

**THE EFFECTS OF DIRECT AND INDIRECT WRITTEN
CORRECTIVE FEEDBACK ON ESL STUDENTS' USE
OF PAST TENSES**

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OF PAST TENSES**

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THE EFFECTS OF DIRECT AND INDIRECT WRITTEN CORRECTIVE FEEDBACK ON ESL STUDENTS' USE OF PAST TENSES

ABSTRACT

Written corrective feedback (WCF) helps students to distinguish their errors in written work before producing the correct form. In school, WCF is widely used among writing teachers in attempt to improve students' language accuracy in their written tasks. Experts like Sheen (2007) and Bitchener (2008) believe that WCF plays a significant role in language accuracy development because it is effective and helpful in the development and improvement of students' accuracy in second language writing. Corrective feedback can be operationalized in terms of direct and indirect. However, in many cases of empirical studies (Ferris, 2003; Chandler, 2006; Bitchener & Knoch, 2009), results were inconclusive because of variation in how the effectiveness of WCF was measured. Hence, the purpose of this study is to investigate the effects of direct and indirect WCF on ESL students' use of past tenses over a period of 12 weeks. A total of 60 ESL students were put into two treatment groups. Base on a mixed method approach, the study compared the effectiveness of direct WCF and indirect WCF on the accurate use of past tenses measured using pre-post tests, as well as interviewing respondents in order to detect the factors that influence the performance of the students. Findings revealed that the direct group performed slightly better than the indirect group in the post-tests. It was also found that both groups performed statistically significant over time, but there was no significant difference in the learners' use of past tenses between both groups. The qualitative findings revealed that factors related to learner attitudes, learner beliefs and the types of scaffolding that took place influence the performance of the students. Both the quantitative and qualitative findings indicate that different types of corrective feedback and the pre-mentioned factors affect students' achievement in language learning.

**KESAN MAKLUM BALAS PEMBETULAN BERTULIS SECARA LANGSUNG
DAN TIDAK LANGSUNG DALAM PENGGUNAAN KATA KERJA *PAST*
TENSES DI KALANGAN PARA PELAJAR YANG MEMPELAJARI BAHASA
INGGERIS SEBAGAI BAHASA KEDUA**

ABSTRAK

Maklum balas pembedahan bertulis membantu pelajar membezakan kesilapan mereka dalam kerja bertulis sebelum menghasilkan kerja penulisan yang betul. Di sekolah, Maklum balas pembedahan bertulis digunakan secara meluas di kalangan guru penulisan dalam usaha untuk meningkatkan ketepatan bahasa pelajar dalam tugas bertulis mereka. Pakar-pakar seperti Sheen (2007) dan Bitchener (2008) percaya bahawa WCF memainkan peranan penting dalam pembangunan ketepatan bahasa kerana ia berkesan dan bermanfaat dalam pembangunan dan peningkatan ketepatan pelajar dalam penulisan Bahasa Inggeris sebagai bahasa kedua. Maklum balas pembedahan bertulis boleh dijalankan dari segi secara langsung dan tidak langsung. Walau bagaimanapun, dalam kebanyakan kes kajian empirikal (Ferris, 2003; Chandler, 2006; Bitchener & Knoch, 2009), keputusan tidak dapat disimpulkan disebabkan variasi dalam mengukur keberkesanan maklum balas pembedahan bertulis ini. Oleh itu, tujuan kajian ini adalah untuk mengkaji kesan maklum balas pembedahan bertulis secara langsung dan tidak langsung ke atas penggunaan para pelajar yang mempelajari Bahasa Inggeris sebagai bahasa kedua selama 12 minggu. Sebanyak 60 pelajar dimasukkan ke dalam dua kumpulan rawatan. Berdasarkan pendekatan kaedah campuran, kajian ini membandingkan keberkesanan maklum balas pembedahan bertulis secara langsung dan tidak langsung dalam penggunaan kata kerja *past tenses* yang diukur dari pra-ujian, pasca-ujian segera dan pasca-ujian tertangguh, serta meninjau responden untuk mengesan faktor-faktor yang mempengaruhi prestasi pelajar. Penemuan kuantitatif menunjukkan bahawa pencapaian kumpulan yang menerima pembedahan bertulis secara langsung adalah sedikit lebih baik daripada pencapaian kumpulan yang menerima pembedahan bertulis secara tidak langsung dalam kedua-dua pasca-ujian selepas. Didapati juga bahawa pencapaian kedua-dua kumpulan mencapai statistik yang signifikan dari masa ke masa, tetapi tetapi tidak ada perbezaan yang signifikan dalam penggunaan kata kerja *past tenses* di antara kedua-dua kumpulan. Disimpulkan bahawa

pembetulan bertulis secara langsung memberi kesan yang sama seperti pembetulan bertulis secara tidak langsung dalam meningkatkan ketepatan penggunaan kata kerja *past tenses*. Penemuan kualitatif mendedahkan faktor-faktor seperti sikap para pelajar, kepercayaan pelajar terhadap pembetulan bertulis dan jenis-jenis sistem sokongan yang diperoleh di sekeliling mereka mempengaruhi prestasi para pelajar dalam menguasai penggunaan kata kerja *past tenses*. Kedua-dua penemuan kuantitatif dan kualitatif menunjukkan bahawa kedua-dua jenis maklum balas pembetulan bertulis dan faktor-faktor yang telah dikenal sangat mempengaruhi pencapaian pelajar dalam pembelajaran Bahasa Inggeris sebagai bahasa kedua.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

English is commonly used for international communication and telecommunications (i.e. the internet) in Malaysia. The usage of the language itself is significant as Malaysia has been using a bilingual education system for the past fifteen years (Darmi & Albion, 2013). Even though Bahasa Malaysia is the official language in Malaysia, the government has decided to adopt English language as an additional language to be used in the education system. Since English is referred as a strong second language (L2) in Malaysia (Baskaran, 1985, as cited in Jantmary Thirusanku & Melor Md Yunus, 2014), the language has been made a compulsory subject at every level of education. Jeon-Ellis, Debski and Wigglesworth (2005) define the L2 classroom as “a social context to which learners bring themselves and their past experiences in which they establish certain relationships and attempt to participate and engage in tasks in ways that best fit their social needs”. In other words, it is a crucial part of the process of L2 learning when activities described are related to L2 learners’ peers as social beings.

1.1 Background of the Study

According to the Malaysian Employers Federation (MEF) executive director, Datuk Shamsuddin Bardan, there are currently about 200,000 unemployed graduates in the country and one of the main reasons why they are out of work is due to their lack of English proficiency (Yuen Meikeng, 2015). Furthermore, the poor command of English is evidently clear among young doctors who fail to master English as they use “rojak English” or broken English during consultations with patients. Yuen Meikeng (2015) also asserts that due to the poor command of the language, some 1,000 medical graduates are forced to abandon their dream of becoming doctors.

The problem is not isolated to medical graduates, but it is also prevalent among other graduates. The declining standard of English makes it impossible to hire fresh graduates who can converse efficiently in English. Datuk Shamsuddin Bardan, the executive director of MEF believes that “these Generation Y graduates have poor grasp of English because they are technology-savvy” (Yuen Meikeng, 2015). As a result of the constant use on their gadgets to message one another using short forms, acronyms and slang words, technology has taken its toll on their use of English; hence the use of “rojak English” or broken English takes over the language usage. The next subsection discusses on the “rojak English” in the local context.

1.1.1 “Rojak English” or Broken English

“Rojak English” or broken English is widely used among young adolescents and working adults in Malaysia. In the Malaysian ESL classroom context, “rojak English” or broken English is the result of the inclusion of language items from students’ native languages into the second language sentence structures. Since the use of “rojak English” or broken English in ESL classroom is considered as adulterated language use, it is often treated as an unwanted language behaviour.

The use of “rojak English” or broken English is not restricted to a specific sector, but it is rampant in many industries. It has been the lingua franca of many sectors and industries for years. Malaysian Medical Association (MMA) Malacca chapter president Prof Dr. M. Nachiappan said, “It is imperative that there must be an urgency to improve the grasp of the language at the primary level” (R.S.N Murali, 2015). Thus, when students’ performance in English declines as early as at primary level, their performance with poor knowledge of the language will continue deteriorating as they move to secondary level. One of the steps taken by the Malaysian government is to make

English as a compulsory subject in the education system. The following section elucidates the issue.

1.1.2 A Compulsory Subject in School

In the context of Malaysia, English is a compulsory subject taught as an L2 in both primary and secondary schools. English is also a prerequisite when individuals pursue their tertiary education. Some courses (business, tourism, and law) at the university use English as a main medium of instruction. According to the Malaysian Examination Council, 2006 (as cited in Wendy Hiew, 2012), local undergraduates are required to register a stipulated number of credit hour of English courses based on the result of their Malaysian University English Test (MUET), which is an English proficiency assessment course. Taking this examination is a compulsory requirement for students who plan to pursue tertiary education at Malaysian universities. Thus, it is evident that mastery of English language is deemed important in the education system in Malaysia.

In spite of the importance of mastering the language, English is considered as one difficult subject by many students, especially for those who come from rural schools despite learning it from the beginning of schooling. Albeit they spend at least between 11 to 13 years learning English, it is not widely used daily. “A portion of students fail to master English upon completing secondary school” (Wendy Hiew, 2012) because of distinctive life background and different levels of English proficiency. Even though all four skills are emphasized and taught extensively, Malaysian students still lack good command of English, especially in writing skills. It seems that their proficiency in writing appears to be declining and they tend to commit errors in many aspects of writing in English language. The common errors in writing committed by ESL students in Malaysia will be discussed next.

1.1.3 Common Errors in Malaysian ESL Writing

One of the aspects of writing which are likely for students to commit errors is sentence construction. Hijjo (2013) conducted a study that investigates a morphosyntactic analysis on Malaysian secondary school students' essay writing. One of the findings suggested that Malaysian students cannot write simple sentences because of the difference in terms of word order and sentence structure between Malay language and English in term of morphology and syntax. Moreover, findings from another study conducted by Ghabool, Mariadass and Kashef (2012) revealed that Malaysian students face writing difficulties, mainly in grammar and punctuation as a result of the first language interference which is very tangible in their writings.

Nevertheless, experts believe that making mistakes is a part of learning process, particularly in language learning. Selinker (1972, 1992, in He and Mathes, 2001), for example, believed that "mistakes are important components of learning a language and must be corrected in order to assist students in producing the target language more accurately." Additionally, other experts like Han (2002), Havranek (2002), and Swain (1991) strongly believed that it is important for writing teacher to emphasize on language form feedback so as to promote L2 acquisition when producing output (as cited in van Beuningen, 2010). Helping students to distinguish their errors in written work and helping them to produce the correct form through the feedback relate to aspects of providing written corrective feedback (WCF). The next section discusses the statement of the research problem.

1.2 Statement of the Research Problem

WCF is widely used among writing teachers in attempt to improve students' language accuracy in their written tasks. Experts like Sheen (2007) and Bitchener (2008) believe that error correction plays a significant role in language accuracy development. The

results based on their studies indicate that error correction is important because it is effective and helpful in the development and improvement of students' accuracy in L2 writing. However, critics such as Truscott (2007) contends not only WCF is an ineffective way to help learners improve their language accuracy, but it can also pose detrimental effects on the learning process. The efficacy of error correction has been debated in the past decade and to date, many researchers have tried to refute Truscott's claim by providing empirical evidence on the values of WCF on learners' ability to write accurately. Bitchener and Knoch (2008) stated that different studies exhibit various results; therefore, it is uncertain to whether the claims can be contrary to or in agreement with that of Truscott's.

Corrective feedback can be operationalized in terms of direct and indirect WCF. There are studies which have investigated the effects of these two types of WCF. Bitchener and Knoch (2008) examined five studies which compared the effectiveness of direct and indirect WCF. These studies were studies from Chandler, 2003; Ferris, 2006; Lalande, 1982; Rob et al., 1986; and Semke, 1984. From this review, two studies like Semke, 1984 and Robb et al., 1986 (as cited in Bitchener & Knoch, 2008) reported no difference in accuracy performance, another two studies, Lalande, 1982 and Ferris, 2006 (as cited in Bitchener & Knoch, 2008) supported indirect WCF and one study, Chandler (2003) according to Bitchener & Knoch (2008), supported direct WCF. Many of these results indicated mixed findings.

The results were inconclusive because of variation in how the effectiveness of WCF was measured. According to Sheen (2007), some previous studies such as Ferris and Roberts (2001) and Fathman and Walley (1990) determined students' accuracy performance based on their corrections in a revision of their first draft; meanwhile, others like Chandler, 2003 and Kepner, 1991 (as cited in Sheen, 2007) looked at the

improvement in homework essay assignments or journal entries over a long period of time. Ashewell, 2000 and Robb et al., 1986 (as cited in Sheen, 2007) only examined gains on linguistic accuracy and fluency in writing.

There are some studies which examine improvement only on learners' revised texts. According to Sheen (2007), Fathman and Whalley (1990) examined intermediate ESL college students' writing and they found that WCF on both form and content improved students' accuracy gains in their revisions. Similarly, Ashwell (2000, in Sheen, 2007) found that grammar correction worked equally effective on adult learners in improving their grammatical accuracy in written compositions. Despite the accuracy gains in students' first draft, writing homework or revised texts, Truscott (1999) argues that improvement in revisions alone does not signify the evidence that learning has occurred. Sheen (2007) states that to determine whether WCF is effective, "one should examine the improvement in revisions carries over to a new piece of writing or one should examine whether the improvement in revisions carries over on a post-test or delayed post-test" (p. 258). Because of the inconclusive results which derive from previous studies on direct and indirect WCF, this prompted the researcher to look into the matter. The subsequent section discusses the significance of the study.

1.3 Significance of the Study

This study investigates the relative effectiveness of different WCF options on ESL students' use of the past tenses benefited English teachers. Findings from this will enable teachers to choose optimal feedback options that are deemed suitable to be applied in correcting students' essays.

Besides that, this study will also benefit ESL learners. Students will be able to identify the targeted errors (in this case, the errors relate to past tenses) and recognize ways of

correcting them. Since errors related to past tense are considered as treatable errors because they are rule-based, the findings from this study may shed light on ways to address issue related to the wrong use of past tense among students. The next two sections address the research objectives and research questions.

1.4 Research Objectives

This study aimed to address the issues of the efficacy of direct and indirect WCF on ESL learners' linguistic accuracy. The research specifically attempted to discover whether different types of feedback influenced students' use of the past tenses in writing. To be more specific, the study attempted to address three objectives, which were:

1. To find out if there was any difference in the use of the past tenses of students who received direct WCF and indirect WCF;
2. To examine the effectiveness of direct and indirect WCF on the past tenses over a period of time and;
3. To explore factors that contributed to the accurate use of the past tenses resulting from direct WCF and indirect WCF.

1.5 Research Questions

This study was conducted to answer three research questions:

1. To what extent do students' accuracy in performance in the use of the past tenses differ between ESL students that receive direct WCF and indirect WCF?
2. To what extent do direct and indirect WCF on accuracy performance in students' use of the past tenses varies over time?
3. What are the factors that influenced the performance of the students in the use of past tenses in relation to direct WCF and indirect WCF?

1.6 Limitations of the Study

There are three limitations in this study. The first limitation is that the present study is limited to the types of WCF employed. This is because the present study delves into two types of WCF only, which are direct and indirect corrective feedback. Thus, results ensued from the findings may differ from other studies that apply different types of WCF.

The second limitation is that the present study focuses on one target linguistic feature, which is the past tenses. Other linguistic features such as the use of correct articles, present tenses, or even prepositions are not focused in this study. For that reason, the use of other forms are not analysed and discussed on the findings.

The final limitation is that the present study employs one type of writing task, which is narrative writing. Since participants have been exposed to narrative writing at the beginning of their first year in the secondary school, the writing task enables them to produce a substantial number of past tenses uses. Therefore, there may be a difference in the results should other types of written task are carried out using the same treatment.

1.7 Ethical considerations

Permission to conduct the study is requested from the principal of the secondary school before collecting the data. Each participant is given informed consent (See **Appendix A**). Moreover, the participants are informed in writing that all of their responses are confidential and these responses are only used for the purpose of the study only. The purpose of the study, data collection method and participation needed from the respondents are explained to them. Besides that, it is vital to ascertain that the study carried out does not influence participants' performance in the proficiency course they are taking. Therefore, the study is carried out outside of the allocated class hours with the consent of the participants, participants' parents as well as the class teachers.

1.8 Summary

The present chapter has provided the background of the problem, followed by statement of the research problem, justification of the research problem, significance of the study, research objectives, research questions, and conclusion. Chapter 2 will comprise of literature review relating to this study. Chapter 3 describes the methodological steps taken to collect and analyse data. In Chapter 4, results and findings connecting to the research questions of this study are discussed. Finally, Chapter 5 presents on the summary of research findings, research implications, limitations and suggestions for future research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Overview

This chapter will outline the study of second language acquisition in general and the origins of its studies relate to writing. The chapter then discusses the early research of corrective feedback in second language acquisition, some of the general theories in second language acquisition and the early corrective feedback research. Besides that, the chapter also will delve into the theoretical framework of the present study, approaches and methods to WCF. Discussions are expanded into reviews on research evidence of past studies which include studies that compare direct and indirect WCF, arguments for and against WCF, the roles of WCF as well as issues related to WCF in language learning.

2.1 The Study of Second Language Acquisition

Second language acquisition (SLA) is the study of how second languages are learned. There are various definitions of SLA as described by experts. Gass and Selinker (2008) for example, refer SLA as “the study of the acquisition of a non-primary language; that is, the acquisition of a language beyond the native language (p. 1). Gass and Selinker (2008) believe that when learners learn a second language, they generate a new language system with little exposure to that language. Also, when learners learn a second language, some do not accomplish the same degree of proficiency in a second language as they do in their native language.

Another expert, Saville-Troike (2006) refers SLA as “the study of individuals and groups who are learning a language subsequent to learning their first one as young children, and to the process of learning that language” (p. 2). Saville-Troike (2006)

further indicated that the additional language is called a second language (L2), even though it may actually be the third, fourth, or tenth to be acquired. A second language is also commonly called a target language (TL).

Finally, Ellis (1998) stresses that SLA requires careful explanation. He emphasizes on the context of 'second' which can be denoted to any succeeding language learned besides the mother tongue. Accordingly, it can refer to the learning of third or fourth language. Also, Ellis (1998) emphasizes that 'second' is not intended to differ with 'foreign'. Whether an individual is learning a language naturally on account of living in a country where it is spoken, or learning it in a classroom through instruction, it is customary to speak universally of 'second' language acquisition.

