveness (Hyland & Hyland, 2006b). The following sections further discuss factors that may have influenced uptake and retention of the corrective feedback in the subsequent written work guided by the three functions of Swain's (2005) Output Hypothesis.

5.1.2 Learners' Focus on Ungrammatical Uses

According to Swain (2005), noticing plays an important role in directing learners' attention to the gap that exists in their interlanguage system. Through noticing, learners would be able to discern that the language that they produce in writing is different from the target language. This awareness assists learners to reflect on their language production and make necessary revisions. Guided by this theory, in order to direct the learners' focus on the gaps that exist in their written output, the present study employed focused or unfocused indirect corrective feedback. Errors were made salient for the learners to notice while making room for them to test their hypothesis in making corrections, which enabled them to be engaged in a deeper processing over the targeted linguistic forms during the collaborative dialogue.

Previous studies (Qi & Lapkin, 2001; Sach & Polio, 2007) categorised noticing into substantive and perfunctory. Substantive noticing is when the learners were able to understand why the errors were committed and able to explain on the corrections. On the other hand, perfunctory noticing is when the learners did not understand why an error was committed and were not able to explain the corrections. The present study adapted these classifications and classified the learners' focus on the ungrammatical uses in their written work highlighted by the CF that they received into substantive and perfunctory. When the tests scores and the LREs analysis were compared, close examination reveals that participants who demonstrated substantiveness outperformed those who showed only perfunctory noticing. Below is a transcribed LRE from a FCF pair demonstrating substantive noticing on the CF provided for SVA.

FCF Pair 12 Collaborative Dialogue 1

```
1
    FCF PT-23
                 SVA error here...'the device are'... 'device' is
                 the subject...
2
    FCF PT-24
                 'device are'...singular... 'device'...
3
    FCF PT-23
                 Yes...singular subject cannot use 'are'...singular
                 subject should use 'is'...so, 'device is'
4
5
                 Ok...maybe 'devices are'?
    FCF PT-24
                 no...I want to talk about one device here...fax
6
    FCF PT-23
                 machine...so, "device is"...singular...verb 'is'...
7
```

The pairs were able to explain why the sentence was wrong and identified the correct form to use for the SVA error that was committed. Participant 23 was fully aware that she was directed toward the phrase 'the device are' which was not in agreement in terms of numbers to the verb used (line 1). When participant 24 suggested to use 'are' with 'devices', she asserted that she was talking about one device and it should agree with the verb 'is', since it is singular (lines 5 to 7). This LRE indicated that when the pairs' attentions were directed towards the non-target like output, they managed to make accurate correction since they demonstrated substantive noticing by clearly stating the reason for the error committed.

On the other hand, pairs that only demonstrated perfunctory noticing would just simply read the CF and agreed on a correction. An example of perfunctory noticing is given below.

FCF Pair 6 Collaborative Dialogue 1

```
1 FCF PT-11 Next...SVA... ''the numbers increases'
2 FCF PT-12 Change to 'the number increases'...no 's'
3 FCF PT-11 Ok... 'the number'...no 's'...next...
```

Participant 11 simply agreed on the suggestion and changed 'the numbers' to 'the number', leaving out the 's'. They were able to make accurate correction, but they did not demonstrate understanding over the CF and the errors

committed. With this simple assumption, they tend to make mistakes when correcting similar SVA errors since they were not completely aware of the subject or the verb of the sentence. Interview with this pair of participants revealed that they just assumed that when the error is SVA, they just needed to omit or add an 's' to one of the words underlined by the researcher. When asked if they knew which one was the subject or the verb in the underlined phrases, they mostly pointed out the verb correctly, but it was not consistent with the subject. They were not quite sure which one the subject was, especially if the sentence was quite long, for example,

'Another web browser used by the internet user are Safari.'

Above the underlined phrase, the code 'SVA' was written indicating that an error was committed. In this sentence, Participant 11 pointed to the 'the internet user' as the subject and during the pair talk, they added the 's' to the word 'user' instead of using 'is' to make it agreeable with the subject 'Another web browser'. They simply assumed that 'the internet user' was the subject of the sentence and it should be plural since 'are' used subsequent to the assumed subject. What this condition implies is that even though they sometimes managed to make accurate corrections, by not clearly being aware of the reason for their errors, they were unable to take up and retain the CF in the long run. This was shown in their subsequent written work when they committed similar errors resulting in a more or less the same accuracy scores from the first writing task right through to the delayed posttest.

This finding seems to corroborate the results from other studies that suggest the greater role substantive noticing plays in enhancing uptake of corrective feedback that is observed through the analysis of LREs (Qi & Lapkin,

2001; Sach & Polio, 2007). However, for preposition errors, it was quite difficult to determine whether the participants had actually exhibited substantive noticing even when they were able to make the accurate corrections. Mostly, the participants were not able to explain why the error was committed and how it can be corrected. They deliberated and agreed on a form of correction, without providing much explanation on the errors. An example below shows a LRE on a preposition error categorised as perfunctory.