Therefore, the scope of SLA concerns with any phenomena involved in learning an L2. Learning an L2 is a long and complex undertaking. Understanding SLA is related to complex in nature as advocates of SLA come from various academic disciplines who believe in different theory and research methods. The approach to exploring SLA phenomena has offered both vital insights and frustrating findings. The next section describes the origins of SLA studies.

2.2 The Origins of SLA Studies

In the late 1960s, the development in empirical SLA studies increased. This sudden development in SLA studies became prevalent because of several factors. According to Ellis (1992), the factors were: (1) previous work in first language (L1) acquisition, (2) theoretical conflict as a result of contrasting views of how language is acquired, and (3) a growing disillusionment with existing approaches to the teaching of an L2.

Empirical studies of L1 acquisition in the early 1960s (Roger Brown, 1973; Dan Slobin, 1973; De Villiers, 1973 in Ellis, 1992) informed early work in L2 acquisition. The Roger Brown (1973) study observed a longitudinal research of three children learning English. Brown and his associates collected data based the conversation between the children and their mothers. Based on the conversations, they investigated how children gained control over the English grammatical system. Moreover, in the Dan Slobin (1973) study, Slobin and his associates observed a longitudinal research and focused on describing and accounting for the linguistic improvement in young children. The De Villiers (1973) study on the other hand, used a different approach. De Villiers and his associates collected data from a larger number of children and the focus was on determining the children's performance in the accuracy use of grammatical morphemes, particularly on the plural *-s* and past tense *-ed*. At the end of the study, they hypothesized that accuracy order and acquisition order would be closely related.

Based on these L1 acquisition studies, Ellis (1992) further states that experts in the SLA field saw the similarities between L1 and L2 acquisition studies in a number of ways. First, L1 acquisition studies revealed that it was conceivable to investigate how a language was acquired in effective and consistent ways. Second, they offered a set of methodological procedures that could be used equally well in the study of L2 acquisition. Third, they provided a body of descriptive information about how children acquired English as their L1 which could serve as a baseline for investigating how learners acquired English as an L2. Fourth, they addressed key theoretical issues such as the extent to which L2 acquisition was influenced by environmental or innate factors.

As a result of the findings from L1 acquisition studies, earlier theoretical perspectives about how an L2 is acquired and about the role of error in that process were rapidly being undermined. The role of error in the L2 learning process was, therefore, "seen less

in terms of a sinful act that must be prevented from occurring and more positively as an indicator of the mental processes that take place during the learning and acquisition of the target language” (Bitchener & Ferris, 2012, p. 6). Before discussing the role of error in L2 development, it is essential to review the kind of research on corrective feedback that was being carried out in the early years. The next section explains the early research on corrective feedback in SLA process.

2.3 Early Corrective Feedback (CF) Research

Since SLA scholars and researchers (Krashen, 1981; Schwartz, 1993 in Truscott, 2007) are keen on how ESL learners learn or acquire a second language; hence, they are occupied with what should be possible to help learners conquer the errors they make during the time spent acquiring the target language. This brings up the issue about the degree to which errors ought to be seen in a negative or positive light. Some errors are seen as negative because they are viewed as linguistic acts that need to be avoided from occurring. Also, some errors are seen as positive because they exhibit the progress of learners’ current level of acquisition and the role they can hold in the target language development. To view this issue in general, one has to consider the pedagogical approaches that have been promoted in the literature. The next subsection describes the pedagogical approaches to error correction.

2.3.1 Pedagogical Approaches to Error Correction

In the early years, SLA researchers did not put emphasis on the fundamental questions about whether or not, and the degree to which, CF can possibly help learners acquire the target language. However, error correction was approached based on intuition about what seemed to be efficient practice. In other words, “the approach to method does not rely on experimentation at all; it relies, rather, on the insights, introspections and observations of experienced language teachers and students of foreign languages”

(Krashen, 1982). Krashen further noted that although the results of research were frequently reported in professional journals, teachers' insights were hard to access and share.

Furthermore, according to Krashen (1982), "mini-conferences" were often arranged by language teaching organizations so that experienced teachers could share their insights and techniques with others. The only ample evidence to this effective practice was the word of the teachers on the techniques to be tried out in different classes. Empirical support for new techniques was nevertheless scarce. Since new techniques were scarce, studies on CF in the past were based on the five fundamental questions as listed by Hendrickson (1978, in Bitchener & Ferris, 2012). Hendrickson (1978) reviewed the literature that addressed the questions on the reasons by outlining 1) whether errors should be corrected, 2) when errors should be corrected, 3) which errors should be corrected, 4) how they should be corrected, and 5) who should do the correcting.

The first question emphasizes on whether learner errors should be corrected. The main focus of this pedagogical approach was more on reasons for correcting the errors. It was not projected to play a role in the SLA processes. According to Corder, 1973; George, 1972; and Kennedy, 1973 (as cited in Bitchener & Ferris, 2012), "correction was important because it was expected to help learners identify their own errors and discover functions and limitations of the syntactical and lexical forms of the target language" (p. 7). In addition to this reason, a survey conducted by Cathcart & Olsen (1976) on college students' attitudes toward error correction revealed that students wanted their errors to be corrected and they wanted to be corrected more than teachers believed was necessary.

Furthermore, the second question emphasizes on when learner errors should be corrected. Both Bitchener and Ferris (2012) quote from Hendrickson (1978) who observed at least 15 pieces of literature which claimed that teachers had generally rejected the compulsive concern with error avoidance, willingly accepted a wide range of errors and only considered errors which they thought were the most problematic.

The third question emphasizes on which learner errors should be corrected. Teachers during these years had considered three broad categories of errors which were worth of correcting: errors that substantially impair communication, errors that have significantly stigmatizing effects on the listener or reader, and errors that occur repeatedly in learners' speech and writing.

The fourth question emphasizes on how errors should be corrected. During these years, this practice obtained inadequate empirical attention in spite of the various error correction methods being advocated. However, James (1998) listed three principles in error correction that can be used to tackle students' errors. First, it is sensible to involve techniques in error correction which allow to improve students' accuracy in expression. Secondly, it is sensible to take students' affective factors into consideration and it is important not to impose face-threatening to students when correcting their errors. Lastly, it is sensible to include indirect correction as it encourages students to self-correct their errors in heuristic method as well as presents the correct form so students could not feel embarrassed.

Finally, the fifth question emphasizes on who should correct learner errors. Even though there were suggestions made about the value of implementing teacher correction, peer correction, and self-correction, Hendrickson, 1978 (as cited in Bitchener & Ferris,

2012), pointed out that the outcomes of these approaches could only be supported or disproved by conducting a number of controlled experiments.

Overall, teachers and researchers tacitly employed the practice of error correction in the early years based on intuition. Even though they had inadequate empirical evidence on which approach to practice their handling of learner errors, they had plenty of exposure on the theoretical and anecdotal views. The next subsection discusses thoroughly on the first general SLA theory, which is Krashen's Monitor Model and its significance to error correction.

2.3.2 Krashen's Monitor Model and Its Relevance to Error and Feedback

In the early years of SLA research, researchers investigated error correction based on intuition. In the beginning of the 1980s, however, there was a change of direction as Krashen and his supporters criticised the role of error correction in the SLA process. One of the earliest theory that emerged from this opposite direction is the Monitor Model proposed by Krashen in 1982.

There are five basic theories in the Krashen's Monitor Model. Each of the theory has consequences for the way in which error is assessed and the extent to which it is worth treating. Krashen's five general theories received considerable criticism from advocates of written CF despite the influence these theories gave in shaping the direction of consequent perspectives. The five general theories are the acquisition-learning hypothesis, the monitor hypothesis, the natural order hypothesis, the input hypothesis, and the affective filter hypothesis. The next subsection describes the significance of each theory relates to error correction.

2.3.2.1 The Acquisition-learning Hypothesis

The first theory proposed by Krashen is the acquisition-learning hypothesis. In this hypothesis, Krashen (1982) distinguished between “acquisition” and “learning”. He described “acquisition” as a subconscious process which is similar to the way children develop ability in their first language. “Learning” on the other hand was referred as the conscious process that results in ‘knowing about’ language. Furthermore, according to Krashen, “acquisition” occurs as a result of learners interacting in a meaningful communication and natural environment. Meanwhile, “learning” occurs as a result of classroom instruction where target-like form is focused.

In relation to error correction, Krashen indicated that the differences between “acquired” and “learned” target language could not be assimilated as a whole. Krashen believed that CF did not play a role in developing learners’ acquired knowledge by cross-referencing the evidence with evidence from an observation on child language acquisition conducted by Brown and his colleagues. From the observation, it was shown that parents only corrected a small portion of the child’s language such as infrequent pronunciation problems, certain verbs, and dirty words. They concluded that parents were likely to prefer the truth value of what the child was saying rather than to the form. In other words, indication from child language acquisition substantiated that error correction did not influence acquisition to any great extent. That is, there was no value for acquisition in the learning which resulted from instruction and CF.

2.3.2.2 The Monitor Hypothesis

The second theory is the monitor hypothesis theory. In this hypothesis, Krashen proposed that learners are able to monitor or edit what is produced by the acquired system (Bitchener & Ferris, 2012). The hypothesis operates effectively only when learners are given ample time to monitor, when learners are given a focus on the target-

like accuracy, and when learners have relevant linguistic schemata to the target form or structure.

From these claims, Krashen did not seem to rule out entirely the existence of CF in the written context so long as the target linguistic error category had been acquired. In the case of error correction, Krashen argued that CF would be of no value if learners were still acquiring the linguistic form or structure.

2.3.2.3 The Natural Order Hypothesis

The third hypothesis is the natural order hypothesis. Krashen suggested that when learners acquire a language, they acquire the rules of the language in a predictable manner. Some predictable manners come early and others come late. According to Krashen (as cited in Bitchener & Ferris, 2012), the manner is not determined merely by formal simplicity and the manner is not dependent on the manner which rules are taught in language classes.

In the case of error correction, Krashen implied that CF is ineffective because there is no value to be gained from classroom instruction. In other words, he suggested that CF should be viewed as unnecessary since a focus on CF in the classroom is not going to aid the acquisition process.

2.3.2.4 The Input Hypothesis

The fourth hypothesis is the input hypothesis, which arises from the natural order hypothesis. This hypothesis stated that L2 learners can gain accuracy development when they receive ample comprehensible input. In other words, when learners receive input about the target language that is slightly ahead of their current level of syntactic complexity, they are likely to move along the developmental progress. Krashen (1982)

further explained that if a learner's current level is i , then comprehensible input for that learner will be $i + 1$, where 1 refers to the next stage in the developmental progress.

In relation to error correction, Krashen (1982) believed that when learners receive sufficient input and the input itself is understood, their necessary grammar is automatically provided. So, when learners are adequately exposed to comprehensible input, formal grammar instruction is not necessary and therefore, there is no value in focusing on learners' errors that have been made or trying to treat them in any ways.

2.3.2.5 The Affective Filter Hypothesis

The fifth hypothesis is the affective filter hypothesis. The affective factors such as motivation, self-confidence, anxiety, and attitude have effects on learners' acquisition in second language. Such factors can facilitate or prevent the delivery of input from reaching the language areas of the learners' mind, which is the language acquisition device (LAD). Krashen (1982) noted that learners with high motivation, high self-confidence and low anxiety experience low filter and thus, become more likely to be successful language acquirers. On the other hand, learners with low motivation, low self-confidence and high anxiety experience high filter.

Krashen (1982) believed that there should be absolutely no error correction of the student. He further stated that classroom comes in assistance to learners only when comprehensible input is provided in an environment which has a low filter situation, providing that acquisition is more predominant and learning is less central. The reason being is that comprehensible input and the strength of the filter are the true causes of second language acquisition.

Overall, Krashen's claims on his hypotheses have received extensive criticism from various advocates of CF because of their faultiness theoretically and empirically. Nonetheless, his claims have been greatly influential in pedagogy whereby more recent theoretical and empirical evidences have been developed. Since empirical evidence to prove his claims are lacking, other scholars, such as Long (1996, in Gass & Selinker, 2008), moved to develop the theories from different perspectives. The next subsections explains Long's Interaction Hypothesis.

2.3.3 Long's Interaction Hypothesis

The Interaction Hypothesis, according to Long, 1996 (as cited in Gass & Selinker, 2008) proposed that "environmental contributions to acquisition are mediated by selective attention and the learner's developing L2 processing capacity, and that these resources are brought together most usefully, although not exclusively, during negotiation for meaning. Negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development, at least for vocabulary, morphology, and language-specific syntax, and essential for learning certain specifiable L1-L2 contrasts" (p.349). The hypothesis specifically emphasizes on learning through exposure to language (input), production of language (output) and feedback that comes as a consequence of interaction. The hypothesis also highlights that when learners interact, they try to improve comprehension by utilizing conversational tactics such as repetitions, confirmation checks and comprehension checks.

Long's hypothesis was then reformulated which emphasizes the role of negative feedback. When learners receive negative feedback through interactions, the feedback facilitates their language learning development. Negative feedback allows learners to negotiate for meaning which helps them to enhance their focus to the L2 uses. The reformulated hypothesis also contains the beliefs that a learner's processing capacity

and degree of attention to linguistic form may determine the extent to which L2 input becomes L2 intake (Bitchener & Ferris, 2012). However, in Krashen's input hypothesis, he believed that it was inadequate for a learner to pay attention to the meaning entrenched in comprehensible input for acquisition to occur.

Other interactionists (Sharwood Smith, 1981; 1993 and Schmidt, 1990; 1994 in Bitchener & Ferris, 2012) disclosed that if acquisition is to occur, learners need to focus their attention on language form and structure. The evidence of this can be seen in the study conducted by Harley & Swain (1984, as cited in Bitchener & Ferris, 2012). In the study that centralized on French immersion programs in Canada, in spite of learners showing their fluency development, functional abilities, and confidence in using the target language, they fail to reach high levels of performance in some aspects of French grammar. As a result, interactionists explain the need to provide learners with negative evidence as well as positive evidence.

Schmidt (1994 in Bitchener & Ferris, 2012) argued that it is crucial to differentiate the various types of attention when providing negative evidence. These various types of attention include noticing, understanding, and awareness. Noticing indicates the process of bringing some stimulus into focal attention, meanwhile understanding and awareness refer to explicit knowledge. Schmidt asserted that noticing leads to learning, but the role of awareness was less significant. From empirical proof, Schmidt noticed that learners can make judgments about what is acceptable and unacceptable in target language data without essentially having the ability to explain the basic rule. In terms of the roles of feedback, studies conducted are predisposed towards negotiation and recasts. These two types of feedback are deemed to distinctly exhibit interactional moves and their effects on language learning development.

In summary, the Interaction Hypothesis proposed a role for negative evidence (i.e. corrective feedback) in the SLA process. It also utilizes the interactional functions that occur by negotiating the input to convey intended meaning in establishing meaningful communication taking place. The next subsection discusses on another theory which is developed after Krashen's claim: Swain's Output Hypothesis.

2.3.4 Swain's Output Hypothesis

Another hypothesis which is linked to the Interaction Hypothesis is the Output Hypothesis. Output Hypothesis was proposed by Swain (1993). According to Swain (1993), the hypothesis proposed that language acquisition/learning may occur through producing spoken or written language. Swain further stated that there are four ways in which output might play a role in the process of L2 learning.

The first way in which output plays a role is that the production of language provides learners with an opportunity to practice their linguistic resources in a meaningful way; thus, this permits the automaticity progress in their use. In this case, fluency is more emphasized rather than accuracy. The reason being is that frequency is gained through the frequent use of the language. Because of this reason, teachers give opportunities to students to speak in class. However, Swain stated that speaking just to speak is not enough.

The second way in which output plays a role in language production is that it may force learners to move from semantic processing to syntactic processing. According to Krashen, 1982 (as cited in Swain, 1993), learners do not utilize syntax in understanding. Instead, they are likely to understand the message with a combination of vocabulary, or lexical information plus extra-linguistic information. In other words, producing language forces learners to identify what they do not know or what they know partially.

Another way in which producing language may influence language learning process is through hypothesis testing, which is trying out means of expression and see if they work. This suggests that learners make use of their linguistic resources to generate new knowledge by the method of “trial and error”.

The final way in which output is the route to language learning process is through feedback. Feedback allows speakers of the language or interlocutors to generate responses which supply learners with clarified information of their utterances. Feedback may appear in the form of confirmation checks, clarification requests, or implicit or explicit corrections. According to Swain (1993), feedback can lead learners to modify or “reprocess” their output.

In Long’s Interaction Hypothesis, the role of negative evidence is emphasized. Meanwhile, in Swain’s Output Hypothesis, feedback is deemed as essential in language learning process. Therefore, in the present study, the negative evidence is the two WCF types (direct and indirect) provided to the learners’ written work. The treatment, which includes the written task and written corrective feedback that the participants were required to complete was created based on previous empirical studies and primarily guided by the Output Hypothesis as the theoretical framework of the present study. Detailed explanation of this framework is discussed in the following section.

2.4 Theoretical Framework of the Present Study

The current study is guided by the framework that is based on the Output Hypothesis by Swain. Swain (1993), contends that comprehensible input (i.e. second language production) ensures mental grammatical processing and it is the most efficient incentive for the development of the learner’s interlanguage; therefore, comprehensible input plays a significant role in L2 acquisition. Moreover, one essential stipulation of this

hypothesis, according to Swain, is that learners should be “forced” to produce language if they are actively engaged and given the opportunities to use it.

According to Ellis (1998), Swain lists out three functions in the Output Hypothesis: the noticing function, the hypothesis-testing function, and the reflective function (i.e. metalinguistics). The first function denotes learners’ awareness towards certain linguistic forms which takes place in a language production. With the help from this function, learners are able to realize the linguistic “gap” in their interlanguage system and subsequently, noticing the “gap” pushes them to seek for sufficient knowledge to fill this “gap”. In line with this, providing direct WCF and indirect WCF to learners’ written work is one way of pushing their awareness of this “gap”.

The second function suggests learners to use a form of trial-and-error to test their comprehensibility of certain linguistic forms. In this case, learners notice what they do not know or what they partially know when they encounter linguistic gaps between what they want to write and what they are able to write. The process of testing gives them the opportunities to modify or reprocess their output when WCF is invoked.

The third function refers to learners’ metalinguistics knowledge. When learners reflect their linguistic knowledge, this will lead them to discovering new formula in their interlanguage system. In other words, learners reflect the language they learn, and thus, the output enables them to control and internalize the linguistic knowledge. The present study therefore, aimed to ascertain any differences between the two feedback options when learners went through the correction stage. The next section discusses on various approaches and methods of WCF before delving into the two types of feedback observed in the present study.

2.5 Approaches and Methods of WCF

Corrective feedback on students' L2 writing can take many different forms. These forms can be carried out based on their explicitness, their focus, the person providing the feedback, or the feedback medium. In fact, teachers are encouraged to use different types of WCF when dealing with students' errors. Using various types of WCF is considered as effective and successful compared to relying on a single technique. The two general dichotomies which receive the lion's share of researchers' attention are selective (focused) and comprehensive (unfocused) approaches, and the contrast between specific methods: explicit (direct) and implicit (indirect) WCF. The subsection below describes the focus and unfocused approaches.

2.5.1 Focused vs. Unfocused

According to van Beuningen (2010), the focused-unfocused dichotomy refers to the comprehensiveness of WCF provided by teachers on students' written work. The focused approach involves specific linguistic forms, leaving errors outside the focus domain uncorrected. The unfocused approach, on the other hand, concerns teachers' correction on all students' errors, regardless of the error category.

Different conjectures have been drawn out with regard to the efficacy of both approaches. Correcting errors using the focused approach may promote more noticing among the students. In other words, the focused approach in WCF may give greater potential to impact students' accuracy development. The reason is that students tend to notice and understand corrections when a set of error type is highlighted.

Similarly, researchers like Sheen (2007) and Bitchener (2008) believe that the unfocused approach may not be the most effective correction method to be applied compared to the focused approach. The reason is that L2 students have a limited

processing capacity and they may experience cognitive overload if they cope with error correction that covers a wide range of linguistic forms. Besides that, students are able to learn new features of L2 effectively only when they are developmentally ready.

Besides the focused and unfocused approaches, another distinction often made in the literature is the contrast between explicit and implicit methods are also examined in WCF studies. The next subsections describes studies that incorporated explicit and implicit WCF.

2.5.2 Explicit and Implicit WCF

Lightbown and Spada, 1999 (as cited in El-Tatawy, 2002), define corrective feedback as any indication to learners that their use of the target language is incorrect. The feedback can be in an oral or written form. In light of L2 writing, there are some past studies which incorporated more than one treatment as the WCF. This relative effectiveness of different WCF was compared in order to determine the improvement in students' accuracy performance in writing. Hence, another two prominent types of WCF which are widely investigated are explicit (direct) and implicit (indirect) WCF.

2.5.2.1 Explicit or Direct WCF

Bitchener and Knoch (2008) describe direct WCF as the provision of the correct linguistic form or structure by the teacher to the student above or near the linguistic error. It may include the crossing out of an unnecessary word / phrase / morpheme, the insertion of a missing word / phrase / morpheme, or the provision of the correct form or structure. According to Bitchener and Ferris (2012), direct WCF has recently included written meta-linguistic explanation (the provision of grammar rules and examples of correct usage) and, sometimes, oral form-focused instruction (to further clarify the written meta-linguistic explanation).

Findings from a study conducted by Chandler (2003) showed that direct WCF worked better than indirect WCF. Direct WCF also resulted in the largest accuracy improvement in both text revisions and subsequent writing. In support of direct WCF, Chandler (2003) and Bitchener & Knoch (2009) presented three main arguments. The first argument states that direct WCF benefits students more as it helps them lessen the confusion they encounter when they do not understand or remember what the feedback conveys. The second argument underlines that direct WCF supplies ample information to students in solving more complex errors. The third argument concerns the belief that direct WCF provides learners with more immediate feedback on hypothesis that they may have made.

2.5.2.2 Implicit or Indirect WCF

Bitchener (2008) identifies indirect feedback as an error correction which indicates that in some way, an error has been made in writing. This indication can be in a form of underlining the errors or writing error codes on top of the errors. Therefore, students are required to resolve and correct the error which has been indicated instead of having the teacher provide an explicit correction.

Ferris and Roberts (2001) claim that indirect WCF is helpful as it involves students engaging in guided learning and problem solving. Ferris (1995, as cited in van Beuningen, Jong & Kuiken, 2008) further claims that indirect WCF is beneficial because students get to engage in a more profound form of language processing as they are editing their output. The reason to this is because of the use of error codes which pushes students to engage in hypothesis testing. The next subsection describes the use of error correction codes in indirect WCF.

2.5.3 Error Correction Codes

Another type of indirect WCF is the use of error correction codes, which was also used for the current research. Using error correction codes include symbols like ‘^’ to indicate a missing word, or ‘Ø’ to indicate omission of a word; and abbreviations like ‘sp’ to indicate a spelling error and ‘vt’ to indicate the wrong use of verb tense. See **Appendix B** for more details on the examples of the codes. These codes, according to Hyland (1990), are helpful because they allow teachers to provide implicit feedback, and reduce negative or disheartening effects of error indication. Harmer, 1991 (as cited in Corpuz, 2011), states that the use of error correction codes is relevant to language teachers who are very meticulous with accuracy, the results of which is that students’ writing are often covered with red ink.

Besides the effectiveness of correction feedback methodology, experts have also shown some concerns relating to which errors to focus when correction feedback is provided. Various proposals have been identified with regard to this matter. The next subsection describes WCF on the different types of errors.

2.5.4 WCF on Different Types of Errors

According to Corder (1967, in van Beuningen, 2010), *errors* and *mistakes* are different. In his review, errors are systematic inaccuracies and they reveal gaps in learners’ interlanguage system. Mistakes, however, are unsystematic inaccuracies (i.e. slips of the tongue/pen) and they arise as a result of failure in performance, especially when learners experience memory limitations. Corder (1967) suggests that it is useful to correct learners’ errors but not their mistakes. He further claims that errors committed by L2 students are important. It is important because based from these errors, teachers are well-informed of their students’ progress towards the language course objective. Secondly, errors committed by students lead researchers to gaining ample information

as to how the target errors are addressed and what strategies are used in order to achieve the accuracy improvement. Finally, errors are important because they are essential tools that students use to learn the L2.

Furthermore, Burt (1975, in van Beuningen, 2010) distinguished two types of errors into *global errors* and *local errors*. Global errors like word order errors or lexical errors occur when communication is affected as a result of interference in the whole message of utterance or written text. Global errors may be a less serious yet high frequency error, such as an incorrect or missing article, which students make throughout a large portion of the text. Meanwhile, local errors are minor linguistic violations (e.g. morphological errors) and they occur when the intended meaning of a message is not affected. Local errors usually do not harm the fluency of an entire sentence or paragraph. Local errors will become more serious global errors if they appear repeatedly within a portion of the text.

Lastly, *treatable* and *untreatable* errors are issues that concern researchers. Most of the recent WCF research has been designed to target treatable errors. It was found that treatable errors are often corrected by the students effectively (Ferris and Roberts, 2001). For dealing with untreatable errors, it requires as a combination of strategy training and direct correction, as suggested by Ferris (2010). According to Bitchener, Young & Cameron (2005), the distinctions between treatable and untreatable errors were introduced by Ferris (1999). Treatable errors include verb tense and form, subject-verb agreement, article usage, plural and possessive noun endings, and sentence fragments. Because errors occur in a rule-governed way, learners can be pointed to a grammar book or set of rules to resolve the error. On the other hand, untreatable errors include word choice errors, with the possible exception of some pronoun and

preposition uses, and unidiomatic sentence structure, resulting from problems to do with word order and missing or unnecessary words. These errors tend to be idiosyncratic.

In spite of the proposals mentioned above, problems in error correction still exist and no clear theoretical basis has been provided. There are also no theoretical grounds on which teachers or researchers can decide whether an error is simple and portable. However, the effects of targeting specific types of errors when error correction is provided still require further exploration. The next subsection explains the error selection in regards to WCF.

2.5.5 Ways of Addressing Errors by Teachers

Irrespective of the WCF techniques that teachers use, one of the crucial subjects of debate among writing teachers is whether to perform overall correction or to practice selective error correction on students' written work. Overall correction, according to Pehrsson and Denner, 1989 (as cited in El-Koumy, 2000) occurs when the writing teacher emphasizes detailed correction, which is correcting every error committed by students. Meanwhile, Truscott (2001) points out that selective error correction occurs when the writing teacher marks students' errors based on need; in other words, teacher corrects errors that are particularly essential or corrects errors which students find difficult to solve on their own.

Overall correction draws a lot of negative perceptions. To begin with, overcorrection causes a severe harm to the relationship between student and teacher. Consequently, students lose interest in writing. Furthermore, overcorrection is the reason for students to have low self-esteem. Seeing the sea of red ink on their written work can actually discourage any students and even the most highly-motivated students fail to tolerably deal with every error in their work. In addition, overcorrection might hamper the

process of learning of writing. This is because students fail to learn all at one and they have the tendency to write less because they want to avoid committing errors. Finally, overcorrection is unpleasant and time-consuming for teachers as it requires them to stay for countless hours correcting their students' written work; therefore, contributes to a lower quality of correction.

Selective error correction, on the other hand, is favoured by most writing teachers because it is less time-consuming. This approach is beneficial as it helps students learn to focus on their written work; helps them to identify certain error types to which they might be most susceptible to committing errors; and helps them to master grammatical terms and rules related to those specific errors. According to Truscott (2001), it is assumed that this approach is generally effective and it serves as an all-purpose tool that can be used wherever the need is greatest.

Even if teachers give more error correction, this does not demonstrate the success in the development of students' grammatical accuracy in writing. According to Ferris, 2002 (as cited in Lee, 2003) it is possible that error feedback is most effective when it "focuses on patterns of error, allowing teachers and students to attend to, say, two or three major error types at a time, rather than dozens of disparate errors," that is, when teachers choose to give error feedback selectively. Thus, the crux of the issue is how teachers should set about error correction in order to obtain maximum advantages for students.

Regardless of the difference in error selection, a number of studies comparing feedback options conclude that WCF is effective in improving students' accuracy of their writing. Previous studies often included more than one treatment alternative. Rather than proposing that the findings disclosed evidence in support of WCF, Bitchener and Knoch

(2008) suggested that these findings should be perceived as offering insights into the relative success of various WCF types. The next sections describes the past studies on WCF.

2.6 Past Studies on WCF

Over the years, arguments have been raised regarding direct and indirect WCF approaches as to which type of feedback has more benefits on the accuracy gains. Studies which have explored the relative merits of different types of WCF have inclined to be categorized according to those which have compared (1) direct and indirect types of feedback, (2) different types of direct feedback, and 3) different types of indirect feedback.

2.6.1 Past Studies Comparing Direct and Indirect WCF

Considering studies which have compared direct and indirect WCF, findings from a longitudinal study carried out by Lalande (1982) suggested that “students who were given indirect WCF outperformed students that received direct WCF” (van Beuningen, de Jong & Kuiken, F., 2008, p. 282). Findings from another study by van Beuningen et al. (2012) revealed that indirect group was involved in more form-focused activities than the direct group because the two treatments differed in more respects than just the method of corrective feedback provision. In the Frantzen (1995) and Robb et al. (1986) studies, their findings exhibited that both types of feedback worked effectively. Findings from a study conducted by Ferris et al. (2000) however, revealed a dissimilar pattern: indirect WCF worked effectively on students’ accuracy gain in subsequent writing and direct WCF improved students’ accuracy in revisions. In the Robb et al. (1986) study, results showed no accuracy gains for any of their four feedback types (direct error correction; coded feedback; highlighting; marginal error counts).

Recent studies on direct vs. indirect WCF which have been explored since 2014 are taken into consideration too in this literature review. To begin with, a study carried out by Rahimi & Asadi (2014) explored on the effects of different types of feedback which were direct feedback, indirect feedback and content feedback on EFL learners' writing accuracy. The 9-month study involved 44 Iranian EFL learners who were put into three groups. The first two groups received both content and form feedback, while the last group received content feedback only. The target structures of the study included verb errors, noun ending errors, article errors, wrong word, and sentence structure errors. Based on the findings, results revealed that students who received direct and indirect feedback improved significantly in revisions than those who received content feedback only. Nonetheless, when the long-term improvement of accuracy was concerned, the results showed that those who received indirect feedback over time wrote more accurate essays than those who received content feedback only, while no significant difference was found between direct and indirect feedback. Rahimi & Asadi (2014) concluded that the feedback on both direct and indirect groups was not that much effective and the feedback on content group showed accuracy improvement in their subsequent essays. Quality-wise, all three groups showed an improvement but there was no significant difference among the three. The results of this study confirmed Truscott (1996) and Truscott's (1999) argument: content feedback is sufficient for improving writing quality. The implication of these results for second language writing researchers is that content feedback seems to be sufficient when long-term improvement of writing is concerned.

Another recent study carried out by Ghandi & Maghsoudi (2014) investigated the impact of direct and indirect corrective feedback on promoting Iranian high school students' spelling accuracy in English (as a foreign language). The 5-week study involved 56 secondary school students who were divided equally into two groups. The

results of the study exhibited that students who received direct feedback did not show any improvement in spelling accuracy. The outcome of the study did not diminish direct feedback, but suggested its importance and value when and only when it comes in the form of indirect feedback along with students' contribution.

Furthermore, the study carried out by Lee Chieng Shea (2014) which explored the effects of direct and indirect WCF on the use of present tenses among ESL learners. The study involved 20 secondary school students in Malaysia. They were equally divided into group one (direct WCF) and group two (indirect WCF). The results of the study provided positive evidence in support of WCF. To be specific, it was revealed that students who received direct corrective feedback outperformed students who received indirect corrective feedback in the post-test. Lee Chieng Shea (2014) further indicated that students who received direct corrective feedback improved because they read through the feedback provided and noticed the correct ways of using the tenses.

The final example of direct vs. indirect WCF study is the study carried out by Salimi and Ahmadpour (2015) which measured the differential effect between direct WCF and indirect WCF on L2 learners' written accuracy in EFL context. The study involved 30 intermediate EFL learners. All 30 participants were equally divided into group one (direct WCF) and group two (indirect WCF). The findings of the study reported that the performance of the two groups was not statistically significant. Nonetheless, the means of accuracy for direct WCF group was greater than the means of accuracy for indirect WCF group. While direct and indirect WCF demonstrated to have equal short-term effect in developing learners' accuracy, only direct WCF showed a more significant long-term effect as compared to indirect WCF.

With conflicting results, the specific effects of direct and indirect feedback remain unclear. While some studies suggest that indirect WCF may be more beneficial in particular contexts (e.g., Lalande, 1982; van Beuningen et al., 2012; Ferris et al., 2012; Rahimi & Asadi, 2014; Ghandi & Maghsoudi, 2014), other studies (e.g., Chandler, 2003; Bitchener & Knoch, 2010; Lee Chieng Shea, 2014) provided evidence that direct WCF may be more effective. There are studies (e.g., Rob et al., 1986; Frantzen, 1995) which also provided no difference across various types of direct and indirect WCF. Therefore, additional study is needed in order to generalize about the effects of direct and indirect feedback in various contexts. The next subsection explores past studies on various contexts when different types of direct feedback was employed.

2.6.2 Past Studies of Different Types of Direct WCF

There are several studies which have explored the effectiveness of different types of direct WCF on accuracy improvement. The first study was from Bitchener et al. (2005) which was carried out on 53 intermediate ESOL (migrant) learners and the targeted linguistic errors were preposition, past simple tense and definite articles. Participants were put into three groups with group one receiving direct error correction, group two receiving direct correction with oral meta-linguistic explanation, and group three not receiving any WCF. The results revealed that group two was inclined more towards accuracy gain. The reason being is that the addition of oral meta-linguistic may have been the key to accuracy improvement.

The second study was from Bitchener (2008) which consisted of 75 low-intermediate ESL learners. The target structures were the two functional uses of the English article system: the referential indefinite article “a” and the referential definite article “the”. Participants were divided into four groups: group one received direct WCF with written and oral meta-linguistic explanation; group two received direct WCF with written meta-

linguistic explanation; group three received direct WCF only; and group four did not receive any WCF. Results of the study showed that group one and group three outperformed group four whereas group two just failed to do so.

The third study was carried out by Bitchener & Knoch (2008) which involved 144 low-intermediate learners. This was an extended study to Bitchener (2008) whereby additional 69 participants were put into the same four groups. Accuracy in the using two functions of the English article system was measured over a period of two months. Even though additional 69 participants were included, the results showed no difference between the same three treatment combinations. Thus, it was concluded that because of large sample size, it was possible that the effect between group two and the two treatment groups was eliminated.

Another example of study of the different types of direct WCF is the study conducted by Bitchener & Knoch (2010). The study involved 52 low-intermediate ESL learners, investigating over a 10-month period the relative effectiveness of the same four feedback approaches. The results revealed that the groups that received WCF outperformed the group that did not receive WCF. However, there was no difference in effectiveness between the three treatment groups. This means that none of the written CF options was any more effective than another. According to Bitchener & Ferris (2012), the special significance of this finding was its investigation over a 10-month period and therefore its longitudinal measurement of the effectiveness of different types of CF on accuracy retention.

The final example of study is the study conducted by Sheen (2007). Sheen's study consisted of 91 ESL learners. The participants were put into three groups: group one was given a direct WCF, group two was given direct WCF with meta-linguistic

explanation, and group three was not given any direct WCF. The target structure of the study was the definite and indefinite articles. Results of Sheen's study revealed that direct WCF and direct WCF with meta-linguistic explanation found no difference in the immediate post-test stage. However, after two months, the results showed an advantage for direct WCF with written meta-linguistic over direct WCF alone in the delayed post-test stage. According to Bitchener & Ferris (2012), Sheen proposed that the passage of time may have been the important factor in helping this delayed effect for the inclusion of meta-linguistic explanation.

2.6.3 Past Studies of Different Types of Indirect WCF

Although there is ample empirical literature review on the different types of direct feedback, there is little literature review that focuses on studies that observe different types of indirect feedback on accuracy improvement. According to Hartshorn & Evans (2015), there are studies which differentiate between indirect feedback that is coded where a symbol conveys metalinguistic information about the specific error types and feedback that is uncoded where errors are identified through some type of marking such as circling or underlining (e.g., Ferris & Roberts, 2001; Robb, Ross, & Shortreed, 1986).