UFCF Pair 8 Collaborative Dialogue 1

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1 UFCF PT-16 Preposition... 'mobile phones have the access for internet...'
3 UFCF PT-15 'access'...you must use 'to' not 'for'
4 UFCF PT-16 Yes... 'to' ...let me change this... 'access to'...
```

The pair did not extensively discuss the correction but simply agreed on using 'to' instead of 'for' after pointed out by UFCF PT-15 (line 3). Both participants did not explain why 'for' should be substituted by 'to' indicating that they were not aware of why the error had occurred even though they were able to come up with the correct form to use. However, the interview revealed that the learners actually understood why the preposition they initially used was wrong, but they were not able to explain why.

Saya tak tahu macammana nak explain kenapa 'for' ni salah. It is like when you access ... mmm... mestilah 'access to' ... you get access to internet ... access to something ... access kepada internet ... kalau kata 'access for' ... for is 'untuk' ... for what ... mmm ... tak tahulah nak explain ... I just know kalau 'access to' tu betul.

I don't know how to explain why 'for' was wrong. It is like when you access...mmm...it must be 'access to'...you get access to internet...access to something...access to internet...if you say 'access for'...for is 'untuk' (literally translated as 'for')...for what...mmm...I don't know how to explain...I just know that 'access to' was correct.

Learners' focus on ungrammaticality at perfunctory level may be attributed to what Chomsky (1980) hypothesized in Universal Grammar as the 'innate core of abstract knowledge about language form' which first language speakers can refer to. In contrast, second language learners may not have this innate collocational knowledge that the native speakers posses, thus, making their focus on ungrammatical uses to be considered at perfunctory level especially when it concerns linguistic forms that are idiosyncratic like prepositions as described in the example and interview excerpts above.

Sach & Polio (2007) reminded that since the LREs analysis can be highly inferential, misinterpretations tend to occur. This is mostly due to the fact that "there is no certain way of knowing whether a given verbalization is a veridical (i.e. complete and accurate) account of a learner's awareness of linguistic input" (Sach & Polio, 2007, p.73). Thus in analyzing the data in the present study cautions have been taken in interpreting the LREs of which the participants were often asked for clarification during the interview. After having taken into considerations this inferential shortcomings, evidence did suggest that when learners noticed the disparity in their language and the target language they would reflect deeper in making the corrections which influenced the uptake and retention of the corrective feedback. The focus on ungrammatical uses was one of the elements that helps triggers the hypothesis testing and reflections which influenced the uptake and retention of the corrective feedback as measured in the immediate and delayed posttests over a period of time.

5.1.3 Hypothesising on What is Considered as Correct

Another Output Hypothesis function is that it provides opportunities for hypothesis-testing. In the context of the present study, when learners

hypothesized on corrections that they tried to come up with, this hypothesis testing function was employed. Swain (2005) mentions that hypothesis testing is like a 'trial run' to produce comprehensible language. Learners in the present study through the collaborative dialogue had a chance to trial run and hypothesise the corrections based on the CF that they received. Similar to the Storch & Wigglesworth (2010) study, learners in the present study who were engaged in the LREs more extensively, showed a greater uptake and retention of the CF for the three target structures.

Extensive hypothesis of corrections is when the participants deliberated extensively over an error and tried out several options before finally agreeing on a correction. Participants who made correction by just acknowledging the feedback and simply came up with a correction without much deliberation seemed to not show much uptake of the forms. They tend to repeat the same errors in the subsequent written work. Observation was made from the collaborative dialogue that the participants in the FCF group tend to not have extensive discussion over similar errors. They just simply repeated the corrected forms from the first correction they made. This is reducing the function of hypothesis testing in their LREs.

As for UFCF, since they have other errors that they needed to attend to, it is not often for the participants in this group to just simply repeat correction for similar errors. It is possible that due to the fact that most of the participants in the UFCF group religiously employed all three functions of Output Hypothesis, learning took place and linguistic knowledge derived from the corrective feedback and collaborative dialogue is internalized into their interlanguage system. This means greater uptake and retention for them compared to participants in the focused CF group.

The example below illustrates extensive hypothesizing of corrections during the collaborative dialogue deliberating over a CF for a SVA error.

UFCF Pair 10 Collaborative Dialogue 1

1	UFCF PT-19	HereSVAsubject-verb agreement 'the
2		communication device are'.
3	UFCF PT-20	What is wrong here?svameans you have
4		to change the verb?
5	UFCF PT-19	Maybechangemmmwhich one
6		'are'?
7	UFCF PT-20	'the communication device is'?nobut
8		here you talk about 'device'which
9		devicemany or one?
10	UFCF PT-19	'communication device'which oneah
11		yesherepersonal computer, fax machine
12		and mobile phonesomanypluralso I
13		have to change 'devices', add 's''the
14		communication devices is'but 'devices'
15		plural so, 'devices are'.
16	UFCF PT-20	Yes'the communication devices
17		are'that's rightchange that.

The participants in the above example had extensively hypothesized corrections to come up with a more accurate form. They tested several possibilities (lines 7 to 15) before agreeing on the correction in lines 16 and 17. In the process, they have also displayed substantive noticing (line 7-9) which is important to enhance uptake and retention as discussed in the previous section. In relation to hypothesizing corrections, the fact that these learners were able to understand the CF and why an error had been committed provided them with more opportunity to extensively engage in the deliberation of the CF.

On the other hand, when participants did not extensively test their language hypothesis, the uptake and retention was considerably lower than those who had had extensive engagements in deliberating the CF. Below is an example of a limited engagement of which the participants did not extensively hypothesise corrections for the CF provided.

FCF Pair 8 Collaborative Dialogue 1

1 FCF PT-16 Next SVA... 'personal computer are'

2 FCF PT-15 'Personal computer is'

3 FCF PT-16 Ok...change to 'is'...next...A...article...

Participant 16 simply acknowledged and wrote down the agreed form without deliberation (line 3). Participant 15 suggested to change 'are' to 'is' and by simply acknowledging the correction, Participant 16 changed the verb without deliberation which limited hypothesis testing and in this case, substantive noticing was also not evident. Even though they managed to come up with the correct form, this usage was not consistently retained in subsequent written work, as shown in the example below in sentences extracted from Participant 16's written work.

Writing Task 1:

Original sentence

Personal computer are the highest from 2004 to 2008.

Revised sentence

<u>Personal computer is</u> the highest from 2004 to 2008.

Sample sentence from Writing Task 1:

The graph shows percentage of usage share of six web browsers for October 2010.

Another sample sentence from Writing Task 1:

<u>The six web browsers is</u> Internet Explorer, Mozilla Firefox, Google Chrome, Safari, Opera and Mobile browsers.

Sample sentence from Delayed Posttest:

The five ASEAN countries in the graph are Malaysia, Singapore, Thailand, Indonesia and Philippines.

Another sample sentence from Delayed Posttest:

The broadband subscribers is the highest in Singapore.

Interview with participant 16 revealed that he could not remember much from the pair talk when discussing the CF. The audio recorded pair talk for this particular part was played to him and his written work was shown when he was asked to recall during the interview.

This part...tak berapa ingatlah...bila menulis lepas pair talk...tulis je tak fikir pasal discussion...tak ingat lagi dah...we discussed cepat-cepat.

This part...I don't remember very well...when I write later after the pair talk...I just write without thinking about the discussion...I cannot remember anyway...we discussed very quickly.

In contrast to UFCF participant 16, another participant admitted that the extensive discussion helped him remember the CF when writing the subsequent tasks.

Yes...I remember discussing this (referring to audio-recording)...we tried to come up with the correct form...first change 'is' then I realized that..mmm...you know...plural...this one (pointing to 'communication device' in his written work)...many devices...three...so..plural...then have to change to are...when I wrote the next task of course I remember...I was conscious and I did not want to make the same mistake

Most participants who were interviewed stated that the extensive hypothesizing on corrections helped them remember the CF better which led to greater uptake and retention.

Yes...because we tried many times...I can remember

Another participant also revealed that even though she was not very certain of the agreed correction, she can remember the correction after extensive deliberations.

We tried many corrections... we are not very sure though... but I can remember in my next writing, when I was not sure...I tried to remember the discussion...

Viewing this collaborative activity from a cognitive-interactionist perspective, Storch & Wigglesworth (2010) suggested that this process provides the learners with more opportunity to test their language hypothesis while getting "immediate feedback from their peers". They also stated that learners have more resources in the learning process when deliberating over the CF collaboratively since they can assist each other and rely on each other's metalinguistic knowledge. Similar to the findings in the current study, the Storch & Wigglesworth study also suggested that learners who were extensively engaged in the deliberation over the CF demonstrated greater uptake and retention of the accurate use of the targeted forms in subsequent written work. Although this was the case, the learners' language belief and conventions may become the hindrance in the retention of the CF.

However, one of the pairs described in that study may provide the explanation of why in the present study, the learners' language convention was not a great hindrance to the uptake and retention. The pair in the Storch & Wigglesworth study was described to be undergraduate students unlike the other pairs who were graduate students who would be likely to be more confident in their language proficiency. Participants in the present study were also undergraduate students and in most cases, they had been very receptive toward the CF and the revisions made during the pair talk, thus demonstrating greater

uptake and retention. In other words, being undergraduate students and younger in age (average 20 years old) made them more receptive towards the learning process compared to more advanced or older learners. One of the reasons was their perception towards their own language proficiency level. Being undergraduate students, they felt that their language proficiency level was not good enough to give them confident in terms of their language accuracy. They relied very much on the teachers' comments and feedback, thus making them to be more receptive to the CF provided for their written work.

"I think I need more teacher's feedback. I am not very good in English and my partner pun tak berapa bagus juga. So, teacher's comment banyak membantu... I expect banyak lagilah sebab bila nak buat correction saya memang perlu teachher's feedback.. nak discuss pun perlu juga teacher's feedback."

"I think I need more teacher's feedback. I am not very good in English and my partner also not very good. So, teacher's comment helped a lot... I expect more because when I want to make correction I need teacher's feedback... to discuss."

Participant 25 expected more teacher's feedback because she felt that the CF can help them make accurate corrections and to deliberate during the pair talk. This reliance on the teacher's feedback was mainly due to her belief that both hers and her partner's were low in the language proficiency level.

In relation to the hypothesis testing function, the process of extensive "trial run" enhanced the learners' reflective functions over their existing metalinguistic knowledge. Swain (2005) stated that learners need to test their language hypothesis in order to "modify the output" resulting from the CF provided. In order to provide the conducive setting for the hypothesis testing to occur, learners should be comfortable with the pair that they are working with during the collaborative dialogue. When learners are more comfortable they

would feel that they have more freedom to deliberate extensively with their partner. As Storch & Wigglesworth implied in their study that extensive engagement in LREs may lead to greater uptake and retention, the present study also showed that extensive hypothesis testing was more likely to enhance uptake and retention than when learners had limited deliberation over the CF provided. In a conducive setting by having the participants work with their own chosen peer, more LREs were produced of which extensive hypothesis testing was evident. This aspect will be further elaborated in the subsequent sections of this chapter.

Extensive hypothesis testing provided the participants in the present study a means to reflect on the gap in their existing linguistic knowledge. Noticing the linguistic gaps and extensively testing their language hypothesis were the process essential toward better reflections on their language output which influenced their learning development. The next section discusses the reflections of the learners on their linguistic knowledge subsequent to their response to the CF that they received. This reflection stage had been determined as one of the primary factors influencing uptake and retention of the CF provided for the targeted linguistic forms in the written work.

5.1.4 Learners' Post-Response Reflections

Metalinguistic function tackles the existing knowledge of grammar forms that are in the participants' interlanguage system leading to reflections by learners on their own language production compared to the target language (Swain, 2005). Guided by this function, the present study had identified learners' reflections on their linguistic knowledge through the analyses of the LREs and the interviews, to be one of the influencing factors that enhance uptake and retention. Learners

who had extensively engaged in the deliberation and reflected on their linguistic knowledge demonstrated positive progress in their acquisition of the target like forms. These learners showed improved accuracy on a condition that they were willing to unlearn the existing metalinguistic knowledge in their interlanguage system. This willingness was one of the affective factors that influenced their learning process. The Storch & Wigglesworth (2010) study suggested that learners' uptake and retention were hindered by their language conventions and beliefs. In contrast to the findings in the Storch & Wigglesworth study implying learners' beliefs that are in contradiction to the feedback provided hinder the uptake of certain linguistic forms, the present study showed that despite their beliefs, the learners were willing to take up the feedback and change the use of certain linguistic forms.

One example is a preposition that was frequently used erroneously is "in conclusion". Most participants in the study used "as a conclusion", but after much deliberation and reflections, even though the participants were reluctant to accept the correct preposition, most were willing to change their belief and familiar way of using the phrase. The unlearning of the old and familiar form took place and the uptake of the new form was subsequently used in the second writing task and retained in the immediate and delayed posttests. The LREs analysis implies that learners' belief on existing language convention may not become a hindrance to the uptake and retention of corrective feedback on the use of prepositions. Below is a LRE excerpt from the first pair talk session illustrating the occurrence of unlearning after deliberation over a CF on preposition.

UFCF Pair 1 Collaborative Dialogue 1

1	UFCF PT-1	Here's another preposition error 'as a
2 3	LIECE DT 2	conclusion' why?
-	UFCF PT-2	'as a conclusion'? preposition error so
4		how do we change this?
5		Why is this wrong? I always use this I didn't
6		realize this is wrong looks ok to me
7		maybe 'as conclusion', no 'a', like sebagai
8		kesimpulan? (literally translated as 'as
9		conclusion')
10	UFCF PT-1	Well maybe but 'as conclusion' does
11		not sound rightI think you need to change
12		the preposition here 'as' cannot use 'as'
13	UFCF PT-2	But 'as a conclusion' is ok I think sebagai
14		keseimpulannya always use this never
15		wrong before
16	UFCF PT-1	I think it's 'in conclusion' like mine here
17		I got this correctit was not underlined
18	UFCF PT-2	But why? 'in conclusion' doesn't sound
19		right dalam kesimpulan
20	UFCF PT-1	I think I saw this somewhere else too 'in
21		conclusion' that is how it is
22		writtenmaybe we cannot translate like that
23		to BM (abbreviation for Malay language)
24		not the same
25	UFCF PT-2	I think 'as a conclusion' sounds betterI
26		don't like this but ok 'in conclusion' I
27		will write that.
-		

Participant 2 was quite reluctant to accept the newly agreed form 'in conclusion' due to the fact that she had been using 'as a conclusion' previously and was never pointed out that it was an error (lines 12-14). Eventually, after deliberation she accepted the form and changed her sentence accordingly. This unlearning process enhanced the reflective function leading to greater uptake and retention of the CF. Below are sample of sentences taken from Participant 2 writings. It was evident that Participant 2 demonstrated uptake as seen in Task 2 sample sentence and the accurate use was retained after six weeks as shown in the delayed posttest sample sentence.

Task 1 sample sentence:

As a conclusion, in 2008 most households in Japan preferred to own mobile phones for communication.

Revised sentence:

<u>In conclusion</u>, in 2008 most households in Japan preferred to own mobile phones for communication.

Task 2 sample sentence:

<u>In conclusion</u>, the internet surfers are more likely to use Internet Explorer when surfing the internet compared to other web browsers.

Delayed posttest sample sentence:

<u>In conclusion</u>, Singapore had the highest number of broadband subscribers in 2005.

Clearly, the CF provided drew the learner's attention to the non-target like use and this negative evidence triggered the reflections of the learners on their existing linguistic knowledge. Internalisation of the new accepted form occurred after the learners were willing to unlearn the previous used forms. Unlike most participants in the Storch & Wigglesworth study who were graduate students of advanced proficiency level, the participants in the present study were undergraduates mainly at intermediate level. Even though the participants in the Storch & Wigglesworth study had been in Australia for less than a year, the exposure that they were getting in an English speaking environment may be influencing the confidence of their language ability. On the other hand, the learners in the present study had never been in an English speaking environment and the fact that they generally acknowledged their limited knowledge and skills in using the L2 made them to be more receptive of the feedback, resulting in the

unlearning of the previous language use to the uptake and retention of the newly accepted language features. One learner admitted that she always felt that her English was not good enough and she needed more practice to improve her language proficiency.

My English is weak. Selalu rasa macam kalau tulis ayat salah. I need the teacher to tell me how...mmm...macam mana nak bagi betul. Masa pair talk, kawan saya banyak tolong and maybe kalau ada lebih banyak berbincang macam ni maybe boleh improve lagi lah sebab feedback dari teacher dapat, dari kawan pun dapat. Macam tu I can learn more.

My English is weak. I always feel that when I write my sentences are wrong. I need the teacher to tell me how...mmm...how I can make them more accurate. During the pair talk, my friend helped me a lot and maybe more discussion like this can help me improve more because I can get feedback from the teacher as well as from my friend. I can learn more that way.

This receptiveness towards the CF due to the level of proficiency has also been discussed in the Patthey-Chavez & Ferris (1997) study comparing learners of different proficiency levels in their use of the CF in revising their written work. Lower proficiency learners were more inclined to use the CF thoroughly than the more able learners who employed the CF as initiatives to changes in their writings (as cited in Hyland & Hyland, 2006c).

Relevant to this finding, the White (1991) study with francophone ESL learners on adverb placement theorized that negative evidence was necessary in order for the learners to unlearn the French SVAO form which is not grammatical in English language. The present study employed FCF or UFCF as the negative evidence pointing out to the learners that some uses of focused linguistic forms were not grammatical in their written work. Because of these CFs, the learners came to notice the gaps and deliberated over the corrections by testing their hypothesis and reflected on their metalinguistic knowledge in order to come up with appropriate corrections that may or may not be the consistent

with their own existing language convention. In other words, CF initiates the process of unlearning which is necessary for a long term internalization of the new accepted linguistic features resulting from the deliberation during the pair talk.

This notion of unlearning was discussed in the Ionin & Montrul (2010) study investigating the role of L1 transfer on the second language acquisition focusing on article uses with definite plurals in English involving the native speakers of Spanish and Korean. The Spanish ESL learners had to unlearn more than the Korean ESL learners because of L1 influence from the Spanish language resulting in overgeneralization of the use of the English definite plurals. Korean ESL learners, on the other hand, had much lesser L1 influence since articles are not applicable in the Korean language system. The unlearning was an important part in order for the learners to progress in the language learning. Similar to the present study, the unlearning that took place provided the learners to reflect on their own linguistic knowledge and be more receptive towards the new learned language features and made progress in the learning development.

Nonetheless, what has been suggested by the Storch & Wigglesworth (2010) study on the effect of learners' language belief was not refuted altogether. Examinations of the LREs suggest that there were three learners who were not willing to change their language conventions. One of them refused to take up the CF and she was very assertive of her existing interlanguage use during the pair talk. The accuracy scores of these students predictably were not showing consistent improvement of which the scores of the delayed posttest was slightly lower than the immediate posttest scores compared to the more receptive learners whose scores showed evidence of retention with a consistent increase from the pretest through the delayed posttest.

FCF Pair 2 Collaborative Dialogue 1

FCF PT-3	nextas a conclusionwhy did the teacher			
	underline thisthis is not wrongI always use			
	thisnot wrongdo you have this too?			
FCF PT-4	Waitno, I used to sum upand it was ok			
FCF PT-3	As a conclusion is correctnobody ever said it			
	was wrong beforesebagai kesimpulannya			
	(literally translated as 'as a conclusion)yes?			
FCF PT-4	Yes I think so, but maybe you need to			
	change since it was underlined			
FCF PT-3	Change to whatno, I think this is ok			
FCF PT-4	Maybe as conclusion? No a?			
FCF PT-3	As conclusionnothat does not sound			
	rightas a conclusion is okmaybe I change			
	to to sum up like yours?			
FCF PT-4	Ok			
FCF PT-3	Let me write thisto sum upbut why is this			
	wrong?as a conclusion is ok			
	FCF PT-4 FCF PT-4 FCF PT-3 FCF PT-4 FCF PT-4 FCF PT-4			

This participant used 'as a conclusion' in Writing Task 1, then, instead of correcting the preposition in the phrase 'as a conclusion', she avoided using the phrase in the second writing task as well as in the immediate posttest, and used to sum up, mainly because her partner had used it correctly. However, after six weeks' interval, she could not retain the form and went back to using 'as a conclusion'. During the interview, she admitted of not feeling satisfied over the CF because she believed that 'as a conclusion' was not wrong and nobody has ever told her that it was wrong. She stated that since her pair talk partner's concluding phrase was not underlined, so she simply used "to sum up". The reoccurrence of 'as a conclusion' in the delayed posttest was unintentional.

Aah...yes...I used 'as a conclusion' again... I didn't realize that...I just wrote without much thinking...I don't remember the discussion on this error when I wrote the last writing task. It was easy for me to just use this...it sounds ok to me and I have always used this...why is this wrong?

When told that it was supposed to be "in conclusion", she shook her head and asserted that it "doesn't sound nice".

In conclusion?...why?...dalam kesimpulan...that doesn't sound nice...no...I think as a conclusion is better...well maybe next time I will try to remember in conclusion, but...I still prefer as a conclusion...it was not wrong before.

The other two learners who resisted the change simple continued to use 'as a conclusion' in their subsequent writing. This unwillingness to unlearn influenced the CF effectiveness leading these learners to continue using the form that they believed to be correct or they might avoid using the form that was pointed out to them to be incorrect. In the present study, even though there were only three participants who had displayed this resistance, it contributes to the factors that influence CF effectiveness. This individual learning style and preference is inevitable in any learning contexts and these differences were what Truscott (1996) based his argument on when he pronounced that grammar correction should be abandoned because it is ineffective and may possibly be harmful to the learning development. Apart from the unlearning factor, first language influence was also identified to have contributed to the effectiveness of the reflective function in the learning process.

5.1.4.1 First Language (L1) Influence on the Learners' Post-Response Reflections

Another prevailing issue that can be deduced based on the LRE analysis in terms of the reflective process was the use of L1 in their metatalk and how they used L1 to reflect and scaffold each other as well as regulating their own metalinguistic knowledge. Wigglesworth & Storch (2012) discussed previous literature on the roles of collaboration in dealing with writing and processing corrective feedback. One area that has not been extensively researched on is the

use of L1 as an approach employed in collaborative tasks. Previous studies reported findings on the use of L1 in completing language learning tasks to determine the functions that L1 serves and its influence on the learners' learning process (De La Colina & Garcia Mayo, 2007; Ionin & Montrul, 2009; 2010; Lightbown & Spada, 2000; Park, 2013; Storch & Aldosari, 2010, among others). Relevant to the present study, the De La Colina & Garcia Mayo (2007) and the Storch & Aldosari (2010) studies employed collaborative dialogues to investigate the functions and influence of L1 on low proficiency EFL learners in tasks completion. Findings from these studies suggest that L1 was notably facilitative as a tool for enabling the low proficiency learners to be engaged in metatalk while collaboratively completing tasks in the learning process.

With reference to the present study, even though it was not specifically the purpose of the analysis to investigate the use of L1 in the collaborative dialogue, it was considerably a significant factor that influences uptake and retention of the corrective feedback deliberated during the pair talk. The LREs analysis suggests that when the L2 feature exists in the first language system, participants were inclined to refer to the first language. In deliberating the CF during the pair talk, some of the participants were identified to employ two categories of L1 functions listed by Anton & DiCamilla (1998) (as cited in Storch & Aldosari, 2010, p. 356). L1 served as a tool used by the participants to assist each other in order to come up with corrections for the errors committed as manifested in the negotiation of "metalinguistic knowledge". In some conditions, L1 functioned as a means for "externalizing and vocalizing their thoughts" when the participants felt that it could be more comprehensible to explain their views using the L1. The example given below illustrates this condition.

UFCF Pair 10 Collaborative Dialogue 2

1	UFCF PT-20	Preposition error'it increases during
2		2007''during' is wrong.
3	UFCF PT-19	You cannot use 'during' 'during' is like
4		the whole time
5	UFCF PT-20	Yesall year2007
6	UFCF PT-19	No, what I mean is 'during'
7		meanssepanjang masayessepanjang
8		2007 atau semasa 2007, tak sesuaiin
9		English, untuk tahun kita guna 'in''in
10		2007' 'in 2007' macam bermaksud
11		sepanjang tahun 2007 atau pada tahun
12		2007, tapi preposition yang kena guna 'in'
13		bukan 'during'.
14	UFCF PT-20	Oooso I need to change all'in 2007', 'in
15		2004'
1	UFCF PT-20	Preposition error'it increases during
	UFCF PT-20	Preposition error'it increases during 2007''during' is wrong.
2		2007''during' is wrong.
2 3	UFCF PT-20 UFCF PT-19	2007''during' is wrong. You cannot use 'during' 'during' is like
2	UFCF PT-19	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time
2 3 4 5	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007
2 3 4 5 6	UFCF PT-19	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the
2 3 4 5 6 7	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the
2 3 4 5 6 7 8	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we
2 3 4 5 6 7 8 9	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we use 'in''in 2007' 'in 2007' it can mean
2 3 4 5 6 7 8 9 10	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we use 'in''in 2007' 'in 2007' it can mean the whole year 2007 or in 2007, but the
2 3 4 5 6 7 8 9 10 11	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we use 'in''in 2007' 'in 2007' it can mean the whole year 2007 or in 2007, but the preposition that we have to use is 'in' not
2 3 4 5 6 7 8 9 10 11 12	UFCF PT-19 UFCF PT-20 UFCF PT-19	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we use 'in''in 2007' 'in 2007' it can mean the whole year 2007 or in 2007, but the preposition that we have to use is 'in' not 'during'.
2 3 4 5 6 7 8 9 10 11	UFCF PT-19 UFCF PT-20	2007''during' is wrong. You cannot use 'during' 'during' is like the whole time Yesall year2007 No, what I mean is 'during' meansall the time,yesthe whole year 2007 or all the while in 2007, not suitablein English, we use 'in''in 2007' 'in 2007' it can mean the whole year 2007 or in 2007, but the preposition that we have to use is 'in' not

In the present study, one focused linguistic feature that learners used L1 as reference was preposition. However, the preposition features in English are not always equivalent to the features of prepositions in the first language and dependence on these different features may lead to inaccurate corrections. Based on the analysis, it was identified that there are certain criteria that learners employ can make references to L1 facilitative and it can be deduced into three main provisions. First, in the case when the rule of the L1 and English are not similar, learners must acknowledge the difference. Example below illustrates how learners were able to acknowledge the difference and eventually made appropriate corrections.

FCF Pair 3 Collaborative Dialogue 1