The study carried out by Asiah Kassim & Lee Luan Ng (2014) explored the effects of focused indirect and unfocused indirect WCF on the accurate use of prepositions in ESL learners' written work. The study also analysed the language-related episodes (LREs) that occurred in the collaborative dialogue during the treatment sessions to identify the factors affecting uptake and retention of the corrective feedback in subsequent writing tasks. The study involved three groups: two groups received focused indirect and unfocused indirect WCF respectively, while one group did not receive any treatment. Based on the findings, it was revealed that the two groups that received treatment

outperformed the group that did not receive treatment in the post-test. Also, evidence from the LREs analysis suggested that extensive engagement in all the three functions of the Swain's Output Hypothesis: noticing, hypothesis testing and metalinguistic, during the collaborative dialogue contributed toward the enhancement of uptake and retention.

In brief, there has been an increasing interest in testing the effectiveness of employing WCF in various ways; nevertheless, firm outcomes are still inconclusive. Most of these past studies observe the effects in one form of WCF (i.e. different types of direct WCF or different types of indirect WCF) and very few studies (Bitchener & Knoch, 2010; van Beuningen et al., 2008) observe the effects of direct and indirect WCF. More well-designed studies on different forms of direct and indirect WCF should be carried out in order to assist in improving learner accuracy. Thus, the impact of looking at these past studies had driven the present study to take into account comparing the effectiveness of two major forms of WCF: direct WCF and indirect WCF. Though the studies of WCF in L2 writing have been examined for years, there are still some central questions that need to be addressed. One of the questions is whether WCF has a positive role in an overall effectiveness. The next sections discuss the role of WCF in SLA.

2.7 The Role of WCF in SLA

There are experts who are against error correction. One of the experts is Truscott. Truscott's (1996) persistent critiques towards the practice of WCF is that any forms of corrective feedback is harmful. This is because it takes teachers' and students' attention from more important concerns. As a result, on-going debates have been raised among SLA experts as to the role of corrective feedback in the language learning process.

Being the advocate of WCF efficacy towards learners' linguistic accuracy gains, Ferris (2004) has done a substantial amount of research work on the issues surrounding error correction in L2 writing. Although results of the studies from other scholars in the field (Bitchener et al., 2005; Bitchener, 2008; Bitchener & Knoch, 2008; Chandler, 2003) too have yielded findings with that of Ferris' (1999, 2002, 2004; 2006), there are studies (Sheppard, 1992; Polio, Fleck, Leder, 1998 in Ferris, 2004) that investigate the role of corrective feedback in language learning which reflect its ineffectiveness.

In her review of the literature, Ferris (2004) laid out six studies which compared a group that received corrective feedback and a group that did not receive corrective feedback (Ashwell, 2000; Fathman & Whalley, 1990; Ferris & Roberts, 2001; Kepner, 1991; Polio et al., 1998; Semke, 1984). Three of the six studies (Ashwell, 2000; Fathman & Whalley, 1990; Ferris & Roberts, 2001) reported positive effects of error correction. Meanwhile, one study (Kepner, 1991) reported positive evidence for error correction, but interpreted it as negative; one study (Semke, 1984) exhibited inconclusiveness due to missing information; and one study (Polio et al., 1998) supported Truscott's stance as there was no accuracy gains found in error correction.

Taking into account the diverse research findings, the methodology differences of these studies may have resulted in the failure of making clear comparison of the different studies or more specifically to set the findings in certain systematic categorization. The next subsection focuses more on the negative role of WCF in language learning which unfolds the issues laid out by Truscott.

2.7.1 Issues on WCF in Language Learning

As a proponent who is against any forms of error correction, Truscott defended his stance by providing several evidence to argue. According to Truscott (1996), content and organization of learners' work should not go together with other feedback for grammar correction. His argument is based on three reasons: findings gathered from corrective feedback literature may have been misleading in demonstrating feedback effectiveness, theoretical and practical of grammar correction may be ineffective, and grammar correction may have detrimental effects on learners' language learning development.

To support his reasons, Truscott (1996) first asserts that findings from previous studies do not provide thorough evidence in the development of learners' language because of methodological issues. One of the methodological issues is highlighted in studies like Ashwell, 2000; Fathman & Whalley, 1990; Ferris & Roberts, 2001 (as cited in Truscott, 2007). These studies investigate "learners' success in revising an essay after receiving different types of feedback and they are excluded not only they are short-term in nature, but they also do not offer measure of changes in students' ability to write accurately, i.e their learning" (Truscott, 2007). Furthermore, according to Truscott (2007), studies of learning look at the difference between a measure of accuracy at onetime and a comparable measure done at a later time. Therefore, a writing task which students write with teacher's assistance (the revised essay) is not comparable to the one they write on their own (the original essay). In other words, Truscott (2007) claims that a study with this kind of design does not produce any measure of learning, short-term or otherwise, and the revision studies do not address the question.

Secondly, Truscott (1996) argues that theoretical and practical of grammar correction may be ineffective. From the theoretical perspectives, the interlanguage system is built upon a complex process. That is, by simply providing grammar correction on learners' errors, learning and acquisition cannot be attained through a sheer transfer of knowledge. In addition, Truscott supposes that the existing practice of corrective feedback provision in classrooms does not resolve the issue related to the sequence of grammar acquisition. This is because different learners have different individual performance. Since learners' linguistic development ability progresses at different paces, the practice of providing feedback is viewed as ineffective because it does not facilitate individual language development. Moreover, Truscott (1996) continues his feasibility argument by suggesting that learners who are supplied with grammar correction are likely to demonstrate pseudo-learning which is described as a superficial and possibly a temporary form of knowledge. Truscott presents a valid point that when acquired knowledge disappears over months, it possibly implies that the teaching produces nothing more than pseudo-learning. If corrective feedback resulted in little more than pseudo-learning, learning would be impractical for acquisition.

From the practical perspectives, Truscott (1996) claims that it may be difficult for teachers to recognize all errors committed by students in their written work. The reason being is that it may due to the limitations in grammar knowledge or it may due to the fact that language develops and so does the grammar system. Besides that, corrective feedback is not always consistent because it is time consuming when teachers deal with too many errors. Also, not all error types are in fixed structures at most time. As a result of these inconsistencies, the feedback given is affected. Additionally, Truscott contends that students may find it difficult to comprehend all corrections given. Even if they understand the corrections, they might not be able to recall the information, let alone to use it in subsequent written tasks or utilise it in different contexts.

Finally, Truscott (1996) concedes that grammar correction may have detrimental effects on learners' language learning development. Truscott supports his argument based on previous studies carried out by Polio et al., 1998; Robb, Ross, & Shortreed, 1986; Semke, 1984; and Sheppard, 1992 which include control groups and they are presented with both corrective feedback and revision. Findings of the studies reveal that of the controlled studies that have tested this combination, none found that it helps students write more accurately in future work (Bitchener & Ferris, 2012). It is also found that not only corrective feedback is harmful, but it has also shown absolute gains in the absence of correction. To be more specific, corrected students tend to shorten and simplify their writing, seemingly to avoid contexts in which they might make mistakes.

Error correction has always been conventionally viewed as an essential role in improving accuracy in L2 writing (Ferris & Roberts, 2001 in Corpuz, 2011). In spite of this view, the efficacy of error correction has been debated in the past decade. Some studies (Kepner, 1991; Semke, 1992; Truscott & Hsu, 2008) exhibit results which do not favour the effectiveness of error correction. These results show not only the correction is ineffective, but it is also detrimental to the development of L2 writing accuracy. Nevertheless, there are some studies (Sheen, 2007; Bitchener, 2008) exhibit results which favour the effectiveness of error correction. These results indicate that error correction is important because it is effective and helpful in improving students' accuracy in L2 writing. The next subsection discusses the arguments which are against and for WCF. The arguments are supported with evidence from past studies.

2.7.2. Argument against WCF

Truscott (1996) claims that written error correction on students' work should be abandoned. In other words, "correcting learners' errors in a written composition may enable them to eliminate the errors in a subsequent draft, but has no effect on

grammatical accuracy in a new piece of writing” (Ellis, Sheen & Murakami, 2008, p. 354). Truscott sustains his claim based on Krashen’s Monitor Hypothesis of SLA. According to the hypothesis, comprehensible input is ample for L2 acquisition.

In order to substantiate his claim related to the detrimental effects of error correction, Truscott (1996) elucidates three problems of error correction in SLA theory. To begin with, he states that the fundamental processes of language development have not been understood by many researchers and educators. The reason behind this claim is that Truscott supposes many teachers believe students are able to use the proper structure if their grammatical errors are corrected and correct forms are provided through error correction. The argument to this stereotypical belief is that simple transfer of information from teacher to student through WCF does not necessarily work because the complexities of language development system make providing error correction extremely difficult to practice effectively (Corpuz, 2011, p. 23).

Secondly, Truscott (1996) contends since grammatical rules and features are acquired by L2 learners in a specific order, problems may occur when the sequences of language instruction are incongruous with the learning sequences. According to Corpuz (2011), this claim is supported by Pienemann’s (1984) “teachability hypothesis” which affirms that instruction can only assist language learning if the structure to be taught is acquired in the natural setting. The hypothesis specifically states that error correction has little benefits when teachers correct the errors which students are not yet ready to learn.

Finally, the third problem according to Truscott (*ibid.*) is that some types of teaching or learning strategies may be inconsistent with regard to the complexity of interlanguage development processes. According to Corpuz (2011), Truscott argues that there is still a considerable amount of uncertainty and complexity underlying the process of

interlanguage development. Thus, it is possible that some types of teaching or learning strategies may not have any effect to the actual developing system; hence, students will only acquire useless knowledge of the language.

Besides that, Truscott (1996) supports his claim based on earlier research evidence from Semke (1984), Kepner, 1991 and Shephard, 1992 (as cited in Chandler, 2003) that WCF has little effects or no significant difference in student writing. A 10-week study carried out by Semke (1984) examined written correction on four groups of German students: Group 1 received only comments on content, with no concern for errors; Group 2 received only comments on errors; Group 3 received both types of comments; and Group 4 had their errors pointed out and were expected to make corrections themselves. The results revealed that Group 1 was significantly better on fluency and on a cloze test compared to the other groups; meanwhile, students in Group 3 were significantly inferior to students in Group 1. Overall, the results of this study showed no significant differences among the groups in the accuracy of their writing. Similarly, results of Kepner's (1991, as cited in Sheen, Wright & Moldawa, 2009) study, which compares error corrections and message-related comments on college learners' written Spanish, exhibited that grammar correction showed no significant sign in improving learners' accuracy; hence, Truscott concludes that WCF which centres on grammar is ineffective. Correspondingly, Sheppard (1992, as cited in Sheen et al., 2009, p. 557) carried out a study that investigated the effects of two types of WCF (indirect error coding CF vs. holistic comments in the margins) on students' verb tense, punctuation, and subordination accuracy and the findings of the study revealed the group that received holistic comments outperformed the group that received indirect error coding CF. He further stated that "the indirect coding CF group regressed over time by avoiding the use of complex structures as a result of the WCF; thus, it was concluded that grammar correction had a negative effect" (Sheen et al., 2009, p. 557). Based on the analysis of

studies by Semke (1984), Kepner (1991) and Shephard (1992), Truscott concludes that error correction does not result in students' accuracy performance in writing as there is no strong empirical research evidence (Bitchener et al., 2005, p. 192).

2.7.3 Argument for WCF

Contrary to what Truscott has stated, there are some corrective feedback experts who have produced research evidence supporting WCF benefits. Ferris is one of the proponents who believes in the effectiveness of WCF. According to Ellis et al. (2008), Ferris (1999) contends that if writing teacher provides a clear and consistent error correction, it will facilitate language learning. Ferris reveals that it is impractical to disregard error correction on the whole as it depends on the quality of the correction. Additionally, Ferris (in Bitchener et al., 2005, p.192) claims that Truscott's arguments are premature and overly strong given the rapidly growing research evidence pointing to ways in which effective error correction can and does help at least some student writers, providing it is selective, prioritised and clear.

Another corrective feedback advocates are Bitchener and Knoch (2008). They have examined a number of studies which explore on the efficacy of WCF. Both Bitchener and Knoch divided these into studies with and without a control group. Studies with control groups (Ashwell, 2000; Fathman & Whalley, 1990; Ferris Roberts, 2001; Kepner, 1991; Polio et al., 1998; and Sheen, 2007) unveiled significant improvement on the grammatical accuracy. Such improvement could be seen specifically in the findings from Ashwell (2000), Fathman and Whalley (1990), and Ferris and Roberts (2001). In Ashwell (2000), the findings displayed by all three groups that received form-focused feedback gained accuracy in their text revisions, but findings displayed by the control group did not gain any accuracy. In addition, findings from Fathman and Whalley (1990) showed positive effect on WCF between the three groups that received treatment

with one group that did not. However, some of these studies (e.g. Ashwell, 2000; Fathman & Whalley, 1990; and Ferris & Roberts, 2001) did not take new pieces of writing into consideration. Instead, the effectiveness of WCF was demonstrated on a second draft of the corrected written work.

Taking all the empirical evidence mentioned above into consideration, it is clear that the effectiveness of WCF is still an issue which needs further research. It is also clear that different previous studies produce varying results due to different research designs. Therefore, studies on error correction should be continuously carried out by researchers and educators, notwithstanding the different results. In the context of the present study, this study aims to discover whether different types of feedback influence students' use of the past tenses in writing.

2.8 Conclusion

This chapter presented on the literature review relating to the study of WCF. It began with an introduction to the study of second language acquisition in general and the origins of its studies. The chapter then discussed the early research of corrective feedback in second language acquisition, some of the first general theories in second language acquisition and the roles of WCF and issues related to WCF in language learning. Moreover, it discussed on the theoretical perspective which underpinned the current research and followed by a thorough review on the debates which are against and for WCF. Then, the different types of WCF were discussed. Finally, the past studies on WCF were highlighted. All reviews were clarified by referring to past research. The next chapter will focus on the research design underlining the research method used in the study.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

WCF advocates believe there is room for further research in connection to practical classroom settings. Drawing on the common classroom practices in supplying WCF to the learners, the present study, which observed direct and indirect WCF, strived to improve on the design of the previous research and expand the insights on the effects of these two feedback options on the accuracy use of the past tenses. This chapter describes the research design, participants, target structure, pilot study, data collection procedure and data analysis of the study. It also discusses the data scoring procedures which is related to data analysis used to answer the research questions in this study.

3.1 Research Design

The current study employed a mixed methods research design. A mixed methods research design is described by Creswell (2014) as a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative methods in a single study or a series of studies to understand a research problem. A mixed methods study is carried out when a researcher has both quantitative and qualitative data. Both types of data offer a better understanding of the research problem than either type by itself. Quantitative data such as scores on instruments can allow the researcher to make generalisation of a population. Qualitative data such as open-ended interviews on the other hand, can allow the researcher to have various distinct perspectives on the study and get a complex picture of the situation. Therefore, a mixed methods study was used because the research design is built on the strengths of both quantitative and qualitative data.

In the present study, data gathered from the quantitative data came from quantifiable data (a pre-test and two post-tests) whereby the scores for each test instrument provided statistical information; and data gathered from qualitative investigation which came from the interview sessions offered insights from the students' words. Both methods were used to investigate the differential effects of direct and indirect feedback on the accurate use of the past tenses in learners' written work. The next section outlines the participants of the study.

3.2 Participants

60 Form 2 students from a public secondary school were involved in the current study. The main reason for selecting the Form 2 students is because the participants were not sitting for any major examinations at school. Since the selected school did not practice streaming of students according to academic results; thus, it was assumed that there should not be much difference in terms of the English language performance of students from different classes. In addition, most past studies (Ferris & Roberts, 2001; Bitchener, Young & Cameron, 2005; Bitchener & Knoch, 2008; Bitchener, 2010) focus on participants in colleges. Thus, it is important to study how direct and indirect WCF impact young learners.

All participants were ESL learners who have had English language lessons for approximately 7 years in primary and secondary schools. Moreover, the participants had completed their Form 1 for a year in the secondary school. Throughout their secondary year in English language class, the participants have been exposed to mostly unfocused indirect feedback of which their writing teacher only underlined their errors on the written work. The feedback was also supplied with general comments on the content, mechanics and language use.

One month before the study was carried out, the researcher was introduced to the participants by their writing teacher. The writing teacher taught the two classes which involved in the study. During the first meet up, the participants were randomly assigned to the two treatment groups. Then, the participants were briefed on the study and consent forms were distributed (See **Appendix A**). The participants were also informed that the treatments which they received had no effects on their performance in school as data collection was carried out outside the class hours.

The two classes which were assigned to the researcher consisted of 30 students respectively. The participants can be considered demographically homogenous because they had received similar exposure to the formal English language lesson since they were in primary school and they were all 14-year-old female students. When the participants studied in Form 1, they were exposed to complex sentence constructions which involved the use of the past tenses; hence, this allows the elicitation of the target structure form to be assessed and analysed. The next section describes the target structure.

3.3 Target Structure

In order to measure the effectiveness of WCF, Bitchener (2008) stated that it is important that error categories not be too broadly constituted because if the categories are too broad, it is not possible to determine exactly what an error lies. Therefore, this study focused on one target structure which was a treatable error: the past tenses structure. The explanation on treatable error can be referred to in *Section 2.5.4*. The choice of the target structure in the current study was based on three sources. The first source was taken from the students' writing samples of the descriptive essay. When the students were in Form 1, they were introduced to descriptive writing. They were

required to produce 150 to 200-word descriptive essays. The use of the past tenses was required in writing a descriptive composition as students had to recall past events.

Secondly, based on findings from a number of studies which investigated on error analysis of Malaysian ESL secondary school students' written work, the past tenses structure was found to be among the most common error committed. Findings from the Saadiyah Darus and Kaladevi Subramaniam (2009) study revealed that the most common errors found were verb tense, preposition and subject-verb agreement. In the case of the verb tense in the study, it was reported that students were unaware of the changed rules for tenses application. According to Saadiyah Darus and Kaladevi Subramaniam (2009), "the use of some suffixes like 'ing' and past tense forms showed that students are not aware of the rules on different tenses application and they have already hypothesized that these verbs needed to be used with different tense forms and should not be used in the basic form" (p. 492). In other words, students were not able to use the rules on the grounds that a few verbs composed utilizing different forms of tenses were not composed in the basic type of the verb.

Finally, findings from other WCF studies were also taken into consideration regarding the choice of target structure in the present study. Bitchener et al. (2005) carried out a study which investigated three types of WCF on linguistic errors to determine accuracy performance in new pieces of writing. The types of WCF were direct WCF with conference (Group 1), direct WCF only (Group 2), and no WCF but only feedback on quality and organization of content (Group 3). Participants were required to write a letter to an English-speaking friend living overseas. They were asked to describe their last family event they spent together to their friend. Findings from the Bitchener et al. (2005) study revealed that the most common errors committed by participants were prepositions, past simple tense, and definite article. In the case of the verb tense in this

study, the feedback provided showed a significant effect on the accuracy of the past simple tense in new pieces of writing. It was significant because the use of past tense is governed by sets of rules; thus, it is readily 'treatable'. In other words, "the past simple tense was amenable to written and oral (conference) feedback" (Bitchener et al., 2005, p. 201). Therefore, based on the three sources of reference mentioned earlier, the current study observed the past tenses structure on students' written work.

Apart from receiving feedback in relation to simple past tenses, the participants in the direct and indirect WCF groups also received feedback related to errors such as singular/plural, word form, word choice, punctuation, and mechanics. In view of this, Ellis et al. (2008) assert that providing feedback on all or at least a range of errors in students' writing is considered normal practice because extensive and intensive feedback works better. Finally, van Beuningen et al. (2008) implied that students might get confused when they notice that some of their errors were disregarded. The next section describes the pilot study.

3.4 Pilot Study

Two months prior the actual study, a pilot study was carried out on two Form 2 students whose criteria matched with the participants in the present study. These two students were chosen based on their availability to the researcher. The aim of the pilot study was to test the suitability of the pre-test, immediate post-test and delayed post-test before the actual study was carried out. The Form 2 students were chosen from a public secondary school in Selangor area. They are both female students. They are not included in the actual study in order to avoid sample contamination. The next subsection describes the reliability test carried out during the pilot study.

3.4.1 Reliability Test in the Pilot Study

According to Ho (2006), the reliability of a measuring instrument is defined as its ability to consistently measure the phenomenon it is designed to measure. In other words, reliability is the degree of the consistency or stability of a measuring instrument. Reliability, therefore, refers to test consistency.

External consistency procedures utilize cumulative test results against themselves as a means of verifying the reliability of the measure (Ho, 2006). One of the methods to determine the degree of the test reliability is by an external consistency procedure which is the test-retest method. It is an assessment that involves giving participants the same test on two separate occasions.

Since there were three tests, the two participants took the test in three different days. They were required to write a descriptive essay between 150 to 200 words. Before the pilot study took place, the two participants were informed of the aim of the tests. After the briefing session, 1 hour was allocated for the participants to write a descriptive essay. The participants' written work was then collected and graded. In scoring, each occurrence of the past tense error was counted. For the correct use of words, it was marked as "1" and "0" for the incorrect uses. The marks of the accuracy use of the past tenses then were converted into percentage by dividing the total number of correct uses with the number of total uses. The result of the pilot test is tabulated in **Table 1** below.

Table 1. Test scores in the pilot study.

Participant	Pre-Test	Immediate Post-Test	Delayed Post-Test
1	21.05	35.00	15.45
2	30.43	56.25	23.00

The total scores of the target structure accuracy for both participants were then keyed in to the Statistical Package for the Social Sciences (SPSS) software to generate data for the correlation coefficient. According to Jackson (2009), correlation coefficient is “a measure of the degree of relationship between two variables; it can vary between -1.00 and +1.00” (p. 143). One of the most commonly used correlation coefficient methods from SPSS is the Pearson product moment correlation coefficient. It is usually known as the Pearson correlation. The statistical notation for the Pearson correlation used in the report is represented as *r*. Pearson’s *r* is used for data measured on an interval or ratio scale of measurement. To calculate the *r*-value, raw test scores from the pilot study was used. **Table 2** below shows the *r*-value of the tests.

Table 2. Correlation coefficient measurement of Pearson correlation.

		Pre-Test	Immediate	Delayed
Pre-Test	Pearson	1	1.000**	1.000**
	Correlation			
	Sig. (2-tailed)		.	.
	N	2	2	2
Immediate	Pearson	1.000**	1	1.000**
	Correlation			
	Sig. (2-tailed)	.		.
	N	2	2	2
Delayed	Pearson	1.000**	1.000**	1
	Correlation			
	Sig. (2-tailed)	.	.	
	N	2	2	2

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the guidelines provided by Jackson (2009), if the correlation coefficient ranges from $\pm.70$ to 1.00, the strength of relationship between two variables is considered strong. In the pilot study, the r-value indicated 1.0. This means that the scores for the two participants in every test is reliable. To be more specific, if a participant performed well in the pre-test, he or she would likely to perform similarly well in the immediate post-test and the delayed post-test. On the other hand, if a participant did not perform well in the pre-test, he or she would likely to perform poorly in the immediate post-test and the delayed post-test too. Therefore, the figures provided in **Table 2** showed that the test instruments used in the pilot study were reliable and consistent.

Based on the results of the pilot study, some minor adjustments were made prior to the actual study. The researcher found out that the two participants were confused with one of the elicited words, “pool resources,” which was used in the immediate post-test (See **Appendix C**). The words were omitted as parts of the adjustments. Besides that, the time allocation for the test was decreased to 45 minutes as the two participants in the pilot study finished the test within 45 minutes. The next section describes the procedure of the data collection.

3.5 Data Collection Procedure

With the purpose of investigating the effects of two corrective feedback types on learners’ accurate use of the past tenses, the study employed an experimental approach grounded on Swain’s Output Hypothesis. It involved one independent and one dependent variables. The independent variable in this study was the WCF provided by the researcher. For this study, the two types of WCF were direct WCF (errors committed were underlined and corrected) and indirect WCF (errors committed were coded with error symbols). The dependent variable, on the other hand, refers to the

students' accuracy in their use of past tenses in writing. The scores were measured by taking into account the number of errors made by the students in their writing over a period of 12 weeks. **Figure 1** below showed the flow chart form in order to give a clearer picture on the data collection procedure of the present study.

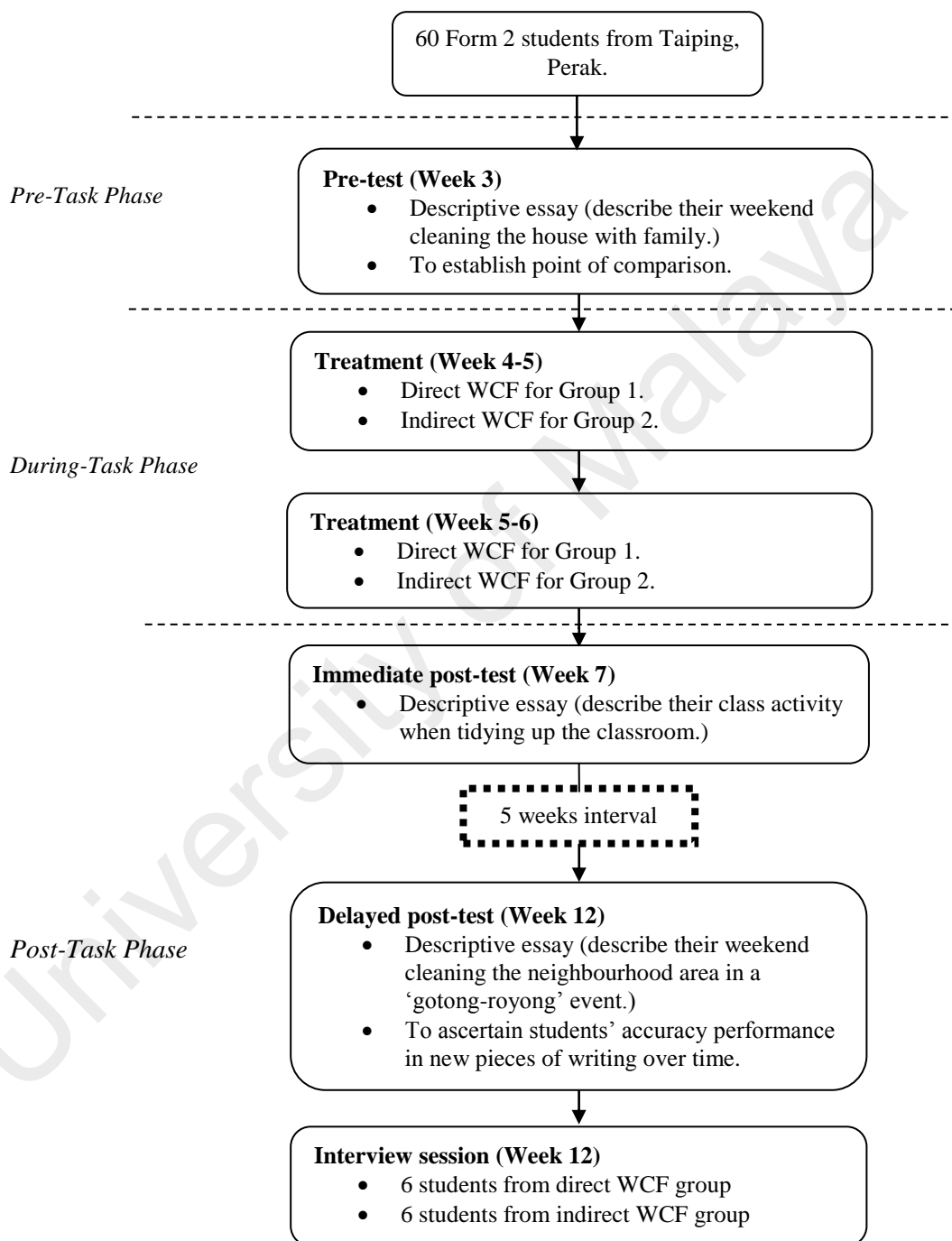


Figure 1. Overview of data collection procedure.

Figure 1 above showed the data collection procedure of this study. The data collection procedure were divided into three phases: the pre-task phase, during-task phase and the post-task phase. The next subsection explains the 3 phases of the data collection procedure.

3.5.1 Pre-Task Phase, During-Task Phase and Post-Task Phase

The mixed methods study was carried out in a secondary school in Taiping, Perak. In the pre-task phase, all of the 60 participants were briefed on the research one month prior. The researcher explained the purpose, procedures of the study and the parts which they would be directly involved. The participants were also given consent forms (See **Appendix A**) during the briefing session. In week 3, the participants sat for the pre-test (See **Appendix D**) which required them to write a 150 to 200-word descriptive essay.

Then, throughout the during-task phase, the participants performed two cycles of written tasks from week 4 to week 6. 45 minutes were allocated for them to complete each written task. The written tasks were designed to elicit the use of the past tenses. It was also designed for the participants to focus on the structure which was emphasized through written feedback. The treatments operated as a learning process because the participants might exhibit the three Output Hypothesis functions: noticing, hypothesis testing, and metalinguistic knowledge. The first treatment group was provided with the direct WCF. Their errors were underlined and corrected directly. The second treatment group was provided with the indirect WCF. Their errors were underlined and marked with symbols which relate to features such as singular/plural, subject-verb agreement and wrong verb form. These symbols were adapted from Azar's (1992) guide for correcting writing errors (See **Appendix B**). 30 minutes were allocated for the participants to complete their written tasks in the treatment sessions.

Finally, at the post-task phase, the immediate post-test (See **Appendix E**) was administered immediately after the participants had done their second treatment. After 5 weeks of interval, delayed post-test (See **Appendix F**) was carried out. The delayed post-test was carried out five weeks later for the purpose of measuring retained knowledge. 12 participants were then selected for the interview sessions in the final week of the research. 6 participants were selected from the direct WCF group and another 6 participants were chosen from the indirect WCF group. Each interview session lasted approximately 10 to 15 minutes. The next subsection describes how the direct and indirect feedback was operationalised during the treatment sessions.

3.5.2 Operationalisations of Direct and Indirect Feedback

The treatment instruments were classified into two types: direct WCF and indirect WCF. The two treatment instruments were administered during the two cycles of written tasks. Both direct WCF and indirect WCF used in the present study were based on the WCF typology defined by Bitchener and Knoch (2008). The descriptions and examples of the two operationalised feedback types are explained below:

Direct WCF is described as the provision of the correct linguistic form or structure by the teacher to the student above or near the linguistic error. It may include the crossing out of an unnecessary word / phrase / morpheme, the insertion of a missing word / phrase / morpheme, or the provision of the correct form or structure. In the present study, each error was underlined and correction was provided on top of the errors committed. In line with the feedback the participants were familiar with when they had an English language lesson with their writing teacher, the operationalised direct feedback also incorporated unfocused feedback which covered not only the linguistic aspect (past tenses, subject-verb agreement), but also other aspects like vocabulary (word choice) and mechanics (spelling, capitalization). For example,

3.5.3 Treatment Sessions

The treatment instruments were conducted in three sessions. **Figure 2** below elucidates the sequence of the activities carried out during the treatment sessions.

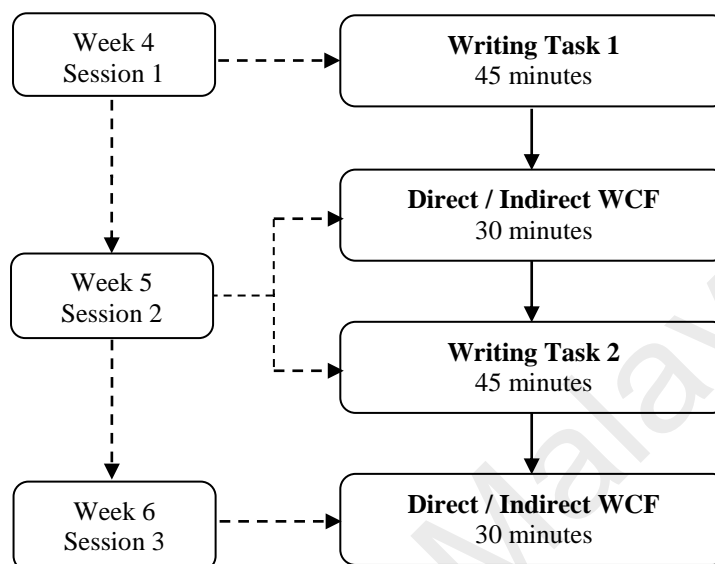


Figure 2. Sequence of treatment sessions.

In the first session, the participants completed a writing task, whereas in the second session, the participants engaged in written feedback provided. Then, the participants completed another writing task in the same session. They received their final written feedback on the third session. Each written task required participants to describe a past event between 150 – 200 words. The subsequent section describes the written tasks in the treatment sessions and how they were executed.

3.5.4 The Written Tasks in the Treatment Sessions

The participants were required to write two written tasks, starting from week 4 and ended in week 5. In week 4, the first written task (See **Appendix G**) which was in a form of a descriptive essay was provided to the participants. The essay contained a series of visual prompt and elicited words. 5 minutes were allocated to the participants to look at the pictures and they were allowed to ask questions if they had trouble

understanding the instruction. After that, they were given 40 minutes to complete the task.

When writing the task, the participants were encouraged to include an introductory paragraph, two or three body paragraphs and a concluding paragraph. The participants' written tasks were collected after 40 minutes and the scripts were marked by the researcher to calculate the number of errors of the target structure.

In week 5, the first written tasks were returned to the participants. The written tasks were marked with direct and indirect WCF. The participants were asked to work on their correction in discretion. The participants who received indirect WCF were briefed on the editing symbols which they found on their first written task and they were given a copy of guideline to the editing symbols for reference. All of the participants were given a piece of A4 paper and 30 minutes were allocated for them to do their correction. After they had completed the correction, their written work was collected. Then, 45 minutes were allocated to the participants to write the second written task (See **Appendix H**) which included a different series of visual prompt and elicited words. The feedback for the second written task was carried out in week 6 where the participants underwent the same procedure. The next subsection explains the scoring procedure for the written tasks.

3.5.5 Scoring Procedure for the Written Tasks

Sentences that contain the usage of the past tenses were identified in every essay. In this study, accuracy is described as the correct use of the past tenses features in the appropriate language contexts. The participants' written work was evaluated based on the calculation method used in the study conducted by Sheen et al. (2009). Each occurrence of the past tense error was counted. For the correct use of words, it was

marked as “1” and “0” for the incorrect uses. The marks then were converted into the percentage by dividing the total number of correct uses with the number of total uses. The percentages then were keyed in to the SPSS to generate data for the statistical inferential analysis. Below is the calculation formula:

$$\text{Accuracy score} = \frac{\text{Total number of correct past tenses uses}}{\text{Total number of correct and incorrect uses of past tenses}} \times 100$$

A score of “1” was awarded to the accurate use of the past tenses. For example, if a student wrote “*Last holiday, my family and I visited the historical city of Melaka. We went there by car. My father drove the car from Taiping to Bandar Melaka,*” the correct uses of the past tenses, which are “...*my family and I visited...*,” “*We went there...*,” and “*My father drove...*,” were underlined and a score of “1” was written above the words or phrases because the verbs “visited,” “went,” and “drove” were used accurately to signify changes of tense forms. Below is an example of the scoring procedure:

11

“Last holiday, my family and I visited the historical city of Melaka. We went there by car. My father drove the car from Taiping to Bandar Melaka.”

However, the score “0” was awarded if the student used the past tenses forms incorrectly. An example is shown below:

01

“Last holiday, my family and I were visiting the historical city of Melaka. We went there by car. My father drives the car from Taiping to Bandar Melaka.”

Based on the example above, if the total number of the past tenses occurrence was 10 for instance and the correct uses of the past tenses was 1, hence, the calculation would be as follow:

$$\text{Accuracy score} = \frac{\text{Total number of correct past tenses uses}}{\text{Total number of correct and incorrect uses of past tenses}} \times 100$$

$$\text{Accuracy score} = \frac{1}{10} \times 100 = 10\%$$

The percentage of 10% gained for the use of past tenses would then be keyed in into the SPSS for statistical calculation. The conditions of which “0” was given are based on the inappropriate uses of the past tenses and the verb phrase by Dulay, Burt & Krashen (1982) and they are described below:

(a) Regular past tense

(i) Omission of –ed, for example,

“We play a lot of games yesterday.”

It should be *“We played a lot of games yesterday.”*

(ii) Adding –ed to past already form, for example,

“Last night, he calleded her.”

It should be *“Last night, he called her.”*

(b) Irregular past tense

(i) Regularization by adding –ed, for example,

“He putted the cookie on that table a while ago.”