```
1
    FCF PT-5
                 Why is this wrong? 'with' ... preposition... why?
2
    FCF PT-6
                 Maybe you do not need preposition... 'the same...
3
                 comma 97%'
4
    FCF PT-5
                 Maybe, but...kekal sama dengan 97% (literally
5
                 translated as the same with)... this is correct,
                 dengan 97% is 'with 97%'... why is this wrong
6
7
                 I think for this one they are not the same, BM and
    FCF PT-6
8
                 English, use something else...
9
    FCF PT-5
                 What about yours...
                 Mine... the same...here when I used 'with' they
10
   FCF PT-6
11
                 are wrong...
                 So, what is it? 'to' 97%?
12 FCF PT-5
                 No, 'to' if we want to show increase...
13 FCF PT-6
14 FCF PT-5
                 Yes... you're right...
                 'on'? 'on 97%'...no...no that sounds weird, like
15 FCF PT-6
16
                 'atas 97%'
                 What about 'at 97%'?
17 FCF PT-5
18 FCF PT-6
                 Try... 'the website usage remained the same at
                 97%'... yes, that sounds ok...
19
                 'at 97%' ... yes I think so too
20 FCF PT-5
21
   FCF PT-6
                 Let me change this...
```

Both participants showed consistent uptake and retention of this form in the second writing task as well as in the immediate and delayed posttests, as shown in the example below taken from FCF Participant 5 of Pair 3.

Writing Task 1 Original sentence:

In 2007, the website usage remained the same with 97%.

Revised sentence

In 2007, the website usage remained the same at 97%.

Writing Task 2:

In 2008, the number of users showed an increase at 78%.

Immediate Posttest:

The highest feature used on mobile phones is "check inbox" <u>at</u> 68%.

Delayed posttest:

In 2005, the lowest broadband subscribers is Indonesia at 38%.

The uptake of the use of preposition in this syntactical structure was evident after a period of time. Acknowledging the differences between the L1 and L2 conventions led the learners to reflect on their metalinguistic knowledge after

extensive hypothesis testing. Interview revealed that learners felt that internalization of the new accepted form was greater because of the differences.

I think I was able to remember better because they were different. Saya selalu guna 'with', like here 'with 97%', but when I realized it was different... so when I write, ahh...I remember...it should be 'at'...especially bila guna lagi lepas tu betul... like this one here in writing task 2...when I used 'at'...betul...so, next time like here in posttest...saya guna 'at' lagi. Sebenarnya sebab different dan salah guna buat saya conscious when I write, because you see I always used 'with' before...that sounded right to me, but 'at' also sounds ok, so... saya ingatlah nak guna 'at'...cumanya sebelum ni tak tahukan.

I think I was able to remember better because they were different. I always used with, like here 'with 97%', but when I realized it was different... so when I write, ahh...I remember...it should be 'at'...especially when the next time I used 'at', it was correct... like this one here in writing task 2...when I used 'at' ...correct...so, the next time like here in the posttest...I used 'at' again. The fact that it was different and I got it wrong made me conscious when I write, because you see I always used 'with' before...that sounded right to me, but 'at' also sounds ok, so...I will remember to use 'at'...only I didn't know that before.

Participant 23 admitted that the difference between the two language systems made her more aware of the target like use. The CF pointing out the inaccurate use and the discussion during the pair talk helped her to be more accurate in subsequent written tasks.

The second criterion that influences uptake and retention of the CF in relation to the use of L1 is the learners should be willing to change their language convention despite their reference to the L1. This is similar to the reflective functions discussed above where learners who were willing to change their language belief tend to demonstrate greater uptake and retention of the corrections. In relation to using L1 to deliberate on the CF, the same reflective condition applies. When the learners acknowledged that the features in the L1 and L2 are different, they should then be willing to change their language use to the target like uses. Even though they did acknowledge the difference, the

unwillingness to move from the existing language conventions to the target like forms hindered uptake and retention of the CF. The extract below illustrates the use of L1 in the LREs and the learners' willingness to accept the new uses of the focused language feature.

FCF Pair 6 Collaborative Dialogue 2

1	FCF PT-12	Next errorpreposition 'in the
2		contrary' 'in' is underlined
3	FCF PT-11	'in the contrary'prepositionmeans you
4		have to change 'in'cannot use 'in'how?
5		Maybe change to 'at the contrary'
6	FCF PT-12	'at the contrary'mmmmeans 'pada
7		sebaliknya' (literally translated as at
8		contrary)maybe I don't need 'the', just 'at
9		contrary' because that sounds the same like
10		pada sebaliknya
11	FCF PT-11	But we use 'sebaliknya', no 'pada', so
12		'contrary' only?
13	FCF PT-12	mmmthat doesn't sound right maybe
14		BM is not the same cannot compare
15	FCF PT-11	Yesif we use 'in contrary' no 'the'?
16	FCF PT-12	But here 'in' is underlined, not 'the'.
17	FCF PT-11	But I think 'in the contrary' is ok
18	FCF PT-12	Maybe we can use like 'on the other
19		hand' 'on the contrary'
20	FCF PT-11	Yes ok 'on the other hand'I always
21		use 'in', but ok let me write this 'on the
22		contrary'

Both learners showed uptake when they used similar sentence structure in the immediate posttest and it was retained in the delayed posttest. Below are the extracts taken from FCF Participant 11 of Pair 6 for immediate and delayed posttests.

Immediate Posttest:

On the other hand, the least used feature was 'send message'.

Delayed Posttest:

On the contrary, Thailand had a low number of subscribers in 2005.

The LREs analysis showed that learners who were willing to change their language uses despite the fact that the new accepted forms were different from

the L1 system were able to internalized the new language use over a period of time.

Finally, the third condition for the L1 references to be facilitative is when the L1 features are similar to the L2. Although this condition was quite rare, the similarity between the two language features helped the learners to make appropriate corrections and to some extent gave them confidence of the corrections that they agreed upon during the deliberations. Below is an example of the LRE illustrating this third provision.

FCF Pair 7 Collaborative Dialogue 1