It should be *“He put the cookie on that table a while ago.”*

(ii) Substitution of simple non-past, for example,

“He fall into the well.”

It should be “*He fell into the well.*”

(iii) Substitution of past participle, for example,

“*I been near to him.*”

It should be “*I had been near to him.*”

(c) Past participle incorrect

(i) Omission of –ed, for example,

“*He was call.*”

It should be “*He was called.*”

(d) Omission of verb

(i) Omission of main verb, for example,

“*He into the well.*”

It should be “*He fell into the well.*”

(ii) Omission of *to be*, for example,

“*She here last night.*”

It should be “*She was here last night.*”

(e) Use of progressive tense

(i) Omission of *be*, for example,

“*He washing the dishes while his brother cleaning the table.*”

It should be “*He was washing the dishes while his brother was cleaning the table.*”

(ii) Replacement of –ing by the simple verb form, for example,

“*My mother was cook dinner.*”

It should be “*My mother was cooking dinner.*”

(iii) Substitution of the progressive for the simple past, for example,

“*Then the man shooting the bird with a gun.*”

It should be “*Then the man shot the bird with a gun.*”

(f) Agreement of subject and verb

(i) Disagreement of subject and verb person, for example,

“You be friends.”

It should be *“You were friends.”*

(ii) Disagreement of subject and number, for example,

“The cats was chasing the mouse.”

It should be *“The cats were chasing the mouse.”*

(iii) Disagreement of subject and tense, for example,

“I didn’t know what it is.”

It should be *“I didn’t know what it was.”*

3.6 Data Analysis

The present study involved analysis on the quantitative and qualitative components of the investigation. **Table 3** below explains the plan to analyse the data collected according to the corresponding research questions.

Table 3. Planning of data analysis of the study.

Research Questions	Data involved	Procedure in analysing data
1. To what extent do direct and indirect WCF on accuracy performance in students' use of the past tenses errors varies over time?	- Students' drafts from the immediate post-test and the delayed post-test	- Each occurrence of the past tense error was counted. - For the correct use of words, it was be marked as "1" and "0" for the incorrect uses. - Results from the immediate post-test and the delayed post-test drafts were compared.
2. Is there any difference in students' accuracy in performance in the use of the past tenses between ESL students that receive direct WCF and indirect WCF?	- Students' drafts from direct WCF and indirect WCF groups	- Each occurrence of the past tense error was be counted. - For the correct use of words, it was marked as "1" and "0" for the incorrect uses. - Results from the direct WCF and indirect WCF groups were compared.
3. What are the factors that influence the performance of the students in the use of past tenses in relation to direct WCF and indirect WCF?	- 6 students from direct WCF group - 6 students from indirect WCF group	- Face-to-face interview was involved. - It was conducted with 6 students from each group.

3.6.1 Research Question 1

To what extent do direct and indirect WCF on accuracy performance in students' use of the past tenses errors varies over time?

To answer the first research question, the participants' written work in the pre-test, immediate post-test and delayed post-test was evaluated based on the calculation method used in the study conducted by Sheen et al. (2009). Each occurrence of the past tense error was counted. For the correct use of words, it was marked as "1" and "0" for the incorrect uses. The marks then were converted into the percentage by dividing the total number of correct uses with the number of total uses. The percentages then were keyed in to SPSS software to generate data for the statistical inferential analysis.

In comparing the performance of students in direct and indirect WCF groups, first, normality test was carried out to ensure that the samples in the two groups were homogenous and normally distributed. Since the first research question attempted to determine the extent of the two feedback types on accuracy performance in participants' use of the past tenses over time, paired sample t-test was administered to compare the performance of participants. According to Larson-Hall (2010), a paired-samples t-test is used when the people who are tested are the same, so the two mean scores cannot be independent of each other. In other words, it is used in repeated measures or correlated groups design, in which each subject is tested twice on the same variable (Ho, 2006, pg. 46).

3.6.2 Research Question 2

Is there any difference in students' accuracy in performance in the use of the past tenses between ESL students that receive direct WCF and indirect WCF?

The second research question attempted to ascertain if there was any difference in participants' accuracy performance in the use of the past tenses between direct and indirect WCF groups. Split-plot analysis of variance (SPANOVA) was used to determine students' accuracy performance in the use of the past tenses. SPANOVA is also known as mixed between-within subjects analysis of variance (Tabachnick & Fidell, 2007). In other words, SPANOVA is an analysis of variance design which combines both between-subjects and within-subjects analysis of variance designs. Between-subjects analysis of variance design is used to compare two or more groups in the same analysis. Within-subjects analysis of variance design on the other hand, is used when one group of participants is exposed to two or more condition. Within-subjects analysis of variance is also known as repeated measures design. Thus, SPANOVA is used to test for mean differences between two or more independent groups whilst subjecting participants to repeated measures.

In the current study, between-subjects analysis of variance was used to compare the effects of direct WCF and indirect WCF on students' use of past tenses based on results from immediate post-test and delayed post-test. Meanwhile, within-subjects analysis of variance was used to determine the improvement in students' accuracy based on the results of immediate post-test and delayed post-test in the two groups.

3.6.3 Research Question 3

What are the factors that influence the performance of the students in the use of past tenses in relation to direct WCF and indirect WCF?

The third research question attempted to find out the factors that influence the participants' performance in the use of past tenses in relation to direct and indirect WCF. For this reason, the study employed a semi-structured interview with selected participants from both direct and indirect WCF groups. According to Mackey & Gass (2005), "a semi-structured interview uses a written list of questions as a guide and is less rigid because the researcher has the freedom to digress and probe for more information if initial answers are vague, incomplete, off-topic, or not specific enough" (p. 173). Briefly, interviews are interactive because the researcher is able to explore phenomena which are not easily noticeable, like participants' self-reported perceptions and attitudes.

On the subject of participants, the selection was chosen according to their performance in the immediate post-test and delayed post-test. The selection of the participants' performance was based on those who had performed well, who demonstrated no progress and who showed a decline in the performance in both post-tests. In regards to these criteria, six participants from each direct and indirect groups were chosen for the interview to determine the factors that may affect their performance on the accurate use of the target structure.

The interview was conducted in week 12, which was on the following week after the delayed post-test was carried out. Each interview session lasted for 10 minutes to 15 minutes. All of the participants gave their consent for the sessions to be recorded. Four open ended questions were used to elicit insight about factors that improved students'

accuracy in writing and students' perceptions on the types of feedback they received.

The interview questions consisted of:

1. What are the problems you have to cope when you receive correction based on the error symbols or when your errors are corrected directly? (direct and indirect WCF)
2. How does corrective feedback help you in your writing? (direct and indirect WCF)
3. What did you do when you read your work marked with symbols? (indirect WCF only)
4. Will you recommend this correction to be practised by teacher? Why? Why not? (direct and indirect WCF)

From the students' responses, the researcher attempted to identify reasons that might explain factors that affected their accuracy in the past tenses use, which resulted from direct WCF and indirect WCF. In order to analyse the interview data, a thematic analysis approach was employed. A thematic analysis approach is a method for identifying, analysing, and reporting patterns (i.e. themes) within data (Braun & Clarke, 2006). By using this approach, data would be organized minimally and described the data set in detail. In the current study, the transcribe data was analysed thematically by hand. According to Creswell (2014), the hand analysis of qualitative data means that researchers read the data, mark it by hand, and divide it into parts. By doing this, the researcher could easily keep track of files and locate text passages.

Furthermore, thematic analysis was employed because the approach works with a wide range of research questions, especially when the research questions target to find out about people's experiences or understandings about the representation and construction of specific occurrences in particular contexts. Braun & Clarke (2006) further stated that thematic analysis is suited to analyse different types of data ranging from secondary sources like media to transcripts of interviews.

To analyse the data for the interview, Braun & Clarke (2006) suggested a six-phase model which is a recursive process. In other words, the model is not a linear model as it develops over time. In determining the themes in the data, a researcher can move back and forth as needed throughout the phases. **Figure 3** below explains the six phases of thematic analysis as suggested by Braun & Clarke (2006).

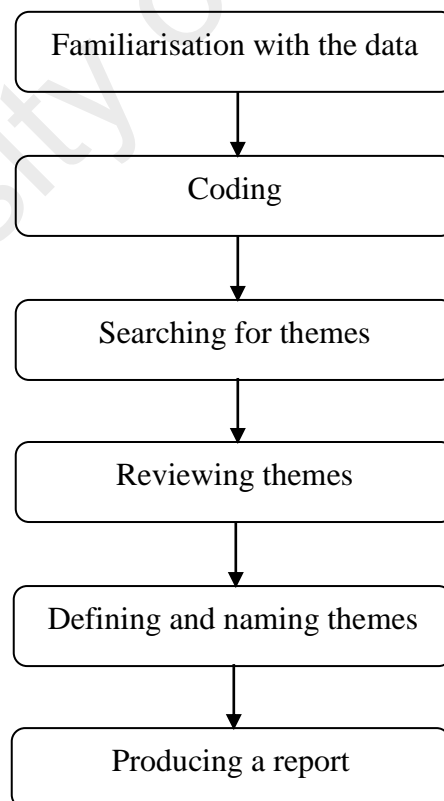


Figure 3. The six phases of thematic analysis.

Figure 3 above is an outline to guide the researcher through the six phases of analysis the interview data. The first phase, familiarisation with the data, is common to all types of qualitative analysis. It is very important for the researcher to engage and get familiar with data. Since the interview data was verbal data, it needed to be transcribed into written form in order to carry out a thematic analysis. To be familiar with the data, the researcher was required to read and reread the transcribed data. Even though the process of reading and rereading could be time-consuming, Braun and Clarke (2006) emphasized that the step should not be skipped as it provided the bedrock for the rest of the analysis.

The second phase is coding. Another common phase, coding required the researcher to generate preliminary list of ideas about what was in the data and what was interesting about them. Coding is not a method of reducing the data, but it is an analytic process where it captures a semantic and conceptual reading of the data. One way of coding extracts which the researcher chose in the present study was to code manually. The researcher coded the data by writing notes on the texts and using highlighters to indicate potential patterns. Then, the codes were identified and matched up with data extracts that demonstrated the code.

The third phase is searching for themes. This phase involves sorting different codes into potential themes and collecting all pertinent coded data extracts within the identified themes. To search for themes, the researcher used a visual representation such as tables to sort the different codes into themes. With the help from the visual representations, the researcher then started to find out the relationship between the codes, between themes, and between different levels of themes.

The fourth phase is reviewing the themes. This phase includes two levels of reviewing and refining the themes. Level one encompasses reviewing themes at coded data extracts level. The researcher was required to read all the collected extracts for each theme and consider whether the extracts appeared to form a coherent pattern. If the themes appeared to be coherent, the researcher then moved on to the second level of the phase. If the themes did not fit, the researcher needed to consider if the theme itself is problematic, or some of the data extracts within it did not fit. Level two, on the other hand, involves a similar process but it is related to the entire data set. In level two, the researcher considered the validity of individual themes relating to the data set. The accurate representation of the themes depended on the researcher's theoretical and analytic approach.

The fifth phase is defining and naming themes. In this phase, the essence of each theme was identified and the aspect which the theme captured was determined. To be specific, the researcher was required to define and refine the themes which would be presented for analysis, and analyse the data within them.

Lastly, the sixth phase is producing a report. The sixth phase of thematic analysis involves final analysis and write-up of the report. At this final phase, the researcher provided a succinct, clear, logical, non-repetitive, and interesting account of the story the data had within and across themes. Sufficient evidence of the themes within the data was also provided in order to demonstrate the prevalence of the theme.

3.7 Conclusion

This chapter has presented the descriptions of the methods used in the current study. The descriptions include the design of the study, the participants involved, data collection procedure and data analysis. The rationale of utilizing the methods and choosing the target structures were also explained. The next chapter will describe and discuss the results obtain from the data collected.

University of Malaya

CHAPTER FOUR

RESULTS AND FINDINGS

4.0 Introduction

The aim of the present study is to investigate the effects of direct and indirect written corrective feedback on ESL students' use of past tenses. This chapter presents the results of the data analysis which is reported in accordance with the research questions. There are two parts in this chapter. The first part discusses the analysis of the quantitative data which involves the first research question and the second research question. Meanwhile, the second part discusses the analysis of the qualitative data which is related to the third research question.

4.1 Analysis of Quantitative Data

In this study, the quantitative data involves students' written work test scores. There were a total of three sets of test scores gathered to answer the first research question. A pre-test (prior to the treatment), an immediate post-test (immediately after the second treatment session) and a delayed post-test (after a 5-week interval) were carried out. To answer the first research question, the descriptive and inferential statistics were administered to interpret the written work test scores. To analyse the data, SPSS version 23 was used. The next subsection describes the analysis of the data beginning with normality test.

4.1.1 Normality Test

Normality of data is important in inferential statistics. It is important because it determines which type of statistical test that needs to be carried out in a study. According to Pallant (2007), since most of the statistical tests depend on the assumption

of normality; thus, normality test must be administered. **Table 4** below shows the results of the normality test of the current study.

Table 4. Results of skewness and kurtosis in normality test.

	Group (n=60)		Statistic	Std. Error
Pre-Test	G1	Skewness	.815	.427
		Kurtosis	-.488	.833
	G2	Skewness	.747	.427
		Kurtosis	.092	.833
Immediate Post-Test	G1	Skewness	.518	.427
		Kurtosis	-.659	.833
	G2	Skewness	-.016	.427
		Kurtosis	-.661	.833
Delayed Post-Test	G1	Skewness	.265	.427
		Kurtosis	-.889	.833
	G2	Skewness	.115	.427
		Kurtosis	-.977	.833

One of the ways to identify the normality of data is through skewness and kurtosis statistics. The skewness value for Group 1 (direct WCF group) in the pre-test was 0.815, immediate post-test was 0.518 and delayed post-test was 0.265. Meanwhile, the kurtosis value in the pre-test was -0.488, immediate post-test was -0.659 and delayed post-test was -0.889. As of the skewness value for Group 2 (indirect WCF group) in the pre-test, the value was 0.747, immediate post-test was -0.16 and delayed post-test was 0.115. Meanwhile, the kurtosis value for Group 2 in the pre-test was 0.092, immediate post-test was -0.661 and delayed post-test was -0.977. According to Chua (2012), for a data to be normally distributed, the skewness and kurtosis values should be in the range of -1.96 to +1.96. Referring to **Table 4**, the skewness and kurtosis values were in between ± 1.96 . In this case, the distribution of data was normal in the present study. When data are normally distributed, parametric tests can be used to analyse the quantitative data. According to Pallant (2007), parametric tests make assumptions about the population

from which the sample has been drawn. The next section discusses the parametric test used to answer the first research question.

4.2 Analysis of Research Question 1

Is there any difference in students' accuracy in performance in the use of the past tenses between ESL students that receive direct WCF and indirect WCF?

To answer the first research question, one of the parametric tests was administered, which was the paired-samples t-test. According to Chua (2013), a paired-samples t-test is used when two sets of data are obtained from the same subject group (one sample) at two different levels. The reason of administering the paired-samples t-test is because it can determine if there is a difference between the means of both sets of data obtained from the pre-test and two post-tests. **Table 5** below shows the mean scores of the direct and indirect WCF groups.

Table 5. The mean scores of the direct and indirect WCF groups.

		G1 (direct WCF group)			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	24.6607	30	18.50171	3.37793
	Immediate Post-Test	40.0440	30	20.82303	3.80175
Pair 2	Immediate Post-Test	40.0440	30	20.82303	3.80175
	Delayed Post-Test	41.3227	30	24.56006	4.48403
Pair 3	Pre-Test	24.6607	30	18.50171	3.37793
	Delayed Post-Test	41.3227	30	24.56006	4.48403

		G2 (indirect WCF group)			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	32.4400	30	20.31873	3.70968
	Immediate Post-Test	49.2730	30	22.09253	4.03353
Pair 2	Immediate Post-Test	49.2730	30	22.09253	4.03353
	Delayed Post-Test	45.6043	30	22.82539	4.16733
Pair 3	Pre-Test	32.4400	30	20.31873	3.70968
	Delayed Post-Test	45.6043	30	22.82539	4.16733

The mean values in Group 1 (direct WCF) showed significantly that direct WCF improved the accuracy in the use of the past tenses from the pre-test (M=24.66) to the immediate post-test (M=40.04) and the delayed post-test (M=41.32). Similarly, the mean values in Group 2 (indirect WCF) indicated that indirect WCF improve significantly the accuracy use of the past tenses from the pre-test (M=32.44) to the immediate post-test (M=49.27) only. However, the mean value decreased from the immediate post-test (M=49.27) to the delayed post-test (M=45.60). After observing the difference between the scores means of both sets of data, the p value from the results of paired samples t-test was observed. According to Pallant (2007), if the p value is less than 0.05 (e.g., 0.04, 0.01, 0.001), the research result can be concluded that there is a significant difference between the two scores. The p values for both sets of data are shown as below.

Table 6. The results of the paired-samples t-test for direct and indirect WCF groups.

		G1 (direct WCF group)							
		Paired Differences							
						95% Confidence Interval of the Difference			
		Mean	Std. Deviation	Std. Error	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pre-Test - Immediate Post-Test	-15.38333	18.79749	3.43194	-22.40243	-8.36424	-4.482	29	.000
Pair 2	Immediate Post-Test - Delayed Post-Test	-1.27867	18.43113	3.36505	-8.16097	5.60363	-.380	29	.707
Pair 3	Pre-Test - Delayed Post-Test	-16.66200	18.15064	3.31384	-23.43956	-9.88444	-5.028	29	.000

		G2 (indirect WCF group)							
		Paired Differences							
						95% Confidence Interval of the Difference			
		Mean	Std. Deviation	Std. Error	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pre-Test - Immediate Post-Test	-16.83300	21.64086	3.95106	-24.91383	-8.75217	4.260	29	.000
Pair 2	Immediate Post-Test - Delayed Post-Test	3.66867	14.68248	2.68064	-1.81386	9.15120	1.369	29	.182
Pair 3	Pre-Test - Delayed Post-Test	-13.16433	19.02354	3.47321	-20.26784	-6.06083	-3.790	29	.001

Referring to the results in **Table 6**, the paired-samples t-test showed that the research result in Group 1 (direct WCF) was significant between the pre-test and the immediate post-test ($t = -4.482$, $df = 29$, $p < 0.05$) and between the pre-test and the delayed post-test ($t = -5.028$, $df = 29$, $p < 0.05$). However, the result from the analysis indicated that there was no significant difference between the immediate post-test and the delayed post-test ($t = -0.380$, $df = 29$, $p > 0.05$). The results showed that the score means of Group 1 (direct WCF) continued to rise reaching significance in the delayed post-test. This means that students in Group 1 (direct WCF) managed to retain their accuracy performance since significant result was achieved in the delayed post-test compared to the score means in the pre-test. It is possible that the results showed no significant difference between the immediate post-test and the delayed post-test because there was no treatment given during the 5-week interval.

In the case of Group 2 (indirect WCF), the research result was significant between the pre-test and the immediate post-test ($t = -4.260$, $df = 29$, $p < 0.05$) and between the pre-test and the delayed post-test ($t = -3.790$, $df = 29$, $p < 0.05$). Conversely, the research result showed no significant difference between the immediate post-test and the delayed post-test ($t = 1.369$, $df = 29$, $p > 0.05$) because there was no intervention during the 5-week interval. Likewise, this means that the participants in Group 2 (indirect WCF) were able to do equally well in the delayed post-test.

Similar results were also found in other studies which proved the facilitative effects of WCF when it concerns the accuracy gain in a linguistic form. One of the studies is the Bitchener & Knoch (2010) study. Using a pre-test–immediate post-test–delayed post-test design, the Bitchener & Knoch (2010) study compared the effects of two different types of direct WCF (i.e. written meta; written meta and form focused) and indirect WCF (i.e. circle) on the accuracy use of the English articles. The results of the study

demonstrated a consistent improvement in the accurate use of articles in written task from the pre-test to the immediate post-test and delayed post-test. However, the group that received indirect WCF showed a slight decrease in terms of accuracy. It seemed that the direct WCF group had more benefits compared to the indirect WCF group because the former received metalinguistic explanation as a part of the feedback.

4.3 Analysis of Research Question 2

To what extent do direct and indirect WCF on accuracy performance in students' use of the past tenses varies over time?

To answer the second research question, SPANOVA was administered. SPANOVA was used to test whether there were main effects for the two independent variables (i.e. direct and indirect WCF) and whether the interaction between these two variables was significant. In the case of the present study, the analysis would tell whether there was a change in the use of past tenses accuracy scores over time (main effect for time). Also, it would compare the two interventions (direct WCF and indirect WCF) in terms of their effectiveness in improving the use of the past tenses accuracy (main effect for group). Finally, it would tell whether the change in the past tenses accuracy scores over time was different for the two groups (interaction effect).

Before assessing the interaction effect and the main effects, there is a need to check on the assumptions. These assumptions can be observed from Levene's Test of Equality of Error Variances and Box's Test of Equality of Covariance Matrices. According to Pallant (2007), checking for assumptions is necessary in order to see if the assumption of homogeneity of variances is violated. To check for assumptions, first, Levene's Test of Equality of Error Variances was observed. If the Sig. value is bigger than 0.05, the

value for the variable can be considered as non-significant. **Table 7** below shows the results of Levene's Test.

Table 7. Levene's Test of equality of error variances.

	F	df1	df2	Sig.
Pre-Test	.233	1	58	.631
Immediate Post-Test	.086	1	58	.770
Delayed Post-Test	.223	1	58	.638

From the results in **Table 7**, the Sig. values for the pre-test, immediate post-test and delayed post-test were 0.631, 0.770, and 0.638 respectively. Since the Sig. values for all three variables were bigger than 0.05, they were considered as non-significant. The next stage is to check Box's Test of Equality of Covariance Matrices. Pallant (2007) explained that if the Sig. value in Box's Test is bigger than 0.001, the assumption is not violated. **Table 8** below shows the results of the Box's Test.

Table 8. Box's Test of equality of covariance matrices.

Box's M	3.027
F	.476
df1	6
df2	24373.132
Sig.	.827

The results in **Table 8** showed that the Sig. value was 0.827. As mentioned by Pallant (2007), if the Sig. value for the variable in Levene's Test is greater than 0.05 and the Sig. value in Box's Test is bigger than 0.001, the discussion on the interaction effect and main effects can be proceeded. The next subsection discusses on the interaction effect.

4.3.1 Interaction Effect

It is necessary to assess the interaction effect before the main effects (within-subjects effect and between-subjects effect). This is because the results from the interaction effect influence the ways a researcher interpret the main effects (Pallant, 2007). The interaction effect for the direct WCF and indirect WCF groups was observed to determine whether the two groups undergo same changes in scores over time. The most commonly reported statistic for the interaction effect according to Pallant (2007) is Wilks' Lambda. **Table 9** below shows the reported statistic (labelled 'Sig.')

for the interaction effect.

University of Malaysia

Table 9. Interaction effect.

Effect	Value	F	Hypothesis		Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^c	
			df	Error df					
Time * Group	Pillai's Trace	.024	.712 ^b	2.000	57.000	.495	.024	1.424	.165
	Wilks' Lambda	.976	.712 ^b	2.000	57.000	.495	.024	1.424	.165
	Hotelling's Trace	.025	.712 ^b	2.000	57.000	.495	.024	1.424	.165
	Roy's Largest Root	.025	.712 ^b	2.000	57.000	.495	.024	1.424	.165

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The Wilks' Lambda in **Table 9** showed that the interaction effect was not statistically significant because the Sig. level for Wilks' Lambda was 0.495, which was greater than the alpha level (i.e significance level) of 0.05. Since the interaction effect was not statistically significant between time and group, this means that both direct WCF students and indirect WCF students reacted in the same way to the WCF provided. As recommended by Pallant (2007), if the interaction effect is not significant, the researcher can move on and assess the main effects for each independent variable. The next subsection discusses the main effects which are within-subjects effect and between-subjects effect.

4.3.2 Within-Subjects Effect

The results of within-subjects effect determined whether there was a change statistically in written test scores in the same group across the three different time periods. The Wilks' Lambda statistics is observed for the purpose of reporting the within-subjects effect as mentioned by Pallant (2007). The result of within-subjects effect is shown below in **Table 10**.

Table 10. Within-subjects effect.

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Paramete r	Observ ed Power ^c
Time Pillai's Trace	.446	22.987 ^b	2.000	57.000	.000	.446	45.975	1.000
Wilks' Lambda	.554	22.987 ^b	2.000	57.000	.000	.446	45.975	1.000
Hotelling's Trace	.807	22.987 ^b	2.000	57.000	.000	.446	45.975	1.000
Roy's Largest Root	.807	22.987 ^b	2.000	57.000	.000	.446	45.975	1.000

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In **Table 10**, the value for Wilks' Lambda for time was 0.554, with a Sig. value of 0.000, which really means $p < 0.0005$. Since the p value was less than 0.05, it can be concluded that there was a statistically significant effect for time. Even though the effect time was reported statistically significant (i.e. not likely to have occurred by chance), this does not mean the difference has any practical or theoretical significance. Pallant (2007) emphasized that the probability values might not inform researchers the degree to which the two variables are associated with one another. Pallant (2007) further stated that with large samples, even very small differences between groups can become statistically significant.

One way to assess the importance of finding is to calculate the strength of association (i.e. the effect size) between the two variables. The most commonly observed value to compare the effect size between the two variables is partial eta squared. According to Pallant (2007), partial eta squared effect size statistics indicate the proportion of variance of the dependent variable that is explained by the independent variable. To compare the effect size, guidelines proposed by Cohen (1998, as cited in Pallant, 2007) were used: 0.01 = small effect, 0.06 = moderate effect, and 0.14 = large effect. Referring to **Table 10**, the value for within-subjects effect in partial eta squared was 0.446. This suggests a very large effect size. Hence, it can be concluded that the within-subjects effect of the current study in terms of effect for time was statistically significant because both direct and indirect groups performed statistically significantly weaker on the pre-test; meanwhile the effect size was large because there were large differences between means of the two groups.

In line with this present study, findings from the Bitchener & Knoch (2009) study revealed the same result. Bitchener & Knoch (2009) investigated the effectiveness of different types of WCF: direct WCF, written and oral meta-linguistic explanation; direct WCF and written meta-linguistic explanation; and direct WCF only. Unlike the present study which used SPANOVA to measure the within-subjects effect, the Bitchener & Knoch (2009) study used two-way ANNOVA to measure the effect. It was revealed that the effect for time was statistically significant because all three treatment groups performed statistically significant weaker on the pre-test too. However, the Bitchener & Knoch (2009) study did not report on the effect size. The next subsection discusses the between-subjects effect.

4.3.3 Between-Subjects Effect

The between-subjects effect presents the effectiveness of direct WCF and indirect WCF in improving the use of the past tenses accuracy. The between-subjects effect is presented in **Table 11** below.

Table 11. Between-subjects effect.

Source	Type III		Mean Square	F	Sig.	Partial		Observed Power ^a
	Sum of Squares	df				Eta Squared	Noncent. Parameter	
Intercept	272248.667	1	272248.667	257.859	.000	.816	257.859	1.000
Group	2266.320	1	2266.320	2.147	.148	.036	2.147	.302
Error	61236.564	58	1055.803					

a. Computed using alpha = .05

The Sig. value (labelled ‘Group’) as shown in **Table 11** was 0.148. This was more than the alpha level, 0.05. The main effect of group was not significant. As of the partial eta square, the value was 0.036. This indicated that the effect size for group was small and did not reach statistical significance. Hence, it can be concluded that there was no significant difference in the learners’ use of the past tenses between direct WCF group

and indirect WCF group. In other words, direct WCF was just as effective as indirect WCF. It was believed that the phenomenon occurred because participants lacked in time and practice in the treatment session, which started in Week 4 and ended in Week 6.

Similar findings were also reported in the Bitchener & Knoch (2009) study. The observable differences in the effect for the three groups (direct WCF, written and oral meta-linguistic explanation; direct WCF and written meta-linguistic explanation; and direct WCF only) in the three post-tests were not statistically different. The next subsection discusses the phenomenon with the profile plots. Profile plots are used because they provide convenient graphical summary of the data.

4.3.4 Profile Plots

In general, there was no significant difference in the between-subjects effect. The discussion on the profile plots of the written test scores offered a comparison of the test scores of Group 1 (direct WCF group) and Group 2 (indirect WCF group) in three periods of time. **Figure 4** below shows the profile plots of written test scores against three time periods of the two groups.

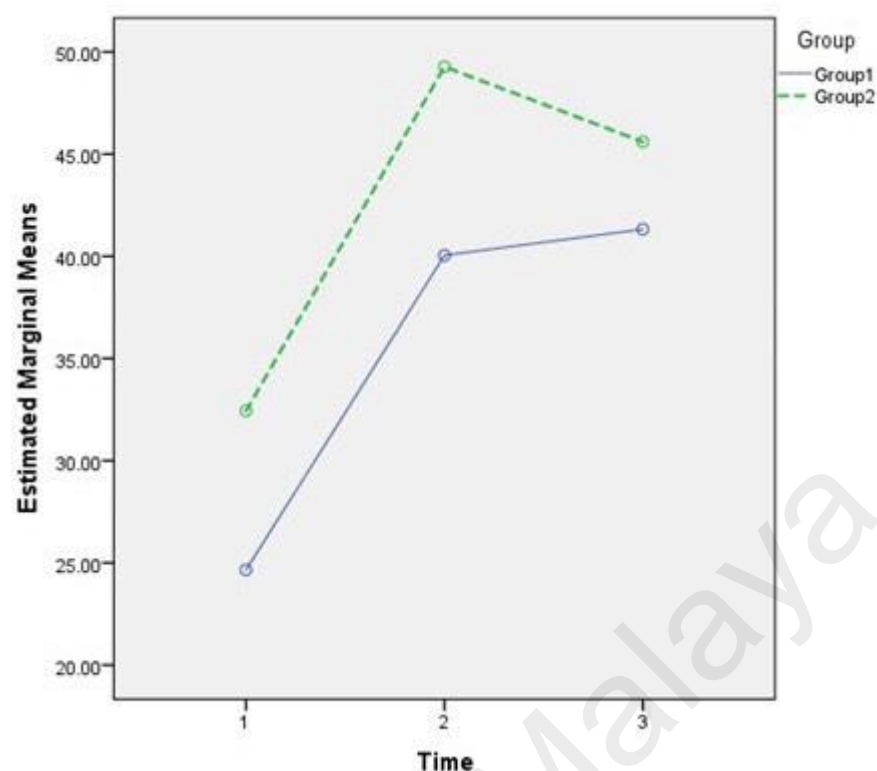


Figure 4. Profile plots.

The profile plots elucidated the trend of written test scores of the participants in the current study. The graph patterns of Group 1 (direct WCF) and Group 2 (indirect WCF) in estimated marginal means of the written test scores were the same in the beginning of the graph. The mean of the written test scores in the immediate post-test (i.e. Time 2) for the two groups increased sharply after the pre-test (i.e. Time 1). This can be concluded that the effect on participants' use of past tenses was high after the intervention in the first group and the second group. This means that both direct WCF and indirect WCF worked effectively on the two groups of students.

On the one hand, the mean of the written test scores for Group 1 (direct WCF) showed a slight ascending trend from the immediate post-test (i.e. Time 2) to the delayed post-test (i.e. Time 3). The mean of the written test scores for Group 2 (indirect WCF) on the other hand, showed a gradual descending trend from the immediate post-test (i.e. Time 2) to the delayed post-test (i.e. Time 3). This can be concluded that the patterns of

accuracy improvement in Group 1 (direct WCF) over 5 weeks were slightly better than the patterns of accuracy improvement in Group 2 (indirect WCF). Group 1 (direct WCF) had a slightly higher level of accuracy retention because direct feedback “limited learners to reading the corrected answers expressing agreement, with fewer instances of extensive engagement” (Storch & Wigglesworth, 2010). This means that direct feedback supplies learners with more immediate feedback on hypothesis that they may have made. Since the feedback in direct WCF is immediate, learners benefit more as it helps them lessen the confusion they encounter when they do not understand or remember what the feedback conveys. Conversely, indirect feedback, according to Ferris and Roberts (2001), involves learners to engage in guided learning and problem solving; therefore, it consumes more cognitive effort. When learners make their own corrections, the process is offset due to additional delay in knowing whether their own hypothesized correction is correct.

A past research employing direct WCF and indirect WCF reported findings that support the results of the current study. The Salimi and Ahmadpour (2015) study investigated the effect of direct vs. indirect WCF on L2 learners’ written accuracy. The findings of the Salimi and Ahmadpour (2015) study disproved Truscott’s (1996) claim: written error correction on students’ work should be abandoned because it poses more harm on students’ language learning development. Refuting Truscott’s (1996) claim, the Salimi and Ahmadpour (2015) study produced results that support WCF facilitative influence. It was revealed that the performance of the two groups was not statistically significant. However, the mean score for direct WCF group was higher than the mean score for indirect WCF group. It was also found that direct WCF and indirect WCF proved to have equal short-term effect in developing learners’ accuracy; but, direct WCF had a more significant long-term effect than indirect WCF.

Another past research also reported similar findings which support the results of the present study. The van Beuningen et al. (2008) study compared the effectiveness of direct WCF and indirect WCF on L2 learners' written accuracy. The study involved 62 students from two Dutch secondary schools. The findings of the study reported that the difference between direct group and indirect group was not statistically significant. However, participants in the direct group improved their writing performance from the pre-test to the post-test, while participants in the indirect group performed poorly on the subsequent writing task. Hence, direct correction feedback appeared to be the most effective treatment in the van Beuningen et al. (2008) study, resulting in both short-term and long-term accuracy improvement. The next section discusses on the analysis of qualitative data.

4.4 Analysis of Qualitative Data

In this study, the qualitative data involves students' interview transcription. There were a total number of 12 short transcriptions. There were 6 participants from each direct WCF group and indirect WCF group who were involved in the interview. To answer the third research question, thematic analysis was used. The next section describes the analysis of the qualitative data based on the third research question.

4.5 Analysis of Research Question 3

What are the factors that influence the performance of the students in the use of past tenses in relation to direct WCF and indirect WCF?

To find out the factors that influence the students' performance in the use of past tenses in relation to direct and indirect WCF, face-to-face interview sessions were conducted with 12 students. Prior the interview, each student was informed that she could respond in the language which she felt most comfortable with. In this case, students had the

choice whether to speak in Bahasa Malaysia or English or both Bahasa Malaysia and English with the researcher. The reason being was that when students chose to correspond in a language which they were comfortable with, they were likely to express their ideas more fluently. Moreover, the students were assured that they could express any negative opinions without hesitation. They were also informed that the researcher would like to get their genuine comments regarding the efficacy of direct and indirect WCF.

In the interview sessions, students were asked on topics related to 1) the problems they had to cope when WCF was employed; 2) strategies of WCF they applied when coping with the problems; and 3) recommendations on both WCF. Each interview session was recorded and transcribed. Then, after the data were collected, thematic analysis was carried out to extract themes relating to the third research question. The main themes identified from the analysis of data were learner attitudes towards feedback provided, learner beliefs towards what corrections entailed and types of scaffolding that influence students' performance in the use of past tenses. The next subsections discuss the three themes together with examples of excerpts from students' transcribed interview sessions.

4.5.1 Learner Attitudes towards Feedback Provided

Based from the interview sessions, learner attitudes towards feedback provided is the first factor that influences the students' performance in the use of past tenses in relation to direct and indirect WCF. Taken from interview sessions for three (out of six) students from each direct WCF group and indirect WCF group, they expressed that the corrective feedback they received was helpful. The excerpts for the three students from each direct WCF group and indirect WCF group are outlined below. (Note: excerpts have not been corrected for grammatical errors.)

Group 1 (Direct WCF)	
Researcher	: What are the problems you have to cope when your mistakes are corrected directly like this?
Student A	: There was no problem at all because there are correct answers written on top of the sentences. That's why I don't think there are any problems with me doing the correction.
Student B	: I didn't have any problems, teacher because the corrections are all given by you. I find it very helpful.

Figure 5. Students' responses towards the clarity of direct WCF.

As a general presupposition, Student A and Student B from Group 1 (direct WCF) seemed to favour the researcher's direct WCF. They agreed that corrective feedback was helpful in improving their next piece of written work. Student A favoured direct WCF because there were correct answers written on top of the sentences. Similarly, Student B preferred direct WCF because the correct answers were given by the researcher. Since the direct feedback was easy and clear, both Students A and B were able to write better.

However, Student C, expressed her concern about the benefit of the direct feedback she received. At the revision stage of the draft, she highlighted on the problems raised by the researcher's feedback. **Figure 6** below outlines the excerpt.