```
1
                  This one here...P error...preposition... 'the
    FCF PT-13
2
                  number of users increase of 89%...'
3
    FCF PT-14
                  Which one is underlined...mmm... 'of'... 'of
                  89%'... increase... meningkat
4
5
                  Kalau meningkat...(if it increases)
    FCF PT-13
6
    FCF PT-14
                  Yes... 'meningkat kepada 89%' (increase to
7
                  89%), so... 'increase to 89%', not 'of 89%'...
8
                  Yes... of course... 'kepada' is 'to'...ok...let
    FCF PT-13
9
                  me change this... 'increase to 89%'
```

In the example above when FCF Participant 13 (lines 8 and 9) acknowledged the similarity between 'kepada' and 'to', she immediately made the correction as agreed in the discussion. During the interview with this participant, she admitted that she was feeling confident with the correction compared to other corrections on preposition in her written work because the feature of the target language is similar to the her L1, which is Bahasa Melayu.

Yes...masa buat correction ni, saya confidentlah dengan correction because... mungkin sebab in BM pun sama. Not like correction yang lain tu, macam yang...mmm... ni... 'the number of users'... we discussed and friend suggested to add 'of' sebab bila saya tulis 'the number users', she said ayat saya bunyi macam salah. We were not

very sure, tapi my friend suggest tu bunyi macam ok...boleh diterima lah. But this one...I was sure...'increase to 89%.

Yes...when I made this correction [referring to the extract above], I felt confident with the correction because... maybe because in BM it is also the same. Unlike other corrections, like ... mmm... this one... 'the number of users'... we discussed and my friend suggested to add 'of' because when I wrote 'the number users', she said that my sentence sounded wrong. We were not very sure, but what my friend suggested sounded ok...acceptable. But this one... I was sure... 'increase to 89%'.

As suggested by De La Colina & Garcia Mayo (2007), L1 is a useful tool in facilitating L2 learners in their metatalk engagement and collaborative task completion. It was asserted that should these low-proficiency learners been deprived of using their L1 "they would not have been able to deploy their cognitive resources to reflect verbally about the L2." (De La Colina & Garcia Mayo, 2007, p. 110). Even though the participants in the De La Colina & Garcia Mayo study were low proficiency EFL learners, in the case of the present study with intermediate ESL learners, L1 can still be a valuable tool for learners to deliberate on the CF and to reflect on their metalinguistic knowledge. L1 in this condition provided means for further "externalizing and vocalizing their thoughts" when faced with difficulties verbalizing their views in the L2. The Storch & Aldosari (2010) study which involved EFL learners whose first language is Arabic found that learners mainly used L1 to manage tasks and deliberate over vocabulary. However, in both the De La Colina & Garcia Mayo and the Storch & Aldosari studies, the manner of how those learners used L1 to guide their grammatical decisions was not articulated. Thus, comparisons cannot be made with the findings of the present study in relation to the use of L1 in the deliberations over linguistic features during the collaborative dialogues. Nevertheless, as suggested in the previous studies mentioned here as well as the present study, L1 plays varied roles in facilitating the learning process.

Findings from the present study suggest that L1 was one of the influencing factors in enhancing reflective function leading to feedback efficacy for the uptake and retention of linguistic accuracy in learners' written work. The Park (2013) study investigated the L1 influence by Japanese and English speakers of Korean foreign language learners. Similar to the findings in the De La Colina & Garcia Mayo study, learners tend to use their L1 in assessing the L2 in terms of lexical and syntactical features of the target language. With some limited knowledge in Korean, the L1-English learners of L2 Korean used their L1 in generating questions on the input text. Based on these learner generated questions, it was inferred that learners' L1 influenced the learning process differently in terms of the different L1 as well as the level of knowledge a learner had on the L2. Even though this study was analysed at individual level, similar to the present study of which the task was completed collaboratively, the participants used the partially acquired knowledge in their interlanguage system to deliberate and scaffold each other and as well as themselves. The participants in the present study used the L1 to test their hypothesis and to reflect on their metalinguistic knowledge in the deliberations of the CF in their written work. By having this opportunity to assess their language decisions using L1 as one of the tools, these learners demonstrated greater uptake and retention of the CF in the long run.

However it was observed that these participants used their L1 only for features that exist in the L1 system. In the case of the present study, one of the features focused in the analysis that seems to exist in both L1 and L2 was prepositions. They did not refer to their L1 when discussing SVA and articles since theses two forms are not available in the Bahasa Melayu system. Interview revealed that the participants did not even give it a thought on this difference but

they intuitively know that the systems in the two languages are not the same. One of the participants mentioned that he did not know how to describe this condition but he said that he "just knew". Another participant said that she may not be able to explain the rules but she gave an example showing this condition; "like when we say he goes or they go, in BM, dia pergi dan mereka pergi, the same, you don't change the word pergi." It was also the same with articles because articles are not available in the Bahasa Melayu grammar system. In making the corrections for both SVA and articles, the participants depended much on their existing linguistic knowledge and scaffolded each other in deliberating over the CF provided on these two linguistic forms.

It should be noted that constrained by the language limitations of the researcher, this L1 influence was described only for the majority of the participants whose native tongue is Bahasa Melayu. The Chinese participants discussed completely in English. The Indian participants paired up with Malay participants so they used English and Bahasa Melayu during the collaborative dialogue. Therefore, for both Chinese and Indian participants it was not possible to make a deduction of whether their L1 had any influence on their deliberations over the corrective feedback on the three linguistic features.

Based on the findings discussed above, the learners' L1 can be deduced to be a significant factor influencing their reflections over the linguistic knowledge and the CF that they received directing their focus on the gaps that exist in their current linguistic knowledge. Evidence from the LREs and the interviews analyses discussed in this section provides constructive evidence on the roles the noticing, hypothesis testing and reflective functions in the learners' language development. Drawing on these functions, the factors described above have been identified to have contributed to the uptake and retention of the CF

provided for the targeted linguistic forms in written work. The following section discusses other significant relevant findings acquired from the interviews analysis.

5.2 Findings of the Interview Analysis

The findings from the interview analysis also address the fourth research question investigating the factors that influence the two feedback types efficacy. The main purpose of the interviews was to explore this question from the learners' point of view in order to provide support to the inferential findings concluded from the LREs analysis as well as from the statistical interpretations. 15 participants from each treatment group were selected based on their accuracy scores in the three tests. 12 participants from the unfocused group and 10 from the focused group that showed increase in the scores from the pretest to the immediate and delayed posttests were interviewed. 3 participants from the unfocused group and 5 participants from the focused group that showed no improvement or a slight decrease in the accuracy scores were interviewed to find out factors that may have hindered uptake and retention of the accurate use of the three targeted structures.

The descriptions of the analysis begin with the strategies that the participants employed in responding to the feedback provided on their written work. Prevailing findings form the interviews described as factors indentified to be related to the linguistic features and the nature of the tasks given during the two treatment sessions were presented in the following subsections. Affective factors such as attitudes and beliefs that may have influenced uptake and retention are also described in this section.

5.2.1 Linguistic features

In order to identify factors that may have influenced the uptake and retention of the CF provided for the targeted linguistic forms, one of the foci of the interview was to inquire the participants on their views towards the linguistic features. According to Ferris (2006), forms that are rule-governed such as verb tense, subject-verb agreement and articles can be categorised as "treatable" errors since learners may be able to refer to specific rules in making corrections. Bitchener & Ferris (2012) have also assumed the effectiveness of written corrective feedback in improving accuracy of these treatable errors based on findings from previous studies (e.g., Bitchener et al., 2005; Ellis et al., 2008; Sheen, 2007). On the other hand, forms that are categorised as "untreatable" errors may not have a "set of rules [that] students can consult to avoid" in making corrections (Ferris, 1999, p.6). In the present study, subject-verb agreement and articles are two linguistic features that are considered as treatable errors, while prepositions which are more idiosyncratic are classified as untreatable errors. Since Bitchener & Ferris have asserted that studies should consider investigating CF efficacy on the untreatable errors, the present study attempted to explore this matter from the learners' perspectives. The interviews and the LREs analysis examined whether these linguistic categories influenced the learners uptake and retention of the corrective feedback.

Interviews revealed that most participants felt that subject-verb agreement errors were difficult to correct because the feedback provided was usually longer than the ones given for articles and prepositions. Article errors were regarded as the easiest to correct because they just needed to change one word, since it was to correct errors on the use of "a", "an", "the" or to omit the article from the sentence. For most participants, they felt articles are the easiest

to correct and they claimed that they were able to remember the correct uses in subsequent writing tasks.

When asked during the interview on which linguistic features that they remember receiving CF on, a number of the participants mentioned articles and prepositions. A participant from the UFCF group answered:

Yes, I remember articles, spelling, word choice and prepositions, (looked at her written work), and I think articles were the easiest to correct because I need to change one short word. Only change 'a' or 'an' or 'the' or add or omit the article... easy to remember.

Another participant said that apart from articles, prepositions were also easy to correct because they are short:

Preposition was also quite easy, just one word, easy to remember, but sometimes, we were not sure, because we thought the one that we used was correct but it was wrong, so we discussed and came up with corrections. We helped each other to make corrections

Participants claimed that prepositions were easy to correct since it involved just one short word. However, it was more difficult compared to articles since, most of the time, they were not sure of the correct forms themselves. This condition may indeed be explained by the categorization made by Ferris (2006) which places preposition as untreatable error since prepositions are more idiosyncratic and are less rule-governed. Participants were not able to explain why the use of certain prepositions was wrong and it was not easy to reflect on the grammar rules since the rules for preposition uses are not as fixed as the ones for articles.

The most common reason the participants who claimed that SVA was difficult to correct was because SVA errors occurred in long sentences and that when the SVA errors were underlined, it may be confusing. This is especially true when the subject and the verb were not positioned consecutively. An example given by the participant during the interview illustrates this matter:

Here (pointing to her written work), I am not sure which one is the subject, maybe verb...here...this one "....", but the subject... I'm not sure, since the sentence is long.

The sentence that this participant was referring to is given below with the phrase that contained the SVA error underlined and "SVA" was written above the underlined phrase in the participant's script indicating the type of error:

<u>Internet Explorer as one of the most popular web browsers are</u> installed in computer without charge

The participant knew that "are' was the verb of the sentence, and she was certain that the subject that should agree with the plural verb should be "web browsers". She was confused why error had been committed here because the subject in question was not placed right before the verb. After deliberation during the pair talk, with the help of her partner, she changed the verb "are" to "is" since she was able to identify the correct subject of the sentence, which is "Internet Explorer" that should agree with the verb, and managed to correct the error. Another participant also admitted that SVA error can be confusing because of the length and sometimes it was difficult to distinguish which one was the subject or the verb.

I think SVA was difficult to correct because usually it was long and the subject and verb...we sometimes were not sure which one and we were not sure which one to change, the subject or the verb. If the part that was underlined was quite short, then it was ok... the subject and verb next to each other, so shorter...easier to know which one was the subject or the verb.

Most participants who felt that SVA was difficult attributed this condition to the confusion due to the length of the phrase of which the SVA error was committed and the position of the subject and the verb where the error occurred.

However, despite their belief of this difficulty faced in correcting SVA errors, statistical results still showed significant increase from the pretest to the posttests. This may be explained by the fact that the amount of LREs generated in deliberating the CF provided for SVA was high at 83% for the FCF group and

92% for the UFCF group (refer to Table 5.1.1.2, p.150 for further details). As has been discussed in the earlier sections of this chapter, one of the main provisions for the learners to take up and retain the CF was to attend to the feedback that they received. The high percentage of the CF attended to for both groups suggest that participants exercised the three Output Hypothesis functions extensively, thus, the likelihood of uptake and retention would be greater.

Even though they felt that sentences are long and can be confusing, since there are systematic rules for the form, they discussed extensively, producing a considerably large number of LREs during the pair talk, compared to prepositions and articles. Refering to Table 5.1.1.2, LREs were least generated in deliberating corrections over articles. Articles are categorised by Ferris (2006) as treatable errors since they are systematically rule-governed. However since it was just one short word, the length of discussion was fairly short. Based on the LREs analysis, the participants in both groups, especially the unfocused group skipped deliberating over articles the most, thinking that it was easy and each time it was the same. A participant from the UFCF group mentioned,

I think I can easily know if the errors were articles, because they are the same, so I just change, no need to discuss.

This view was shared by a number of the participants attributing the lack of attention to the belief that most CF on article were similar and easy to correct without much need of extensive discussions. For the UFCF groups that received corrective feedback on an extensive range of errors, the CF on article was seen as among the easiest to distinguish and make corrections. With this notion in mind, they tend to make corrections without deliberating over the error. This has resulted in greater uptake since the participants seemed to be able to make corrections easily. However, with the lack of rigorous exercise on the three

Output Hypothesis functions, retention slightly declined. This pattern was plotted in the statistical results showing significant difference in the immediate posttest between the UFCF group and the FCF group scores means but there was no significant difference between the two groups in the delayed posttest (Refer to Figure 6 in Chapter 4 for the plotted line graph). Whereas the trend of attending to CF remain constant in all the three linguistic forms for the FCF group, thus the constant pattern in the statistical results, the UFCF group demonstrated this similar pattern on only the CF provided for articles.

As discussed in Chapter 4, even though the significant difference was not attained in the scores means for the three linguistic forms in general, there was a pattern indicating that the UFCF performed slightly better than the FCF group. This was mainly due to the fact that participants in the UFCF group tend to discuss most of the CF provided since it was not easy for them to distinguish one CF from another. The participants in the FCF group received CF on only three forms, thus it was easier for them to identify the CF for the three linguistic forms resulting in them producing lesser LREs which was an indication of lesser application of the three Output Hypothesis functions (Refer to Table 5.1.1.2, p. 170, for details on the amount of CF attended to and the number of LREs generated).

In other words, when the participants exercised all three Output Hypothesis functions extensively, the scores means suggest constant performance in both the uptake and retention, as indicated in the immediate and delayed posttests. But when the learners were able to make corrections without much deliberation on the CF, uptake seemed to be greater than the retention. Even though retention was still evident, the average results suggest a slight decrease compared to the immediate posttest. What this condition implies is that

for the learners to be constant in the accuracy scores in both uptake and retention, they should exercise all the three functions extensively. The ability to identify the errors and automatically in making corrections may lead to greater uptake in the subsequent written tasks, but a slight decline in the long run. Nevertheless, it should be noted that this slight decline did not contribute to the decrease in the statistical results. The groups that received the CF treatment were statistically proven to perform significantly better that the control group.

The condition described above is the pattern that was mainly contributed from the perspective of individual performance. Inferences made from the LREs and the interviews also revealed that participants felt that prepositions, similar to articles were easy to correct since they are short and easy to remember. However, unlike articles which are treatable due to their rule-governed nature, the participants admitted that at times they were not very certain of the corrections that they came up with. This uncertainty led the participants to attend to the CF on prepositions more comprehensively than the CF on articles which they considered easily identifiable amongst other CF on other linguistic features. Despite the participants' uncertainty of the corrections that they came up with for prepositions, they managed to make accurate corrections and this was statistically proven as discussed in the previous chapter. The group scores means indicated significant improvement from the pretest to the immediate and delayed posttests. Interviews revealed that most participants felt that the pair talk actually helped them in making corrections for prepositions and that they believed that they would not be able to come up with more accurate corrections should they have worked on their own. The pair talk that provided the means for noticing, hypothesis testing and metalinguistic reflections was essential in facilitating uptake and retention of the CF in written tasks.

In the Bitchener et al. (2005) study, learners who were provided with direct written CF with oral conference seemed to also benefit more of the CF provided compared to the group that received only written CF. The teacherstudent conference that was carried out for about five minutes after the participants received the feedback for their written work may have focused their attention towards the CF provided. Even though the significant difference was only found for the past simple tense and the definite articles, the pattern indicating better performance demonstrated by participants receiving written CF and oral conference was evident. In relation to the present study, the results for prepositions performance scores were different. In the Bitchener et al. study, there is a fluctuating pattern to the performance of the learners over a period of 12 weeks. In contrast, participants in the present study demonstrated constant performance in the accuracy scores from the pretest to the immediate and delayed posttests. It is probable that in dealing with idiosyncratic and 'untreatable' errors, learners required more attention and deeper processing of the CF. A five-minute oral conference may not be sufficient to facilitate uptake and retention consistently. However, as expressed by the participants in the present study, the pair talk that had generated LREs direct the learners' focus towards the CF they received had enhanced the level of uptake and retention. A participant commented on the value of the pair talk in making corrections.

Even though for prepositions it can be quite confusing and I was always not sure of the correct form, but having to discuss the feedback and the errors helped me be more confident with the corrections that we agreed on.

It can be concluded that linguistic forms that are categorised as 'untreatable' seem to require a deeper and more extensive attention focused in processing the CF that the learners received. In the present study, the pair talk enhanced this

process leading to more accurate corrections even for prepositions which are categorised as untreatable error. The learners were more confident with their corrections since they deliberated over the errors extensively and they scaffolded each other with their linguistic knowledge. As Storch & Wigglesworth (2010) suggest that this process provided them with support from their peers in terms of 'immediate feedback' and more resources in the linguistic knowledge for the deliberations of the CF.

The Ferris (2006) study that has discussed the CF efficacy on different error types suggested that indirect CF tend to have a long term effect compared to the direct CF. In the present study, since the indirect CF was employed with either focused or unfocused CF, the retention of accuracy was evident over a period of time. What the Ferris study also revealed was that teachers seemed to intuitively provide direct CF for untreatable errors. Explicit corrections may reduce learners' opportunity for the deeper and extensive processing of the CF, which may hamper the "guided learning and problem-solving" process, proposed by Lalande (1982). The interview conducted in the present study revealed that some learners felt that they might be able to make more accurate corrections for prepositions if they were given direct CF. Since they were not very certain of their corrections they tend to expect the corrected forms provided by the teacher.

We were not sure if the corrections were accurate. For prepositions, sometimes we thought they were correct, but actually they were wrong, so maybe if we can have the corrected form for preposition errors that would be better, at least we can be sure of the corrections.

Participant 1 expected direct correction for prepositions errors because of there was specific rules that she can refer to in making corrections. She felt that direct corrections may help her to be certain in the target like use of the prepositions.

However, similar to the findings in the Ferris study, regardless of the level of explicitness, learners were still able to make accurate corrections. Even though the participants in the present study admitted that they were not certain of their corrections specifically on preposition errors, the success in making corrections was considerably high as indicated in the scores means of both CF groups (over 80% for UFCF group and over 78% for FCF group, see Table 4.2.1.1 Chapter 4, p. 133). Therefore, it can be deduced that even though learners were provided with indirect CF, they were still able to come up with accurate corrections as proven in the statistical results showing significant increase from the pretest to the posttests for both treatment groups. The deeper processing of the indirect CF for either focused or unfocused corrections was enhanced by the pair talk which directed the learners' attention to the targeted forms of which they exercised extensively the three Output Hypothesis functions leading to greater uptake and retention over a period of time.

It can be inferred that linguistic features influenced the uptake and retention of the CF of the three targeted linguistic forms in written work. The rule-governed errors, especially subject-verb agreement generated the most LREs during the two pair talk sessions. Article which is also treatable error however, due to it being short generated much lesser LREs thus slightly reducing the efficacy in the long run. Prepositions which are untreatable errors were considered short and easy to remember. But, since there are not specific rules that learners can refer to, even though the LREs generated were more than articles, learners were less certain in the corrections that they came up with. By providing the indirect corrections with either FCF or UFCF learners were able to generate more LREs and engaged in a deeper processing in making corrections thus enabling them to take up and retain over a period of time. The following

section discusses task-related factors which were identified to have influenced the uptake and retention of the CF on the three targeted linguistic forms in written work.

5.2.2 Task-related factors

One of the emerging themes deduced from the interview was task-related issue. This section will discuss factors that were identified to have effects on the Output Hypothesis functions which influenced the uptake and retention of the corrective feedback. Discussion focuses on affective aspects which highlight the attitude of the learners towards the number of treatment session, the length of the writing tasks, the duration of the pair talk and their perception towards working with peers in the collaborative task.

5.2.2.1 Learners' Attitude towards the Importance of the Task

Previous studies discussed various affective factors that may have influenced the learners' performance in the learning process. Hyland (1998) suggests that positive or negative comments affect the students' motivation to learn and this condition is very much individually and culturally influenced. Learners in the Hyland (2003) study were shown to be highly motivated and systematic in revising their writing based on the feedback they received and this condition has been assumed to have led to improvement in language accuracy. Learners believed that receiving feedback for their written work repeatedly would facilitate noticing of the gaps in their language production and gradually improving their accuracy. The importance the learners put on grammatical accuracy was also one of the factors discussed in previous studies in relation to the affective issues influencing uptake and retention of the CF.

Learners are more inclined to take up the corrections and retained the accuracy in subsequent written tasks when they believe that it is important to produce grammatically correct writings (Hyland, 1998; Storch & Wigglesworth, 2010). In the present study, the participants who were interviewed expressed their views on the importance of grammar accuracy positively. They believed that it is very important to be able to write accurately so that they message conveyed to the audience will not get distorted. This view was expressed by most participants regardless of whether they have demonstrated constant uptake and retention or showed no change or slight decrease in the accuracy scores from the pretest through the delayed posttest. Since they shared the same view on the importance of grammar accuracy, one aspect that may differentiate them in determining the facilitative effects of the extent of CF treatment was the attitude these learners have toward the tasks that they were required to complete. This attitude includes their perceptions towards the number of the treatment session, the length of the written work and the pair talk that they carried out to deliberate over the CF they received.

5.2.2.2 Learners' Attitude towards the Treatment Tasks

With regards to the number of the treatment session, the Bitchener & Knoch (2010) study suggests that with just one feedback treatment session, the participants in the study demonstrated an increase in the accuracy scores in the posttests. However, it was noted that only learners that received metalinguistic explanation in the CF were able to retain accuracy in the long term as proven in the delayed posttest conducted 10 weeks after the pretest. Learners who were provided with indirect CF were only showing an increase in accuracy in the immediate posttest administered right after the treatment session.

The present study employed either focused or unfocused indirect CF for the feedback treatment focusing on three target structures in written work. As stated in the Bitchener & Knoch study, the findings presented in the study were only focused on article uses which is categorised as rule-based form that is treatable and that may be one of the reasons why with only one feedback treatment session the learners were able to improve accuracy. Thus, it was suggested that further studies should be carried out to investigate the effects of this condition on the more complex and idiosyncratic linguistic forms.

Therefore, working on this proposition, the present study had included one "untreatable" linguistic form, which was the preposition in addition to two rule-based items, which were the SVA and articles. To compare the findings from the present study to the Bitchener & Knoch study, a number of methodological differences in the two studies should be noted. The participants in the Bicthener & Knoch study were advanced L2 learners with experience living in an English speaking environment, while the participants in the present study were intermediate L2 learners with no experience living in an English speaking environment. The three condition groups in the former study were provided with written metalinguistic explanation either with or without form-focused discussion and indirect corrective feedback.

The participants in the present study were provided with indirect correction with either focused unfocused corrective feedback. Even though these differences exist, in general, results in both studies showed an increase in accuracy over a period of time. However, unlike the participants receiving the indirect CF in the Bitchener & Knoch study who were not able to retain accuracy, in the present study, although the participants received indirect

corrective feedback, both focused and unfocused groups showed increase in the immediate and delayed posttests.

Another difference that was mentioned earlier was the proficiency level of the participants in both studies. The present study which involved intermediate undergraduate students carried out two treatment sessions incorporating written CF and pair talks to deliberate over the CF provided in the correction process. In relation to the treatment sessions, it was revealed during the interview with selected participants that the number of the tasks the participants were required to complete had some influence on the uptake and retention of the CF provided for the target linguistic features. With advanced learners in the Bitchener & Knoch study, one feedback treatment session was sufficient to facilitate increase in the accuracy of the targetted linguistic item. However, in the present study, learners who were interviewed admitted that they needed a lot of practices in order to improve accuracy in written work.

Participants who believed that they needed more practices tend to be more motivated to complete the tasks and they were more attentive towards the CF provided. On the other hand, participants who felt that they did not need as much practice tend to be less attentive in completing the tasks during the treatment session. To illustrate this condition, a comparison of four participants in the LREs occurrences from the two pair talk sessions deliberating over CF provided for SVA errors is presented in Table 5.2.2 below.

Table 5.2.2: Amount of CF, LREs occurrences and test scores for comparison

	Amount of	LREs	Immediate Posttest	Delayed Posttest
	CF	Occurrences	Score (%)	Score (%)
UFCF PT-1	8	8	72	75
FCF PT-9	7	7	71	73
UFCF PT-3	7	4	76	74
FCF PT-4	9	5	72	71

UFCF PT-1 and FCF PT-9 were the participants who felt that the two treatment sessions were beneficial and that the length of time spent to complete the task was reasonable. UFCF PT-3 and FCF PT-4 admitted during the interview that they felt two treatment sessions were too long and doing the same thing twice made them feel bored easily and it was difficult for them to stay focused during the discussion of the CF especially in the second pair talk session. FCF PT-4 said,

I think two times are too long especially doing the same thing. The pair talk took too long and I got bored and cannot concentrate especially the second time. First time, it was not so bad, this pair talk to discuss errors was new, but the second time, the same thing and the same type of writing...I think once was ok.

On the contrary, FCF PT-9 mentioned that she benefitted a lot from the two sessions.

The task...the discussion helped me a lot...this is something new... to discuss your errors with your friend and I think if I can do this for most of my work that would be ok because I get help from my friend every time I want to make correction...so two times...ok with me...very helpful.

The comparison table above shows that these participants received more or less similar amount of CF on SVA, However, the number of LREs produced by UFCF PT-1 and FCF PT-9 were higher than the LREs produced by UFCF PT-3 and FCF PT-4. The number of LREs produced by the latter participants greatly reduced in the second pair talk session. Referring to the tests scores, even though the differences in the immediate and the delayed posttests scores did not amount to significant decrease, but there was a slight decrease in the scores of UFCF PT-3 and FCF PT-4 compared to the scores of UFCF PT-1 and FCF PT-69 This indicates that when learners were more motivated and attentive toward completing the task, they tend to produce more LREs which was an indication

that they were pushed to notice, extensively test their language hypothesis and reflect on their metalinguistic knowledge. By having gone through these functions rigorously, they were able to take up the CF and retain this accuracy over a period of time.

What the interview revealed was that in addition to the importance that the learners put on grammatical accuracy, they should view the task that they were doing as important and helpful. All the four participants described above claimed that grammatical accuracy was important and they did feel the need to improve their proficiency level so that they can write better. UFCF PT-3 admitted that when he was writing assignments for the content courses, the lecturers frequently asked them write in a clearer language that is error-free, so that language problems do not become the hindrance to relaying the content of the writing.

Yes, of course I think grammar accuracy is important. When I write assignment, I need to be clear, sometimes when I had so many errors, the lecturer cannot understand the content. This is a problem for me. I need to improve my language so that my writing can be better and clearer.

This belief is shared by all the four participants described above. However, they differed in their views towards the tasks that they were required to complete. Another participant suggested that the type of writing tasks should be different so that each time they completed the task they would not feel like repeating the same thing. This repetitiveness was what made the activity became boring and monotonous. This attitude towards the task led to lesser hypothesizing of the corrections and reflections on their linguistic knowledge, thus, immediate effect was evident but a slight decrease was found in the long run. But this condition is highly individual since other participants claimed that they felt that they needed more practices and that the two sessions helped them improve. The positive

attitude towards the task seemed to make the two-session treatment sufficient which led to willingness to extensively hypothesize in making corrections and reflect on their linguistic knowledge leading to internalizing the knowledge that they gained from the written corrective feedback and the pair talks. Nevertheless, it should be noted that the influence of the attitude towards the task was highly inferential and that statistical results were not able to specifically highlight the effects of this attitude towards the performance. What can be tentatively deduced from this condition, based on the LRES analysis and interviews with the participants, is that positive attitude towards the tasks led to greater application of the three functions of Output Hypothesis leading to greater uptake and retention of the corrective feedback in subsequent written tasks.

5.2.2.3 Learners' Attitude towards the Length and the Types of the Writing Tasks

Another aspect related to the task that was noted from the interview was the length of the written text that the participants were required to complete. For each writing task, the participants were asked to write a 200-word description based on the graphic prompt. A number of participants who were interviewed admitted that the length of the written work made the discussion too long since the text written was long. A participant who expressed his view over the pair talk duration stated that 200 words were a lot to write and discussion on the CF provided was also long and the longer the discussion, the less attentive they became.

I think the discussion took a long time because the text written was too long. My writing here for example (referring to his writing task 1), I think this is more than 200 words, and when we discussed the feedback, it took a long time to finish, I cannot concentrate towards the end... too many...maybe if the text is shorter, then the discussion doesn't have to be that long.

Participant 13 was not able to stay focus for long and lack of concentration during the pair talk may have influenced the effectiveness of the task. Several participants during the interview suggested that the length of the text should be about 100 words and they also said that writing on different topics would be more interesting and less monotonous.

I think 100 words should be ok...that would take less time to finish and less time to discuss.

Another participant mentioned,

A shorter text would be better, around 100 words and maybe it would be less boring and repetitive if we can write on different things...not just graph description. Maybe if we write on different things, when we discuss the feedback we would not feel like we were doing the same thing, discussing the same thing again.

Even though there were participants in the study who felt that 200-word paragraph was acceptable and sufficient for practice, the different views that other participants have on this aspect should not be overlooked. As the Hartshorn et al. (2010) study pointed out that corrective feedback that the learners receive should be "meaningful, timely, constant and manageable". This approach employed for the process writing instructions attempting to tackle individual needs was termed as dynamic written corrective feedback (dynamic WCF). The corrective feedback was considered meaningful when each learner is able to take up the responsibility of making corrections based on the indirect feedback that they received and keeping track of their own errors and improvement. Consistency and timeliness were essential in ensuring the feedback to be meaningful and for this purpose, learners were required to complete written task in almost all class meetings of which corrective feedback is provided in the following meetings. Aiming for manageability, this feedback approach required

learners to write short 10-minute paragraphs on a variety of topics. This shorter writing tasks were also employed to enable teachers to be more comprehensive with regards to the "quality and completeness" in attending to the written work when providing corrective feedback. Findings from this study indicate that the learners who were provided with this dynamic correction had improved their language accuracy in the posttest compared to the learners receiving traditional instructional approach.

In relation to the present study, this dynamic corrective feedback approach may provide the participants who expressed their views on having to write shorter paragraphs a more manageable task to complete. By having shorter writings, the duration of the pair talk may also reduce, facilitating the learners' concentration on the feedback deliberations. Another aspect that may have influenced the learners' attentiveness and concentration in the writing task and the pair talk was the varied writing topics. A number of participants who were interviewed admitted that having to write the same type of writing can be monotonous and it would be more interesting if they were given the opportunity to write on a variety of topic or themes. However, these issues on the length and the topic of the writing tasks were individual and in general it did not have an effect on the statistical results. These aspects were mentioned by the participants during the interview but the effects they have on the accuracy scores cannot be conclusively determined.

What can be categorically deduced here is that the participants who expressed their views on having the shorter writing tasks admitted that they tend to lack concentration during the pair talk since the felt that the discussion took too long. This has resulted in the reduced number of LREs produced especially in the second pair talk session. This reduction of the LREs led to the decrease in

the Output Hypothesis functions which were integral in facilitating uptake and retention of the CF provided for the targeted linguistic forms. As has been discussed in the previous subsections, learners who employed the Output Hypothesis functions rigorously tend to show greater uptake and retention over a period of time.

In short, the question of the length and the duration of the treatment still need further research. In the context of the present study it could be cautiously assumed that the treatment can be considered sufficient when it is able to trigger the thorough use of the three Output Hypothesis functions. If this was not achieved, the facilitative effects of the corrective feedback and the collaborative dialogues may have been greatly reduced. Even though this deduction is highly inferential, this is the condition that the interview and the LREs analysis have strongly suggested.

5.2.2.4 Learners' Attitude towards the Peer in the Pair Talk

Another influencing factor that may affect the efficacy of the pair work in enhancing greater uptake and retentions of the CF was the participants' perceptions towards the partner they were working with. Since they were given freedom to choose their own partner for the treatment session, the comfort level in discussing their errors in the written work did not pose a problem. A participant admitted that she was very comfortable working with her partner and found that working collaboratively to make corrections helped her more than working on her own.

I was very comfort work with my partner. We are in same class since first semester, so it was alright I discuss the errors I make in my writings. Discussion with her to make corrections banyak membantulah. Saya tak dapat buat semua corrections tu sendiri

sebab saya mungkin tak tahu semua correction...mmm...we help each other.

I was very comfortable working with my partner. We have been in the same class since the first semester so, it was alright with me to discuss the errors that I made in my writings. Discussion with her to make corrections helped me a lot. I would not have been able to make all those corrections on my own because I may not know all the corrections...mmm... we helped each other.

Another participant stated that working with a partner was better than working on her own in making corrections.

I think I liked work with a friend lebih lagi dari work alone especially make all the corrections. I am comfortable work with her and we help each other a lot...kalau saya work alone mungkin tak dapat concentrate mungkin saya tak dapat buat semua correction sebab setengah tu... saya tak tahu correction...saya tak tahu kenapa salah ... my friend tolong explain kenapa salah.

I think I liked working with a friend more than working alone especially in making all these corrections. I was comfortable working with her and we helped each other a lot...if I were to work alone I might not be able to concentrate and maybe I was not able to make all the corrections because some...I did not know the corrections...I did not know why I was wrong...my friend helped me explain why they were wrong.

From the interviews it can be deduced that most participants were comfortable working with a peer in deliberating over the feedback and the collaborative effort to come up with corrections helped the learners more than working on their own. Since they felt comfortable working with each other, they did not hesitate to give comments or ask for explanation on the CF provided for their written work. It is crucial to establish this condition to ensure the whole treatment process which involved the written CF and the pair talks to be facilitative for uptake and retention.

One aspect of being comfortable working with a peer can be attributed to what the Yoshida (2008a) study suggested, that is satisfaction towards the role the pair work which influenced the effectiveness of understanding the corrective

feedback in the pair work. Intersubjectivity, which is described as "sharing of events and goals of a task cognitively and socially" was found to have influence on the efficacy in pair work. The pairs that did not establish intersubjectivity were not satisfied with the role they played in the pair work viewed the activity negatively thus affecting their learning development. In other words, the learner who did not manage to reach understanding of the partner's corrections and comments tend to perceive the pair work and their partner's as well as their roles negatively. In the present study, the participants who felt comfortable with the roles that both of them played in the collaborative dialogue seemed to share similar goals, thus deliberation over the CF were carried out extensively. Their shared goals were primarily to make accurate corrections and to be able to use the correct forms in subsequent writing. When both partners shared these same goals, the three Output Hypothesis functions that took place throughout the treatment process was greatly enhanced leading to constant uptake and retention of the CF. In short, when the participants were satisfied with the role they played in the pair talk, they were able to establish intersubjectivity and thus sharing the same goals, making the collaborative dialogue more comfortable and facilitative to the learning development.

Apart from being comfortable working with their pair, the perception the participants have on their partner's language proficiency may also have some influence on their collaborative task. One of the aspects that may have been affected by this condition is the confidence level over the corrections that they agreed upon. When they perceived their partner to be proficient they were more certain of the corrections that they came up with. A participant revealed in the interview that the collaborative dialogue helped her a lot since she viewed her partner as highly proficient.

My partner is very good in English. When we discussed, I was sure that she can help me with the corrections.

Another participant admitted that she relied on her partner's language ability very much during the pair talk.

I was glad that I was working with her (referring to her partner) because her English is good so I can depend on her when we were discussing the corrections. I trusted her corrections and I was confident that the corrections that we came up with was accurate because I know she is proficient in the language.

The perception towards the partner's proficiency level was especially important in the deliberation over the untreatable errors and in the case of the present study this referred to the CF that the participants received for prepositions. They mostly relied on each other in making corrections since prepositions are idiosyncratic as discussed in the earlier sections of this chapter. When they viewed that their partner's proficiency level was high they would feel more confident with the corrections especially when they initially believed that the forms they used was correct.

I really thought that when I used this, (pointing to the preposition error in her Writing Task 1 script) it was correct. Why is this wrong? But we discussed and my partner helped me explain, and I was sure the correction was accurate because she (referring to her partner) is good in English. So, I used that again in the next writing, and here (pointing to the preposition used in her Writing Task 2 script) "at 86%", correct. I used "with" before and I thought that was ok, nothing wrong, but now when I changed and used "at" ... I got it correct.

With reference to the above interview abstracts, it can be concluded that the perception towards the partner's proficiency level have great influence on the efficacy of the CF and the pair talk. In order for the uptake and retention to take place, learners' perception towards their partners should be positive thus

confidence level can be enhanced. On the contrary, if they did not view their partners' proficiency level positively, their confidence level may be reduced.

When we discussed we were always not sure if the corrections were accurate. Both of us, I think we are not good in English... the same level ... I think.., so when we came up with corrections, we cannot be certain if it was correct or not ... not sure if we should use that or not.

The participant above who felt that both of them are similar in terms of proficiency level was doubtful of the corrections that they came up with during the pair talk. This results in hesitation of whether to continuously use the agreed form in subsequent writing tasks. When they were uncertain, they tend to use the form most familiar to them. This condition may have led to uptake of the CF only but not retention. The participant may use the agreed corrected form in the immediate subsequent written work, but after a period of time, they tend to go back to using the previously used form. The sentences below are examples taken from Participant 19 who expressed uncertainty over the corrections due to fact that she viewed her partner as similarly low in proficiency level as her.

Task 1 sample sentence:

The ownership of fax machine is highest at 2007.

Revised sentence:

The ownership of fax machine is the highest in 2007

Task 2 sample sentence:

Internet Explorer is the highest in 2010.

Delayed posttest sample sentence:

Singapore has the highest broadband subscribers at 2005.

In the first pair talk session they had agreed to change "at" to "in" for the preposition used preceding the year. However, they were uncertain of why their usage was wrong and whether their correction was accurate. They were more inclined to believe that "at" was the correct form and that there was nothing wrong in using that. The excerpt from the pair talk below illustrates this attitude.

UFCF Pair 10 Collaborative Dialogue 1

```
Next...P... preposition... 'at 2007'... why?
1
     FCF PT-13
2
     FCF PT-14
                    'at 2007'... that is ok... I think... why is
3
                    this wrong... I also used 'at year'
4
     FCF PT-13
                    Maybe we just change to 'in 2007'
                    Ok... 'in 2007'...but I don't think that is
5
     FCF PT-14
6
                    correct...
7
                    Yes... me too... but here 'at 2007' is
     FCF PT-13
8
                    underlined, meaning this is wrong...we just
9
                    try to use 'in 2007'...ok.
```

The LREs excerpt above shows that both participants were not aware of why the preposition usage was wrong. They just simply tried out another preposition without much certainty (line 5 to 9). The sample sentences taken from Participant 19 show that when they were uncertain, they were inclined to go back using the form that they were used to. Since Participant 19 perceived her partner as having similar proficiency level, she did not view the corrections that they came up with was positively accurate. When this happened, uptake may be possible but retention was not evident. In other words, the confidence level that the participants had towards the corrections was affected by their perception of their partner's proficiency level and this confidence level greatly influenced the uptake and retention of the CF over a period of time.

This issue on peer feedback and the confidence level that ensues has been extensively studied and reported in the second language writing literature. Hyland & Hyland (2006c) cited studies that may have provided reasons why peer feedback may not be facilitative in the process of language learning. Citing the

Zhang (1995) study, Hyland & Hyland pointed out that students' trust lay more on the teacher's feedback compared to their peers mainly due to the level of knowledge that they believed the teacher would have possessed. With this perception, they were more willing to use the teacher's CF in their writing tasks compared to their peers' (Tsui & Ng, 2000). However, as pointed out in the Tsui & Ng study, both the teacher and peer feedback can be complementary in facilitating language learning. In the present study, the pair talk complemented the written CF in a number of ways. One vital role of the pair talk, it ensures that attention is given to the CF that they received on the targeted linguistic forms. By discussing the CF, the learners scaffolded each other, triggering noticing and extensive hypothesis testing which would eventually lead to reflections of their metalinguistic knowledge.

The perception that the learners have towards the partners' language skills is considerably significant in influencing the language learning development. In the case of the present study, this has influenced the efficacy of the pair talk which eventually affects the uptake and retention of the CF in subsequent written work. However, the effect of this perception is highly individual. In the Yoshida (2008a) study, despite the participant's view towards the partner's language skills, intersubjectivity that they failed to established was mainly caused by the participants' preference for a more independent role in deliberating over the corrective feedback. Not being able to understand the partner's comment was one aspect that led to dissatisfaction towards the pair work and the negative attitude towards the partners' dominance during the discussion had also caused the pair work to become less effective. Yoshida emphasized the importance of collective scaffolding in enhancing pair work effectiveness. Even though the higher proficient learner was paired with less

proficient, without being able to establish intersubjectivity and lacking the collective scaffolding during the deliberation over the CF, the effectiveness of such task is compromised and may not contribute much to the learning development especially to the lower proficient learners.

The Storch & Aldosari (2012) study had also emphasized on the significance of collective scaffolding in pair work. One reason to employ pair work was to focus the learners' attention to the L2 use which was theorized to facilitate learning. In the Storch & Aldosari study, the pairs that produced most LREs which was an indication of L2 use, have been identified to be the pairs that are highly collaborative and tend to be more effective in focusing on the language use during the pair work. Learners would be able to produce more LREs when they were paired with similar proficiency level peers than with lower proficient learners because they need to be able to form collaborative or cooperative pair talk. When this condition was achieved, the learners' attention was more focused on the language use leading to effective learning development.

In the present study, as has been described earlier in this section, the learners were given the freedom to choose their own partner to work with. One aspect that had an influence on the CF and pair talk efficacy was the perception the participants had on their partners' language proficiency level. Even though some viewed their partner as highly proficient, unlike in the Yoshida study of which the pair work were described as less effective especially for the less proficient learner because they failed to establish intersubjectivity, the findings in the present study appeared to be more similar to the findings of the Storch & Aldosari study.

The participants in the present study were able to work collaboratively in deliberating the CF leading to extensive production of the LREs despite the

perceptions that they have on their partners' proficiency level. The effectiveness of collaborative work during the pair talk facilitated the uptake and retention of the CF over a period of time. With the condition that they were able to exercise the three Output Hypothesis functions extensively, even though their views towards their partners' language proficiency level may affect their confidence, the attention on the language use attained through the extensive pair talk would enable them to progress in the learning process.

To summarize the findings of the qualitative inquiries, the data from the LREs and interview analyses revealed that among the prevailing factors that influenced the uptake and retention of the CF provided for the three targeted linguistic forms were the extent of the learners' engagement in exercising the three Output Hypothesis functions throughout the treatment sessions. When learners were able to focus on the ungrammatical uses at a substantive level, they seemed to improve more than those who only demonstrated perfunctory noticing. By extensively hypothesizing the corrections during the LREs it has been shown that uptake and retention of the CF were enhanced since the learners' attention was thoroughly focused on the language forms being deliberated. Both noticing and hypothesis testing would eventually lead to metalinguistic reflection, which is assumed to be the stage where internalization of new acquired knowledge into the learners' interlanguage system takes place. In the context of the present study, the learners' reflections subsequent to their response to the CF that they received had facilitated their language learning development in terms of internalizing and retaining the accurate of the targeted linguistic forms in written work over a period of time.

The learners' first language has been identified to be a significant factor that influenced the effectiveness of reflective functions leading to uptake and

retention of the CF. Finally, from the learners' perspectives, the interviews revealed that linguistic features and task-related factors were among the two most notable influences that affect the uptake and retention of the CF on SVA, prepositions and articles in written work. Positive views and attitudes towards the language features focused in the study and the tasks that they were required to complete were the primary keys to attaining uptake and retention of the CF over a period of time.

Chapter Summary

This chapter presented findings from the qualitative inquiries in the attempt to address the fourth research question. In order to identify factors that may have influenced uptake and retention of the CF in written work, the LREs and interviews were analysed and interpreted. Guided by the three Output Hypothesis functions (noticing, hypothesis functions and metalinguistics), findings from the perspectives of individual performance and attributes revealed that the learners' focus on the ungrammatical uses, extensive hypothesizing of corrections and post-response reflections were significant influencing factors in enhancing uptake and retention of the CF on SVA, prepositions and articles. Language features and task-related factors were also identified to be important influencing elements in the learning process in relation to the focused three targeted linguistic forms in the present study. The next chapter concludes the study by presenting descriptions of the summarised results, limitations and implications of the study and also outlining suggestions for further studies.

CHAPTER SIX

CONCLUSION

In light of the findings discussed in the previous chapters, conclusions drawn from the present study will be presented in this chapter. Implications of the study with regards to the theory, methodology and pedagogy will also be described leading to the limitations and suggestions for further studies.

6.1 Findings Summary

Figure 6.1.1 below represents the issues addressed by four research questions of the present study. The quantitative data analysed to address the first question suggest that corrective feedback is indeed effective in facilitating learners improve accuracy on SVA, prepositions and articles over a period of time. There was no difference between focused and unfocused CF in terms of their efficacy to increase accuracy of the targeted linguistic structures. What has been found to be significant from the findings in relation to the CF types was the use of indirect CF in combination with both focused and unfocused CF. Indirect CF provided learners with opportunities to be actively engaged in the correction process since they would have to come up with the corrections themselves based on the feedback that they received. This paired with the collaborative dialogue became the platform for the learners to be extensively attentive towards the whole learning process. With this learning condition, the fourth research question attempted to identify the factors that influence uptake and retention of the three target structures.

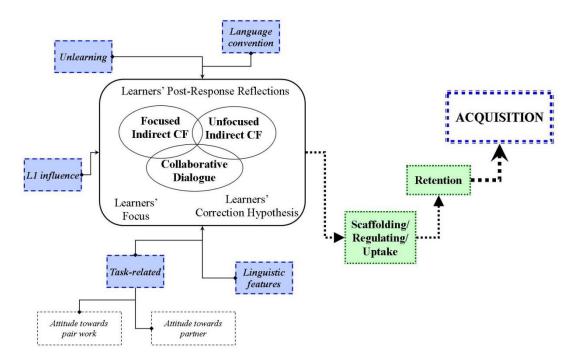


Figure 6.1.1: Findings Summary of the Study

As shown in Figure 6.1.1 above, the core of the whole process was the CF and collaborative dialogue that the learners were engaged with during the treatment session. Guided by Swain's (2005) Output Hypothesis, the CF and collaborative dialogue were found to primarily enhance learners' focus on ungrammatical uses (refer to 'Learners' Focus' in Figure 6.1.1), learners' hypothesizing of the corrections (refer to 'Learners' Correction Hypothesis' in Figure 6.1.1) and their reflections over the response of the CF (refer to 'Learners' Post-Response Reflections' in Figure 6.1.1). As summarised in Figure 6.1.1, findings of the study show that learners' focus on ungrammatical uses was one of the factors that led to greater uptake and retention (refer to the green dotted boxes in Figure 6.1.1). When learners were able to understand why an error has occurred and how to correct it, learning took place and this led to retention over a period of time. Learners should also engage in extensive hypothesis testing to come up with the corrections which eventually facilitate internalization of the forms for long term retention. In relation to post-response reflections, other influencing factors have been

identified through the LREs extracted from the collaborative dialogue and from the interviews analysis. Learners' L1 was identified to be one of the factors that influence the process of learners' reflections Other prevailing factors related to affective aspects include the learners' language belief and conventions as well as their willingness to unlearn their existing interlanguage knowledge to give space for new learning to take place (refer to 'Language convention; L1 influence; Unlearning' in the blue dashed boxes in Figure 6.1.1).

Interviews also revealed that task-related factors and linguistic features may have influenced the learners' uptake and retention (refer to 'Task-related; Linguistic features in Figure 6.1.1). Even though learners perceived SVA as long and complicated, quantitative results indicate that increase in the accuracy scores was significant over a period of time. Articles, which are categorised by Ferris (2006) as 'treatable errors' and prepositions, categorised as 'untreatable errors' were both perceived by the learners in the present study as short and easy to correct. Although they were less certain with the corrections for prepositions, but since they have extensively hypothesized the accurate forms into their intelanguage system. With regards to task-related factors, learners' attitude towards the pair talk and their partner for the collaborative dialogue influenced to certain extent their willingness to thoroughly engage in the task completion (refer to 'Attitude towards pair work; Attitude towards partner' in the black dotted boxes in Figure 6.1.1).

Having viewed the tasks that they were required to complete as important, these learners had shown greater increase in the accuracy scores over a period of time. Interviews led to the conclusion that learners who viewed their partner as being proficient in the second language felt more confident with their corrections. This perception influenced their uptake and retention of the accurate of the CF that they

received for their written work. To sum up, Figure 6.1.1 represents the effectiveness of corrective feedback incorporating the collaborative dialogue in the learning process. Factors that have been identified to have influenced the process of scaffolding, regulating and uptake were presented in relation to the CF and the incorporation of collaborative dialogue. This whole process led to the retention over a period of time and ultimately attaining the objective of learning, which is the acquisition phase.

6.2 Implications of the Study

The implications of the present study emerging from the results discussed in the previous chapters will be discussed in terms of the theoretical, methodological and pedagogical foci.

6.2.1 Theoretical Implications

The implications related to the theoretical understanding of the Output Hypothesis will be described with regard to its interrelatedness, other influencing factors and the role of collaborative dialogue.

6.2.1.1 The Interrelatedness of the Major Functions of the Output Hypothesis

The Output hypothesis (Swain, 2005) emphasized the importance of producing language in written or spoken form in order for learning to take place. Grounded on this hypothesis, the present study incorporated the CF treatment that the learners received with the collaborative dialogue that pushed the learners to deliberate and produce language in the learning process. The three functions (noticing, hypothesis testing and reflective) that the theory highlights were triggered by the language production and collaborative deliberation of the CF have greatly exploited these functions generating a large amount of language-

relate episodes. These episodes were an indication of learners' attention placed towards the CF and linguistic features which would eventually lead to the uptake and retention of the CF on the targeted features.

However, to date, studies grounded on this theory seemed to have been carried out focusing on the functions separately (Hanaoka & Izumi, 2012; Izumi, 2002; Mackey, 2006; Storch & Wigglesworth, 2010; Swain & Lapkin, 2002; Uggen, 2012). Among others, previous studies like Hanaoka and Izumi (2012) and Uggen (2012) investigating the effects of written output specifically on noticing and uptake have also examined these functions as separate entities. Figure 6.2.1.1 below represents how the theory has been depicted in previous literature.

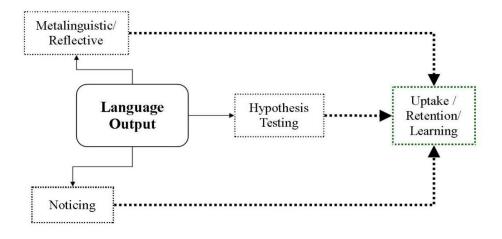


Figure 6.2.1.1: Model of Output Hypothesis in Previous Studies

Figure 6.2.1.1 shows that the three functions of the Output Hypothesis seemed not to be interconnected in the learning process, since they were explored separately in previous studies. However, findings in the present study have demonstrated that with all three functions being operationalised as one entity, the uptake and retention were greater thus leading to the improved accuracy over time. By the consistent performance shown in the statistical results over a period

of 12 weeks, learners have taken up and retained the accurate use of the targeted linguistic features thus it can be assumed that acquisition has taken place. Figure 6.2.1.2 below illustrates the operationalisation of the CF and collaborative dialogue employed in the present study guided by the Output Hypothesis.

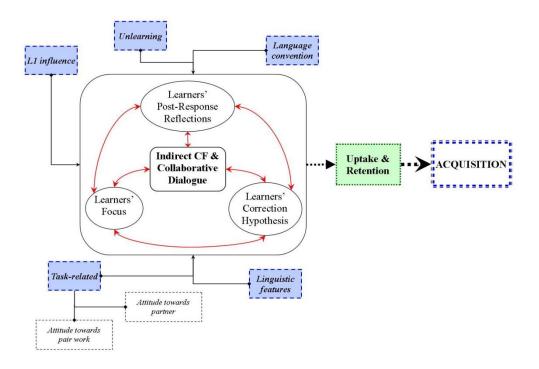


Figure 6.2.1.2: Model of the Findings in the Present Study Guided by the Output Hypothesis

Findings in the present study suggest that the three functions of Output Hypothesis should be treated as one entity for the CF to take greater effects on learners' uptake and retention. As seen in Figure 6.2.1.2 above, the three main factors are interrelated to each other as well as to the CF and collaborative dialogue of which the language output occurs. The noticing function of the Output Hypothesis emphasizes the importance of the learners acknowledging the gap that exists in their interlanguage system. Referring to Figure 6.2.1.2, findings in the present study suggest that the CF that the learners received, paired with the collaborative dialogue directed their focus on the ungrammatical uses in their

written work ('Learners' Focus' in Figure 6.2.1.2). This process helped the learners to realize the correct or incorrect uses of the targeted linguistic forms in their written work.

Moreover, the Output Hypothesis suggests that hypothesis testing which acts as a 'trial run' for the learners to 'say (or write) their intent' (Swain, 2005, p. 476). In the present study, the process of which the learners tried out several corrections before they came to an agreement had greatly enhanced the uptake and retention as suggested through the LREs and interviews analyses (refer to 'Learners' Correction Hypothesis' in Figure 6.2.1.2). The Output Hypothesis also theorized that when learners use the language either in written or spoken form, there is an inclination for reflections on their own as well as others' metalinguistic knowledge. Findings from the LREs and interviews analyses identified this factor as learners' reflections on their responses toward the CF that they received for their written work (refer to 'Learners' Post-Response Reflections' in Figure 6.2.1.2). These identified primary factors influencing uptake and retention of the accurate uses of the three target structures are represented in the diagram as interrelated in the learning process as illustrated in Figure 6.2.1.2.

Furthermore, previous studies have only shown the effect in one direction, which is from the language output towards the hypothesis functions. For instance, the Hanaoka and Izumi (2012) study examined learners' noticing of the problems in their interlanguage through the written output. The present study however, suggests that it is a bi-directional relationship between the output and the factors as illustrated in Figure 6.2.1.2 (indicated by the red arrows). Findings discussed in the previous two chapters proposed the effects of both the output and the factors work both ways. For example, by providing learners with either

focused or unfocused indirect CF, learners' focus on the ungrammatical uses had been triggered and this condition led to the deliberation during the collaborative dialogue. The fact that the learners were provided with indirect CF and that learners noticed the gap in their existing metalinguistic knowledge, a larger amount of LREs can be generated during the collaborative dialogue. This larger amount of generated LREs was an indication of an extensive hypothesis testing. Learners' reflections on their linguistic knowledge was greatly enhanced when they went through these processes and effective reflective function was an indication of the effectiveness of the CF as well as the collaborative dialogue. In short, the findings discussed above show that these primary factors are very much interrelated and it should not be assumed as individual and single-directional influencing factor.

6.2.1.2 The other Contributing Factors Revealed by the Qualitative Findings

With reference to Figure 6.2.1.2, learners in the present study had demonstrated in subsequent to the response towards the CF that they received, the focus given to the ungrammatical uses and the process of hypothesizing the corrections, the learners were inclined to reflect on their existing second language system. This reflection was influenced by a number of factors, namely the learners' first language, language conventions and their willingness to unlearn these conventions and take up newly acquired knowledge through the CF as well as the collaborative dialogue (refer to the factors presented in blue dashed boxes in Figure 6.2.1.2). As discussed in the previous chapters, the CF and collaborative dialogue have been proven to have triggered all these mentioned factors in the learning process which led to greater uptake as shown in the scores in the immediate posttest and retention indicated in the delayed posttest. This constant

performance by the learners suggests learners' acquisition of the targeted features uses in written work has occurred.

In addition, task-related factors and linguistic features also play a crucial role in enhancing the efficacy of the CF and collaborative dialogue in improving language accuracy. As shown in Figure 6.2.1.2, attitude towards the pair work and the partner for the collaborative dialogue were among the prevailing taskrelated factors that influence the uptake and retention process resulting from the CF and collaborative dialogue. Previous studies have also indicated that learners may develop accuracy at different phases according to different linguistic features (e.g.: Bitchener et al, 2005; Ferris, 2006). However, this assumption was not tackled from the learners' viewpoint. Qualitative findings in the present study which considered the learners' perspective from both the LREs occurrences as well as the interviews strongly suggest that learners viewed and approached different linguistic forms differently. Even though they were able to improve accuracy for all three target structures, as proven through the statistical results (see quantitative findings in Chapter 4, pp 137-145), their perception may have influenced the extent of their deliberation over the CF during the collaborative dialogue. Taking this into consideration, it is a significant factor that should not be overlooked in enhancing CF and collaborative dialogue efficacy towards increasing uptake and retention of the accurate uses over a period of time.

6.2.1.3 The Role of Collaborative Dialogue

Finally, findings from the present study demonstrate that written corrective feedback can be more facilitative when incorporated with collaborative dialogue. Corrective feedback research in the context of SLA paradigm should consider focusing inquiries on the role of collaborative dialogue in enhancing corrective

feedback efficacy to improve learners' language accuracy. As Wigglesworth & Storch (2012) asserted the importance of producing language to learn, theorized in the Output Hypothesis (Swain, 2005), collaborative dialogue provides the means for learners to produce language during the learning process. To some extent the factors identified to have contributed to the uptake and retention of the CF have addressed the question posed by Wigglesworth & Storch as to how "collaborative engagement with feedback" contribute to learning.

Besides, since the learning process described through the LREs and interview analyses were linked to the statistical results demonstrating significant increase in the accuracy scores as a result of the treatment completed by the learners prior to the two posttests, to a certain extent, it can be considered that both quantitative and qualitative results have discussed the "cause-effect relationships" issue put forward by Polio (2012). The statistical results are the effects of the efficient relationship between the CF and collaborative dialogues with the three functions of the Output Hypothesis in the learning process which eventually led to the acquisition of the targeted linguistic features in written work over a period of time. To sum up, the qualitative analysis of the LREs occurred during the collaborative dialogue presents insights to a number of features that may have enhanced uptake and retention of the CF. Features such as learners' language conventions, the unlearning process as well as the L1 influence have been identified to have played significant roles in enhancing the effectiveness of the CF in improving language accuracy. Through the interviews, task-related factors and linguistic features have been identified to have also contributed to the learning development resulting from the CF and the collaborative dialogue. Findings derived from the qualitative analysis in the present may have been able to contribute to the theoretical implications from the learners' perspectives in support for the quantitative results indicating efficacy of the focused and unfocused CF to improve language accuracy in written work.

6.2.2 Methodological Implications

With regards to the methodological implication, the present study demonstrates the importance of triangulating the inquiries from both quantitative and qualitative analyses to explore the CF efficacy and its influencing factors. By employing both methodological types in tandem, CF efficacy can be statistically measured and descriptive information on individual performance can be described in relation to the factors identified to have influenced the effectiveness of both CF types in the uptake and retention of the accurate use of SVA, prepositions and articles in written work. Incorporating the pre- and posttests with focused or unfocused CF and the collaborative dialogue that generates the LREs provides both quantitative and qualitative data for analysis. In addition, interview analysis supported and verified the statistical results and the LREs interpretations. To sum up, in the same study, the quantitative data provide answers to questions of CF effectiveness and qualitative findings address the issue of why and how the treatment that the learners received are effective in enhancing the process of language learning and acquisition.

6.2.3 Pedagogical Implications

Two main pedagogical implications identified from the quantitative and qualitative inquiries of the present study are described below.

6.2.3.1 The Incorporation of Written CF and Collaborative Dialogue which Enhances the Learning Process

One of the most significant propositions of the present study in relation to the pedagogical implication is the incorporation of written CF and collaborative dialogue in the learning process. As has been described in the previous chapters, learners' response to the CF, focus on ungrammatical uses, hypothesizing corrections and reflections have been greatly enhanced when learners collaboratively revise their written work based on the indirect FCF and UFCF that they received. These enhanced elements influenced the extensiveness of the collaborative dialogue and increasing the CF efficacy on the uptake and retention of the accurate use of SVA, prepositions and articles. Thus, it is suggested that when learners are provided with written CF, collaborative dialogue should be incorporated to ensure engagement with the feedback would occur and revisions are made accordingly.

Qualitative investigation suggests that learners were more attentive and motivated to respond to the CF that they received because of their engagement in the collaborative dialogue. Findings of the LREs analysis show that when learners' demonstrate their willingness to unlearn existing language conventions and take up the newly scaffolded knowledge acquired through their deliberation over the CF, there was a greater increase in linguistic accuracy in their subsequent written work. Moreover, the LREs and interviews analyses revealed that learners' attitude towards the collaborative dialogue and their partner gave importance to the tasks that they had to complete. Viewing the tasks as the means for learning, at the same time getting feedback from their peers built up their confidence in the knowledge that they have acquired through the process. In addition to the CF that they received from the teacher, the feedback from the deliberation that they received from their peers whom they viewed as proficient during the collaborative dialogue provides means for them to increase their focus

on language use, test their language hypothesis as well as reflect on their choices in making the corrections. These features that are made available by incorporating collaborative dialogue in response to the CF, have been determined to have greatly enhance uptake and retention of the three target structures accurate use in written work over a period of time.

Another implication highlighted here relates to the tasks that learner have to complete during the treatment session. Findings from the interview analysis suggest that the types of written tasks learners need to complete play a role in ensuring consistent focus can be paid in the learning process throughout the treatment duration. Learners have expressed during the interviews that they were expecting the written work to be of various types in order to avoid the tasks to be monotonous and repetitive. They believed that they would be more motivated to complete the tasks given thus influencing their level of attention in their responses towards the CF that they received. Hartshorn et al. (2010) pointed out that corrective feedback that the learners receive should be "meaningful, timely, constant and manageable". These criteria should be considered in selecting the writing tasks that can retain learners' interest and attention towards the assignment that they need to complete.

As the Hartshorn et al. study suggest, aiming for manageability, learners may be asked to write short paragraphs of about 10 minutes regularly on a variety of topics. This shorter writing tasks enable teachers to be more comprehensive with regards to the "quality and completeness" in attending to the written work when providing corrective feedback. It is also more manageable for the learners to constantly focus on the written work and making corrections. This

manageability issue had been voiced out by the participants in the present study, suggesting that the shorter duration may help them to retain their concentration and be consistently attentive in completing the tasks. Thus, the findings from the present study demonstrated the significance of instruction design, which when incorporates with CF, will ensure learners' consistent focus on the learning tasks.

Other CF studies that have been carried out were mostly quantitatively inferred in presenting their findings (e.g., Bitchener & Knoch, 2010; Van Beuningen et al., 2012). Factors from the learners' perspectives that may have influenced those statistical findings were not taken into account in relation to the descriptions of these results. However, from a pedagogical point of view, learners are the focus of the whole learning process and the present study, in addition to the quantitative findings had attempted to explore the issues of CF efficacy from the learners' perspectives. Thus, findings from the qualitative inquiry in support for the encouraging quantitative findings on the CF effectiveness imply that learners' approach in their responses toward the CF that they received corroborates their expectations and viewpoints of the tasks that they were required to complete. In short, these conclusions strongly suggest that incorporating collaborative dialogue for revision of the CF and retaining learners' attention and interests in task completion are of utmost importance to enhance uptake and retention of linguistic accuracy in written work.

6.2.3.3 Focused and Unfocused Corrective Feedback in Language Classes

Quantitative findings imply that the FCF and UFCF can both assist learners to increase language accuracy in written work. Even though both can be employed in the learning process, based on the results gathered from the LREs and interview analyses, it is suggested that the two CF types may be used in different

learning contexts. For writing activities that focus on the explicit grammar knowledge, like constructing sentences with the focus on accuracy of SVA use, FCF may be more appropriate to be employed in this context. However, for writing activities that assess accuracy and fluency comprehensively, which do not only look at the grammar items, but also other writing aspects, like content, cohesion and mechanics, UFCF may be deemed to be more effective. In short, since both FCF and UFCF can be employed interchangeably, the types of writing activity that learners have to complete may influence the choice between these two CF types.

6.3 Limitations and Suggestions for Further Study

This section describes a number of limitations of the present study that should be considered in interpreting the results. Following these limitations, suggestions for further studies are also presented in relation to the provision of corrective feedback for writing instructions.

The first limitation of the study relates to the issue addressed by Truscott (1996) on the longitudinal effect of the CF on learners' writing. Truscott argued that learners tend to lack motivation to use the CF that they seemed to acquire over a period of time, especially once they have moved on to a different semester or having different teachers for their language classes. The 12 weeks' period of the present study was almost equivalent to one semester of an academic calendar. The delayed posttest that was carried out after six weeks' interval may not have been able to address Truscott's argument on this matter. It was not feasible to carry out posttests beyond the period of a semester since the participants in the present study were placed in their class sections based on the open registration, which combined students from various faculties for English language classes. In the following semester these learners would not be taking

any language courses, thus tracking down all 90 participants from various faculties and ensuring all of them to sit for the posttests may not be feasible if not impossible. Thus, it is suggested that further study to address these shortcomings to be carried out with different sets of participants for example, learners who still have a few semesters of English language courses to complete. With the cooperation from different language teachers teaching the participants in the following semester, posttest of a longer interval period may possibly be conducted with participants across semesters. It is also insightful to carry out these studies taking into account learners' motivation with regards to using the CF over a period of time as well as the issue of pseudolearning highlighted by Truscott as one of the theoretical arguments to support his contention against the effectiveness of grammar corrections.

Secondly, the present study had limited number of intact classes selected for group comparisons. There was one class for each condition group and although these groups were randomly assigned, the limited number of intact classes involved for the treatment sessions. It could be ideally improved if one or two more classes were included for each condition group, which can lead to increased reliability of the data gathered and the interpretations of the findings. Future studies may consider this methodological issue by increasing the number of intact classes with corresponding participants to be assigned for each treatment condition in order to produce results which are more robust and reliable.

The third limitation observed from the study was with regards to the time spent in revisions during the pair talk. Since the comparison was made between the focused CF and unfocused CF, naturally, the participants who received the comprehensive CF tend to spend on average a longer time for deliberations compared to participants who only received CF on three target structures. Even though, the average amount of LREs generated for both groups was similar for the three target structures (refer to Table

5.1.1.2 in Chapter 5, p. 170), the time spent on overall deliberations during the collaborative may have some influence on the results. This procedural matter was not addressed in the present study, thus future studies are suggested to take this matter into consideration when comparison is made between different CF types, especially when other approaches were employed together with the written CF such as collaborative dialogues.

Another limitation of the study relates to the writing types that the participants were required to complete. Through the data collection period, the participants were required to write five graph descriptions. Interview with the participants revealed that some of them felt that writing the similar tasks can be monotonous and repetitive. Even though it was not the scope of the study, this kind of perception and attitude may have influenced the motivation to complete the task, which eventually affects the overall results. It is suggested that further study to be carried out considering using different types of writing for the participants to complete while ensuring the reliability and validity of the tasks as the instruments employed. These different writing types may be closer to the natural classroom practice since most of the time, throughout a semester students usually would be required to complete different writing tasks. It is instructive to have studies that explore the CF issue from this perspective.

The depth of the qualitative inquiry is another limitation of the present study. The fourth research question that aimed to identify factors influencing uptake and retention of the CF over a period of time could have been addressed by a more focused and in-depth analysis of the LREs as well as the interviews. Thus, further study is highly recommended to utilize such data to produce a more meaningful and more profound findings with regards to the learners' viewpoint in the process of uptake and retention of the CF.

In the pedagogical implications, collaborative dialogue is encouraged alongside corrective feedback. Relevant issues like motivation, linguistic and task-related factors are highlighted as to have to some extent, influence CF efficacy. However, there may be practical limitations in terms of implementation in actual classroom context. Among others, implementation may be impeded by class size, time constraint, grouping issues and learners' proficiency level. Further studies are thus suggested to be conducted to explore these issues in relation to CF efficacy.

Finally, it was also observed that the present study is limited in terms of the comparison between the condition groups. The present study incorporated collaborative dialogue together with the written CF and the encouraging findings suggest that learners were able to demonstrate greater uptake and retention over a period of time. However, it was not in the scope of the present study to verify the influence of the collaborative dialogue in a sense that comparison was not made between learners who received written CF only and those who received written CF and deliberated the CF during the pair talk. It may be possible that learners would be able to improve accuracy regardless of whether they carried out the collaborative dialogue or not. It may also be possible that the learners would not be able to improve accuracy without the deliberation of the CF during the collaborative dialogue. Therefore, it would be insightful to carry out future studies that examine the performance of the learners in increasing language accuracy with or without the assistance of collaborative dialogue in dealing with the written corrective feedback as well as to ascertain the extent of the roles collaborative dialogue plays in the learning process.

6.4 Conclusion

In order to address the theoretical and practical debates over CF efficacy in facilitating second language learners' development (Bitchener, 2008; 2009; 2012; Ferris, 1999;

2004; Truscott, 1996; 1999; 2004; 2007; 2010), the present study sought to investigate the extent of the effectiveness of two CF types (focused and unfocused indirect CF) in increasing linguistic accuracy in the writings of ESL learners over a period of time from both quantitative and qualitative paradigms. Working on the encouraging findings on the use of focused CF to increase linguistic accuracy (Bitchener & Knoch, 2008a; 2010, Sheen, 2007) and the conventional practice of comprehensive CF (Ellis, 2009; Lee, 2004; 2009; 2013), the present study compared the two CF types in increasing accuracy of subject-verb agreement, prepositions and articles uses in written work, and through qualitative inquiries, factors that may have influenced the uptake and retention of the CF were identified.

Statistical findings of the present study seem to support the results of the two previous studies that compared the focused and unfocused CF (Ellis et al., 2008; Sheen et al., 2009) in suggesting that both CF types were equally effective in helping learners improve accuracy over a period of time. However, unlike the previous two studies that showed more inclination toward the effectiveness of focused CF, the present study shows a pattern that indicates that unfocused CF was slightly more effective than the focused CF in increasing accuracy of SVA, prepositions and articles over a period of 12 weeks. Even though the difference was not statistically significant, the qualitative inquiries offered some explanations on why this slight difference may have occurred. Observing this condition at individual level, the LREs and interviews analyses suggest that learners' attention was one of the most important factors that can influence uptake and retention of the CF. Learners who received unfocused CF tend to be more attentive towards the CF and generally generated more LREs compared to those receiving focused CF. The fact that more LREs were generated led to more engagement in the three Output Hypothesis functions (noticing, hypothesis testing, metalinguistics) which were identified to be among the influencing factors that can trigger greater uptake and retention of the CF. In addition, affective factors such as the learners' language conventions, attitude towards the task and their partner were also noted from both CF groups to have been the factors that affect the learners' learning process in the context of the present study.

The qualitative inquiry in the present study has provided some insights to the questions of CF efficacy that quantitative findings alone may not be able to address. Most importantly, by incorporating the collaborative dialogue to deliberate over the CF, features that have influenced uptake and retention of language accuracy were identified in relation to the LREs analysis. Fundamentally, through the features that have been discussed at length in Chapter 5 as well as the implications presented in the earlier sections of this chapter, it can be concluded that qualitative investigation has been able to help determine the sort of discussion that allows learners to improve accuracy in their written work. In addition, qualitative analyses of the LREs and interviews have laid out some suggestions on the types of task that would allow the learners to reflect on the CF and their language use in written work.

The present study has yielded promising findings with regards to the effectiveness of both focused and unfocused CF as well as the roles of collaborative dialogue in enhancing CF efficacy, thus, teachers may consider incorporating this approach in language classes to help learners improve linguistic accuracy in written work. Nevertheless, caution needs to be taken in interpreting and generalizing the results of the study in different contexts with different sets of participants due to certain limitations discussed earlier. Futures studies should be carried out with great care as to the matter of the operationalising CF treatment, the design and the procedures of the study as well as in conceptualizing the theoretical framework that may be able to further verify the efficacy of the CF examined and to extend the scope of linguistic features in different learning contexts.

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APPENDIX A

Sample of CF Marking for UFCF Group

The graph shows the ownership of three communication devi-	ra -
SAV	ce ?.
which is mobile phones personal computers and fax machines by house	hold
m	
in Japan from 2004 to 2008. In general, mobile phones hit the higher	
P WC	
percentage among the five years from 2004 to 2008 tother than per	sona
~~	
computers and for machines. This device become more popular in 20	
which is P 97%. The percentage shows that almost all the households	
in Japan are using mobile phones because it is more paster, easy to	>
handle and we can bring it everywhere we go. much more, the usage	
SVA are very wide and people will use it at any time. The second di	e vice
7? SVA	
with the second higher percentage than mobile phones is person	91
computers which is around 78% to 89%. This device have a	
many function and was widely used also but the difficulties is	٧A
its not compatible for a users to be with it at any time like m	,
phones More over, nowadays the mobile phones also can be used	91
a personal computers since it has so many improvement either i	'n
application and usage. The least popular among the households in	,
Japan are fox machine which/only about 49% to 58%. This	ìs
because usually this device will be only used in the office to	
their bussiness. From my opinion, todays development, was very	
since we can have so many new device with many application. As	A
users, we should used it wisely and effectively so it can never be	
misused.	
ENTAL AND THE WAY THE T	

Sample of CF Marking for FCF Group

The graph shows the ownership of three devices which is mobile thou, personal computers and fax machine households in Tapan from 2004 to 2008. The highest user for mobile phones was in 2009 which is 197 percent compare the lowest in 2005 which is 197 percent. This is negle mobile phones has low price in year of 2008 and approbable for them to have it have nowadays but maybe in year of 2005 people cant affers to have that. Same with personal computers too. the hichest user was in 2009 and the lowest was in 2004. Personal computers is important as mobile phones. Especially for students let of learning programme can be some by using the computers howardays The last is fax machine. Not so many people able to have their own Fax machine. The highest useus was in 2007 which is only \$58 percent. It maybe because the price of it was so expensive compare to athers and people did not use the fax machine novadays.

UFCF Symbols Adapted from Azar's (1992) Guide for Correcting Writing Errors

APPENDIX B

Code	Problem	Example
SP	SINGULAR- PLURAL	SP There are three most popular <u>brand.</u>
WF	WORD FORM	I saw a <u>beauty</u> picture.
WC	WORD CHOICE	They want to improve to others that they can do it.
SVA	SUBJECT-VERB AGREEMENT	SVA The graph show the use of website in 2008.
P	PREPOSITIONS	P Students are interested <u>at</u> other courses.
A	ARTICLES	A They are satisfied with the services provided by clinic.
wo	WORD ORDER	WO I saw five times that movie
M/S	MECHANIC/ SPELLING	M/S They attended pronounciation class
M/C	MECHANIC/ CAPITALISATION	M/C Most users prefer <u>linux</u> as the operating system.
M/P	MECHANIC/ PUNCTUATION	M/P According to the graph the most popular search engine is Google.
۸	WORD MISSING	Japan is a <u>developed and</u> is always ahead of other countries.
/-	OMIT A WORD	The students repeat <u>again</u> the task.
??	MEANING NOT CLEAR	?? He borrowed some smoke.

FCF Symbols Adapted from Azar's (1992) Guide for Correcting Writing Errors

Code	Problem	Example
SVA	SUBJECT-VERB AGREEMENT	SVA The graph show the use of website in 2008.
P	PREPOSITIONS	The data suggest that students are interested at other courses.
A	ARTICLES	The customers are satisfied with the services provided by clinic.

APPENDIX C

Faculty of Languages and Linguistics

University Malaya

Differential Effects of Corrective Feedback on the ESL Learners' Accuracy of Linguistic Forms

Information Sheet

I am a postgraduate candidate from the Faculty of Languages and Linguistics, Universiti Malaya. I am investigating corrective feedback efficacy in increasing accuracy of linguistic features in writing by ESL learners. I am inviting you to take part in my study. You will be asked to write 5 descriptions of graphs on selected themes. Your writing will serve as the data for this research. You will also be asked to attend 2 sessions of a 30-minute pair-talk to discuss feedback given for the written work.

Your participation and performance for this research will not influence in any way the results of UHL 4032 course that you are doing this semester.

Your personal identity will be protected and pseudonyms will be used in presenting the findings. Only the researchers (my supervisor and I) will have access to the data. It is expected that the research findings will be reported in the PhD dissertation, scholarly publications and conferences.

Your participation is totally voluntary and hence, you may withdraw from participating in this study now or at any time during the study should you feel the need to do so.

If you have any question, please ask me now or kindly contact me at the contact details below.

Thank you.

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Differential Effects of Corrective Feedback on the ESL Learners' Accuracy of Linguistic Forms

Consent Form

Please tick the appropriate box to show that you agree to take part in this study:

I have read and clearly understood the information found in the Information Sheet. I am also aware of the time needed from me to participate in this study. I agree to my writings to be used as the data as long as my identity is kept secured to the researchers. Besides, I understand that my participation will in no way affect the grade or classroom assessment for my UHL 4032 Effective Reading course.

I understand that the research findings will be reported in the PhD Dissertation, scholarly publications and conferences.

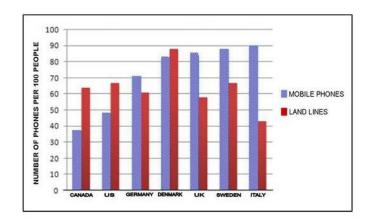
I have been provided with sufficient descriptions about this project and I am satisfied with the explanations. I agree to take part in the study.

Yes		No		
Signat	ure:			
Name	of partic	cipant:		,
Date:				
I would	d like to r	eceive a	brief s	summary of the findings after the research has been completed
Please	send it to	o the fol	lowing	address:

APPENDIX D

The graph shows the number of mobile phones and landlines per 100 people in selected countries. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You have 30 minutes to complete this task.





SAMPLE OF DESCRIPTION

The graph shows the number of mobile phones and landlines per 100 users, for selected countries. Overall, most of the countries included in the graph have more mobile phones subscribers than landlines. Most European countries have high mobile phone use. The biggest users of mobile phones are the Italians, with 88 cell phones per 100 people. For example, Italy has twice as many mobile phones as landlines, with 88 mobiles per hundred people compared to 45 for landlines. Mobile phone use is low in Canada, with fewer than 40 phones per 100 people. Denmark is also unusual because it has slightly more landlines than mobile phones. However, in some countries, the number of landlines is higher than the number of mobile phones. One example is the USA, where the number of mobiles, at 50 per 100 people, is much lower than the number of landlines, at almost 70 per hundred. A similar pattern can be seen in Canada. The highest number of landlines in the graph is in Denmark, with about 90 per 100 people. In contrast, the lowest figures for fixed lines are in Italy and the UK. conclusion, it seems that mobile phone use is higher in Europe than in North America.

(205 words)

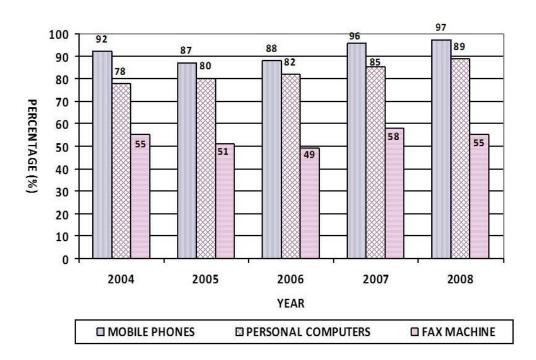
Taken from http://www.ukgate.com/blog/post/IELTS-Essay-Task-1-Mobile-phones-and-landlines

APPENDIX E

Writing Task 1

The graph shows the ownership of three communication devices by households in Japan from 2004 to 2008. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You may ask questions about the graph if you need any clarifications. You should write at least 200 words. You have 30 minutes to complete this task.

OWNERSHIP OF COMMUNICATION DEVICES BY HOUSEHOLDS IN JAPAN (2004-2008)

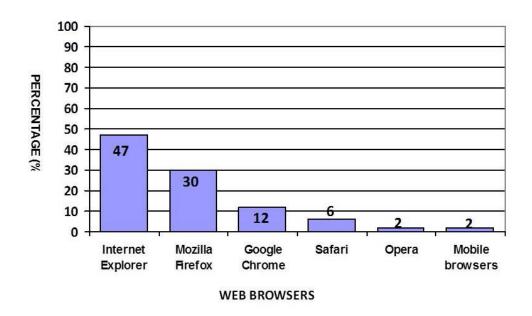


Adapted from http://www.slideshare.net/yaromir/japan-mobile-sns-study-2010

Writing Task 2

The graph shows the percentage of usage share of six web browsers worldwide in October 2010. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You may ask questions about the graph if you need any clarifications. You have 30 minutes to complete this task.

THE USAGE SHARE OF WEB BROWSERS WORLDWIDE IN OCTOBER 2010



Adapted from http://en.wikipedia.org/wiki/Usage share of web browsers

APPENDIX F

Interview Questions Guided by Three Categorizations of Data

Category 1: Strategies/Linguistic Features/Responses to CF

Responses to CF: Can you explain why you can understand/ do not understand the written feedback given on your written work?

Retention: Which feedback from the first written work do you think that you have used/have not used in your subsequent writing task? Why?

Linguistic form: Can you tell me why it is easier/ more difficult to understand and remember the feedback on the different linguistic forms from the written feedback given compared to the pair talk session?

Linguistic form/ uptake: From a number of feedback given to you which linguistic form do you find the easiest to understand and to correct? Why?

Responses to CF: Describe the most/the least helpful feedback you received during the sessions.

Responses to CF: What do you think about the amount of CF provided to your work? Do you need more/ less? Can you explain?

Time span/ Retention: Why do you think after 6 weeks you can still remember/ cannot remember the feedback given for your written work earlier?

Category 2: Extent of LREs/ Number of Tasks

Number of task/ retention: Can you explain why the number of writing task given to you helps/ does not help you in improving your linguistic accuracy in written work?

Number of task/ retention: What do you think about the number of tasks that you need to complete? Do you need more/ less? Can you explain?

Extent of engagement/uptake: Why do you think the length/extent of discussion with your pair has any influence in understanding or remember the written feedback given?

Category 3: Affective Factors

Attitude: What do you think of the written feedback given to your work?

Attitude: What do you think of the pair talk?

Attitude: What do you think of your partner?

Attitude/ Goal: What do you think of using accurate grammar in written work?

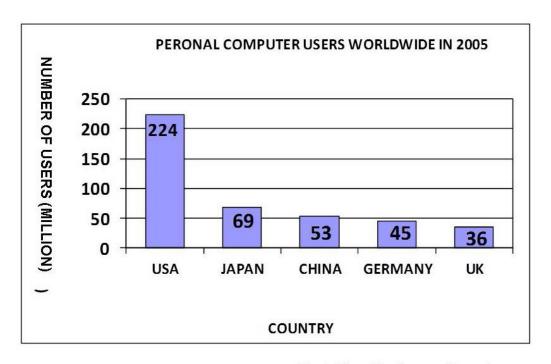
Attitude: How would you feel if you had received more corrections in your written work? How would you respond? Or

How would you feel if you had received lesser corrections in your written work? How would you respond?

APPENDIX G

Pretest

The graph shows the number of personal computer users worldwide in 2005. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You may ask questions about the graph if you need any clarifications. You have 30 minutes to complete this task.

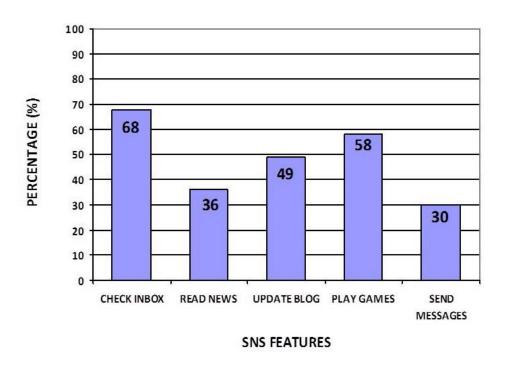


Adapted from http://www.nationmaster.com

Immediate Posttest

The graph shows the features of social network services (SNS) used on mobile phones in Japan. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You may ask questions about the graph if you need any clarifications. You have 30 minutes to complete this task.

SOCIAL NETWORK SERVICES (SNS) FEATURES USED ON MOBILE PHONES IN JAPAN (2007)

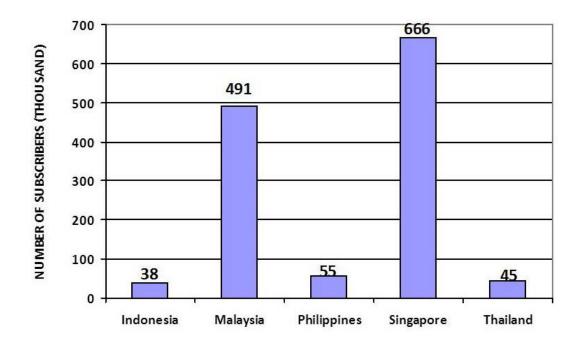


Adapted from http://www.slideshare.net/yaromir/japan-mobile-sns-study-2010

Delayed Posttest

The graph shows the number of broadband subscribers in 5 ASEAN countries in 2005. Describe the information by selecting and reporting the main features. Your description should include an introductory sentence, discussion of the main features and a concluding remark. You should write at least 200 words. You may ask questions about the graph if you need any clarifications. You have 30 minutes to complete this task.

BROADBAND SUBSCRIBER IN 5 ASEAN COUNTRIES (2005)



Adapted from http://www.nationmaster.com/graph/int_bro_sub-internet-broadband-

APPENDIX H

The Storch & Wigglesworth (2010) Guidelines for LREs Analysis

A Language Related Episode (LRE) is any segment in the data where there is an explicit focus on language.

Note:

- This focus can be in response to the feedback the participants received but can also be unsolicited.
- LREs can vary in length. They can be short (e.g., consisting of a learner simply reading out aloud a reformulated word or phrase with no response from the other member of the pair) or a long segment (e.g., where both learners discuss grammatical or lexical choices).
- LREs can be interrupted. For example, learners may deliberate over the use of articles and decide to omit it. They may then return to this decision at a later stage in their pair talk and decide to reverse their decision, and insert the article. Since both segments deal with the same 'error' they are counted as one episode.

CODING LRES

- 1. Identify in the data segments where learners seem to be focusing explicitly on language choice.
- 2. Distinguish LREs in terms of focus: form-focus (F-LREs), lexis-focus (LLREs), mechanics-focus (M-LREs).
 - *F-LRE* : focus on morphology or syntax (e.g., verb tenses, word forms, use of articles, prepositions, word order)
 - *L-LRE* : deliberations on word meaning, searching for a word, suggesting alternative words/phrase
 - *M-LRE* : deliberations on issues such as spelling or punctuations (or pronunciation)
- 3. Determine whether the LRE deals with language items that were targeted by the feedback given.
- 4. Determine whether the LRE is resolved correctly ($\sqrt{\ }$), incorrectly (X), or left unresolved (?).
 - Resolved correctly ($\sqrt{\ }$): The resolution reached is in line with the intended feedback (or it could be an acceptable alternative in this instance).
 - *Resolved incorrectly* (X): The resolution reached is not in line with the intended feedback (or is an unacceptable alternative in this instance).
 - *Unresolved* (?): The learners seem unable to determine how to respond to the feedback (in the case of editing) or seem reluctant to accept the reformulation but cannot agree on an alternative.
- 5. LREs that deal with language items targeted by the feedback are further analyzed for the nature of engagement.
 - LREs which show extensive engagement (EE): episodes where learners offer suggestions and counter suggestions, explanations, or any comments showing evidence of meta-awareness of the feedback received (e.g., We don't have to use being). It also includes episodes where the correction is repeated by learners a number of times.
 - LREs which show limited or no engagement (LE): episodes where one member of the pair just reads the feedback and the other simply acknowledged or repeats it once, without making any other additional comments

Adapted Guidelines for LREs Analysis

A Language Related Episode (LRE) is the discussion in the pair talk session where participants focus explicitly on language features as provided in the written CF.

- This focus is in response to the written feedback provided for the written work.
- LREs can vary in length. They can be short (e.g., consisting of a learner simply reading out aloud a feedback given with no or very limited response from the other member of the pair) or a long segment (e.g., where both learners deliberated over the corrections at length).
- LREs can be interrupted. For example, learners may deliberate over the use of SVA and decide to omit certain parts of the phrase. They may then return to this decision at a later stage in their pair talk and decide to reverse their decision, and insert the grammatical item back into the phrase. Since both segments deal with the same 'error' they are counted as one episode.

CODING LRES

- 1. Identify in the data segments where learners seem to be focusing explicitly on language features as pointed out by the CF that they received.
- 2. Distinguish LREs in terms of focus: SVA-focus (SVA-LREs), Preposition-focus (P-LREs), Articles-focus (A-LREs).
- 3. Determine whether the LRE is resolved correctly, incorrectly, or left unresolved.
 - Resolved correctly: The resolution reached is in line with the intended feedback (or it could be an acceptable alternative appropriate to the context of the written work).
 - *Resolved incorrectly*: The resolution reached is not in line with the intended feedback (or is an unacceptable alternative or inappropriate to the context of the written work).
 - *Unresolved*: The learners seem unable to determine how to respond to the feedback provided.
- 4. LREs that deal with language items targeted by the feedback are further analysed for the nature of engagement. This is guided by the Output Hypothesis.
 - LREs that show the level of noticing, either substantive or perfunctory. Substantive noticing is indicated by the learners providing reasons for errors and corrections that they choose to make. Perfunctory noticing is when learners do not offer any explanation on the errors or the correction.
 - LREs that show the extent of hypothesis testing in the deliberation over the feedback and corrections. This is demonstrated in the LREs that show:

- Extensive engagement that is described as episodes where learners offer suggestions and counter suggestions, explanations, or any comments showing evidence of meta-awareness of the feedback received. It also includes episodes where the learners try out a number of corrections for the linguistic form that is being deliberated (trial run).
- Limited deliberation, for example, the episodes where one member of the pair just reads the feedback and the other simply acknowledges or repeats it once, without making any other additional comments. It includes episodes where the correction is provided by one member of the pair and the other member just accepts without any deliberations.
- LREs that show learners demonstrating reflections on the metalinguistic knowledge. This includes episodes where learners notice the use of the targeted linguistic forms is inaccurate as highlighted by the CF and hypothesized the corrections by referring to their own as well as the partner's existing linguistic knowledge.

(Adapted from Storch & Wigglesworth, 2010, pp. 333-334)