Group 1 (Direct WCF)

Researcher : What are the problems you have to cope when your mistakes are corrected directly like this?

Student C : First, I think the correction is really good in general because I know nothing about grammar correctly. But the thing is, I think this kind of correction will make me feel lazy. Like, I don't have to think. I just have to write and put whatever that is already written. Second, I don't know exactly know the difference between 'brought' and 'took.' It's basically the same thing.

Figure 6. Student's response towards the disadvantage of direct WCF.

Student C stated that the direct feedback she received was inapplicable because she believed that the direct feedback caused laziness and confusion. She argued that direct WCF caused laziness because when correcting the errors, she merely had to copy whatever that was already written by the researcher. Meanwhile, the feedback caused confusion because she could not distinguish the difference between 'brought' and 'took' in their usage.

According to Swain & Lapkin (2002), in relation to corrective feedback and learner attitudes, "learners may reject teacher feedback because it is perceived as violating their own beliefs about language conventions or as altering their intended meaning" (p. 299). Regardless of the problems mentioned by Student C, as a whole, she noted that direct WCF was beneficial. Although Student C argued that the researcher's feedback changed the intended meaning, she did not entirely reject the feedback because in her existing text, she was willing to incorporate the corrected answers. According to Student C, she still needed the feedback because her grammar was weak.

As for students from Group 2 who received indirect WCF, most of them seemed to have problems in the beginning of receiving indirect feedback. The excerpts for the three students from the indirect group are outlined in **Figure 7** below.

Group 2 (Indirect WCF)	
Researcher	: What are the problems you have to cope when your mistakes are corrected indirectly like this?
Student D	: I have a problem with my past tense. Like, I can't put the past tense in the correct way. I can't put it correctly because I didn't understand the symbols at first, even with the guideline paper for the symbols. After you explained and wrote other examples on the whiteboard, then I understood. The symbols are not too confusing.
Student E	: At first, when teacher show the symbols, I don't understand, because a bit confused and um, it looks like weird and uh, all symbols my teacher didn't use before. And then, after teacher explain and she write on the board, I understand better. After that, when teacher used again, I don't feel confused anymore. Uh, and then, when I see the symbols, I have to try to guess. I need to know what I need to put in.
Student F	: Okay, I have to face, like when I first got back the paper with the correction, I really didn't know what the symbols meant. You also gave me a guideline paper to the symbols and I referred these symbols based on the guideline. I saw the examples in the guideline, so I tried to do the correction by trial and error. When I first received the symbol guideline, I didn't really understand. I needed your explanation help me because I've never seen these symbols before. It's my first time. So, as weeks passed by, whenever I saw the symbols, I managed to understand them.

Figure 7. Students' responses towards the disadvantage of indirect WCF.

As for Student D from Group 2 (indirect WCF), she seemed to face difficulties in understanding the error codes at first. However, that did not stop her from doing her correction. As mentioned by Student D, after the researcher had explained and given examples, she understood the error codes. Likewise, Student E was not familiar with the error codes initially. Only after she was given an explanation and provided with examples, she was more comfortable with indirect WCF. Student F too had difficulty

when she first received indirect feedback. She admitted that when she was first introduced to indirect feedback, she corrected her errors by trial and error because she was not familiar with the error codes.

Albeit all three students in Group 2 experienced difficulties when first introduced to indirect WCF by the researcher, they were determined to understand the error codes and to correct their errors. The students' determination generally showed that they had positive attitude. Moreover, in the process of understanding the error codes, students from the indirect group were challenged to find the correct answers according to the codes assigned. Even though indirect WCF can "cause confusion in understanding the error codes" (Bitchener & Knoch, 2008), this did not impede Student D, Student E and Student F to keep trying to do their correction. Students were likely to feel satisfied and motivated when they successfully figured out the meaning of the error codes; thus, it encouraged them to find out more.

Therefore, students in both direct and indirect WCF groups seemed to favor the feedback given by the researcher. They were able to cope with the feedback given; thus, the feedback enabled them to do the correction. When students have a positive attitude towards error correction, their attitude influences the scope of engagement in learning a language. Also, when students are able to cope with the feedback, they are likely to accept the feedback given and benefit more from the corrective feedback. This can also be seen in the following excerpt.

Group 1 (Direct WCF)

Researcher : How does direct correction help you in your writing?

Student A : Because of teacher who wrote the correction for spelling mistakes, so everything was very straightforward. I could also see the correction clearly and I could understand the correction. The correction also helps me in noticing my spelling, my mistakes on the past tense and present tense...yes.

Figure 8. Student's response on acceptance towards direct WCF.

It was noted by Student A of Group 1 (direct WCF) in **Figure 8** that direct feedback did not pose any challenges; instead, Student A was willing to accept the feedback as it was more straightforward. According to Bitchener (2008), direct feedback is straightforward because there is no additional delay in knowing whether learners' own hypothesized correction is correct. Conversely, indirect feedback consumes more cognitive effort and when students make their own corrections, the process is offset due to additional delay in knowing whether their own hypothesized correction is correct. The following excerpt supports the situation.

Group 2 (Indirect WCF)

Researcher : How does indirect correction help you in your writing?

Student D : The guideline paper helps me to, er, find correct examples. When I see the symbols, I don't know my mistakes. Then, I look at the guideline paper, there got examples. I see examples and I look at mistakes. After that, I guess and guess. It takes time, but the symbols actually help me to see what mistakes I make. For example, if I see symbol 'vt', I know that is present tense or past tense mistake...or if I see symbol 'art', I know I make mistake with 'a' or 'the'. I think this correction helps me to improve my grammar. I learn to write more.

Figure 9. Student's response on her acceptance towards indirect WCF.

It was noted by Student D of Group 2 (indirect WCF) in **Figure 9** that she learned more from finding her own errors and making her own corrections. The additional delay occurred when Student D had to guess, indicating that she had to test out whether her hypothesis on the error codes was correct. Nevertheless, her main concern was on her linguistic errors. In relation to this, according to Diab (2005), the findings in the Enginarlar (1993) and the Diab (2005) studies based on their respective surveys of English-as-a-foreign-language (EFL) learner attitudes toward feedback techniques concluded that students were concerned with accuracy and perceived attention to linguistic errors as effective feedback from teachers. Furthermore, Cumming (1995, in Hyland 2003) stated that ESL students in academic contexts expect a particularly high value on form-focused feedback, which pays attention to linguistic forms. Also, students perceive having error-free work as highly desirable. Therefore, despite the additional delay due to hypothesis testing, Student D perceived the feedback as beneficial because it focused on her linguistic errors.

In brief, the majority of students being interviewed in direct and indirect WCF groups valued the feedback given. In line with the finding, past research studies such as the Radeki & Swales (1988) study, the Leki (1999 in Hyland, 2003) study, and the Ferris and Roberts (2001) study have found similar findings. Research findings in Radeki & Swales (1988) found that ESL teachers might lose their credibility among their students if they did not correct all surface errors. Likewise, findings in Leki (1999 in Hyland, 2003) on student attitudes towards feedback revealed that “many students desire their written work to be corrected and may be frustrated if this does not happen” (Hyland, 2003, p. 218). Ferris and Roberts (2001) found that the most popular error correction technique among the questionnaire respondents was for the teacher to mark errors and label them with a code. The next subsection discusses the second factor.

4.5.2 Learner Beliefs about What Corrections Entailed

Learner beliefs about what corrections entailed is the second factor that influences the students' performance in the use of past tenses in relation to direct and indirect WCF. According to Dörnyei (2005), language learner beliefs have been recognized as learner characteristics to count with when explaining learning outcomes. Learner beliefs greatly affect behaviour. The following excerpts elucidate learner beliefs towards both direct and indirect corrective feedback.

Group 1 (Direct WCF)

Researcher : Will you recommend direct feedback to be practised by your writing teacher? If yes, why? If no, why not?

Student A : Yes, because usually my teacher will not put the correct answer. She just, um, underline where my mistake and I didn't know what mistakes did I made. So if my writing teacher, um, mark my essay like this, it's easier for us to learn and improve our writing.

Group 2 (Indirect WCF)

Researcher : Will you recommend indirect feedback to be practised by your writing teacher? If yes, why? If no, why not?

Student D : Oh, yes. Because I know what my mistakes and the symbols will help me to correct my mistake. If the teacher only underlines, um, it's difficult. I don't know the mistakes. Like, now, I know 'sp' for spelling but if the teacher only underlines, I need to guess more...is it spelling or is it wrong word, so yeah. Something like that.

Figure 10. Students' responses on their preference towards both WCF.

In **Figure 10**, there was a clear recognition that the students benefited from the two types of feedback given. Student A of Group 1 (direct WCF) and Student D of Group 2 (indirect WCF) expressed an understanding what corrections entailed, preferring to have their errors pointed out and to have the error types identified rather than to have them merely underlined. The reason being was by underlining the errors, they did not know what kind of errors they made. In other words, the students had a firm believe that direct WCF and indirect WCF helped them note the errors better and that without the feedback, they would fail to notice the errors and improve. Interestingly, Student C of Group 1 (direct WCF) had a different belief. Her belief is discussed below.

Group 1 (Direct WCF)

Researcher : Will you recommend direct feedback to be practised by your writing teacher? If yes, why? If no, why not?

Student C : Yes, but only if it's used to set up the base for the students, but not to use it in a long term. Set up the base first, and then let them use their own words and let them make the mistakes and learn from their mistakes so that teachers can guide them from there. And explain to them what are their wrongs and where are their mistakes. I don't think instead of just write it on the students' paper is enough. The teacher should explain why this is wrong and this word should be used instead of this word.

Figure 11. Student's response on her suggestion towards direct WCF.

In **Figure 11**, Student C suggested that providing written feedback solely is insufficient; instead, the writing teacher needs to explain to students what their mistakes are. In other words, an additional form of direct WCF, which is a one-on-one individual conference between teacher and student (i.e. writing conference) is essentially needed. Writing conference is defined by Hyland (2006) as a two-way interaction between teacher and student(s) where meaning and interpretation are constantly being negotiated by participants, and which provides both teaching and learning benefits.

According to Saito (1994), in an L1 setting, teacher-student conferences, where a teacher and a student talk individually about the students' writing, have become increasingly popular tools in writing instruction. Findings of a past research on L1 writing carried out by Carnicelli (1980, in Saito, 1994) found that two-way communication in a writing conference appeared more effective than written comments because it allowed students to explain their opinions and needs, and to clarify the teacher's comments. In the case of L2 setting, teacher-student conferences in relation to students' writing work as effective as teacher-student conferences in the L1 setting as demonstrated by various studies like Goldstein & Conrad (1990 in Saito, 1994),

Amrhein & Nassaji (2010), and Tootkaboni & Khatib (2014). Students who received feedback in a form of student-teacher conference considered the feedback a very good ground for interacting with their teacher. Hyland & Hyland (2006, in Abdollahifam, 2014) emphasized that when feedback is contextualized and personal, students like it and they tend to pay more attention to it.

It can be concluded that learner beliefs have a great influence on the strategies they used for dealing with feedback. Hyland (2003) noted that teachers need to be aware of student beliefs, and take these into consideration when giving feedback. The majority of students desire to have their errors corrected in order to write better. They believe that good writing is equal to error-free writing. The next subsection discusses the final factor.

4.5.3 Types of Scaffolding that Influence Students' Performance

The third factor that influences the students' performance in the use of past tenses in relation to direct and indirect WCF is the different types of scaffolding. Scaffolding is a process in which learners are given support until they can apply new skills and strategies independently (Rosenshine & Meister, 1992, as cited in Larkin, 2002). Bitchener and Ferris (2012) noted that when learners get the appropriate amount of scaffolding from teachers and more advanced peers, learners can eventually be self-regulated (i.e., able to use the L2 autonomously). In particular, it is believed to be most effective in the learner's zone of proximal development (ZPD). ZPD, which is derived from a socio-cultural theory of human mental processing based on the work of Vygotsky, is the domain or skill where the learner is not yet capable of using the L2 autonomously as procedural knowledge (Bitchener and Ferris, 2012, p.18). However, with the scaffolded assistance of the more proficient partner, the learner's level of performance can be raised. In connection with ZPD, there are several ways a teacher

can incorporate scaffolding throughout a lesson. Scaffolding can be done in four ways based on the framework suggested by Ellis & Larkin (1998).

The first way is '*the teacher does it*'. This means that the teacher demonstrates the way to perform a new or difficult task by thinking aloud method. The second way is '*the class does it*'. In this method, the teacher and students work together to perform the task. The third way is '*the group does it*'. The third way requires students to work with a partner or a small cooperative group to complete a task. Finally, the fourth way is '*the individual does it*'. This is the independent practice stage where individual students can demonstrate their task mastery and receive the necessary practice to help them perform the task automatically and quickly.

In the case of the current study, the types of scaffolding involved are '*the teacher does it*', '*the group does it*', and '*the individual does it*'. '*The teacher does it*' was incorporated when the researcher provided both direct and indirect WCF on students' written work. When students could not get answers, the researcher and students worked together. The situation is illustrated in the excerpt below.

Group 2 (Indirect WCF)	
Researcher	: What did you do when you read your work marked with these symbols?
Student D	: I was so confused, okay. I had no idea what you wrote on my paper. After you gave me the guideline and showed some simple examples on the whiteboard and explained them to class, then only I understood. After that, I just did my correction.

Figure 12. Student's response towards the first type of scaffolding.

In **Figure 12**, Student D of Group 2 (indirect WCF) stated that she needed the guideline symbols provided by the researcher in order for her to understand the error codes. Besides that, the aid from the researcher via examples also facilitated her correction. As mentioned by Ellis & Larkin (1998), during the initial *Teacher* stage of the scaffolding process, the teacher introduces and models the task for students (work through the steps of a learning strategy, use a graphic organizer, tune a small engine carburetor, etc.). In this case, the researcher introduced the error codes and modelled the codes via the guideline paper and examples.

'*The group does it*' was a part of the scaffolding when students sought help from their peers and they discussed the answers together. The situation is elucidated below.

Group 2 (Indirect WCF)	
Researcher	: What did you do when you read your work marked with these symbols?
Student E	: At first, I have to read the guideline. I have to understand the guideline and then, I checked with my friend when I don't understand before I made the correction. The second time for the correction, it is quite easier for me because um, I really understand the guideline and er, yeah. It's easier for me to make correction.

Figure 13. Student's response towards the second type of scaffolding.

Student E of Group 2 (indirect WCF) in **Figure 13** explained when she did not understand the error codes, she worked together with her friend before correcting her task. Working together cooperatively with her friend was facilitative towards doing her corrections. According to Ellis & Larkin (1998), the *Group* stage is a form of guided practice or peer-mediated practice. Peer-mediated practice is important because students may learn as much from their peers as they do from teachers how a procedure is

performed. Also, it is important because the practice offers opportunities for students to interact and dialogue among themselves about various aspects of performing the task. In this case, Student E opted for peer review, allowing her to discuss her texts and discover other's interpretations of her errors.

Lastly, '*the individual does it*' was used when students tried to solve the problem by themselves without both teacher and peers' assistance. The example is shown below.

Group 2 (Indirect WCF)	
Researcher	: What did you do when you read your work marked with these symbols?
Student F	: After I read the first draft, I did my correction. The symbols are not confusing. The correction was not difficult because I had to rewrite the first draft with the help from the guideline paper. Also, I didn't feel worried that much about making more mistakes.

Figure 14. Student's response towards the third type of scaffolding.

In **Figure 14**, Student F of Group 2 (indirect WCF) stated that with the assist of the guideline paper, she was able to do the corrections by herself. She found the error codes were not confusing because the explanation and examples provided in the guideline paper seemed sufficient. According to Ellis & Larkin (1998), when students at *Individual* stage, this form of student-mediated practice gives them the opportunities to practice the task to build fluency, so that both the overt and covert behaviours associated with the task can be performed automatically and quickly. In other words, when students have command of the task given, they become independent. In the case of Student F in this study, she was self-regulated with the feedback received; thus, she was capable of independent problem-solving.

In line with the findings in the present study, the Aljaafreh & Lantolf (1994) study had similar findings related to scaffolding in WCF. Aljaafreh & Lantolf (1994) conducted a longitudinal study of adult L2 learners receiving one-to-one written feedback from their language tutor on weekly writing assignments. The Aljaafreh & Lantolf (1994) study relied on Vygotsky's notion of ZPD to analyze the interaction between error correction and the learning process as it develops during the dialogic activity collaboratively constructed by learner and tutor. The findings of the study revealed that effective error correction and language learning depend essentially on mediation supported by other individuals. Learners who engage with other individuals dialogically in constructive feedback are able to co-construct a ZPD because the feedback serves as scaffolded guidance. When scaffolding becomes relevant to learners, it can therefore be appropriated by learners to modify their interlanguage systems. Aljaafreh & Lantolf (1994) inferred that learning is not something an individual does alone, but is a collaborative effort necessarily involving other individuals.

4.6 Conclusion

This chapter presents the findings of the present study. The findings were discussed with reference to the three research questions. The results of other findings from past studies were taken into consideration and they were similar in comparison with the results of findings from the present study. In relation to the effectiveness of WCF, the findings did not support Truscott's (1996) claim: WCF is ineffective because it is detrimental to students' language learning development. It was revealed that both direct WCF and indirect WCF worked effectively in the accuracy gain of the past tenses uses. To be more specific, the direct WCF group had a slightly higher level of accuracy retention than the indirect WCF group. Furthermore, interviews were conducted in order to gain more insights on the factors that influenced students' accuracy use. Three main factors were identified: learner attitudes towards feedback provided, learner beliefs

towards what correction entailed and types of scaffolding that influence students' performance in the use of past tenses. The next chapter will discuss the implications, recommendations for future study and the conclusion of this study.

University of Malaya

CHAPTER FIVE

DISCUSSION AND RECOMMENDATIONS

5.0 Introduction

This study investigated the effectiveness of employing direct and indirect WCF on ESL students' use of past tenses. The findings revealed both direct and indirect WCF had positive effects in improving students' accuracy use of past tenses. Moreover, the results showed that the direct group performed slightly better than the indirect group in both immediate post-test and delayed post-test. It seems that both groups performed statistically significant over time, but there was no significant difference in the learners' use of past tenses between both groups. The summary of the findings, implications of the study, recommendations for future research and conclusions of the study will be presented in this chapter.

5.1 Summary of the Findings

Figure 15 below shows the summary of the findings of this study.

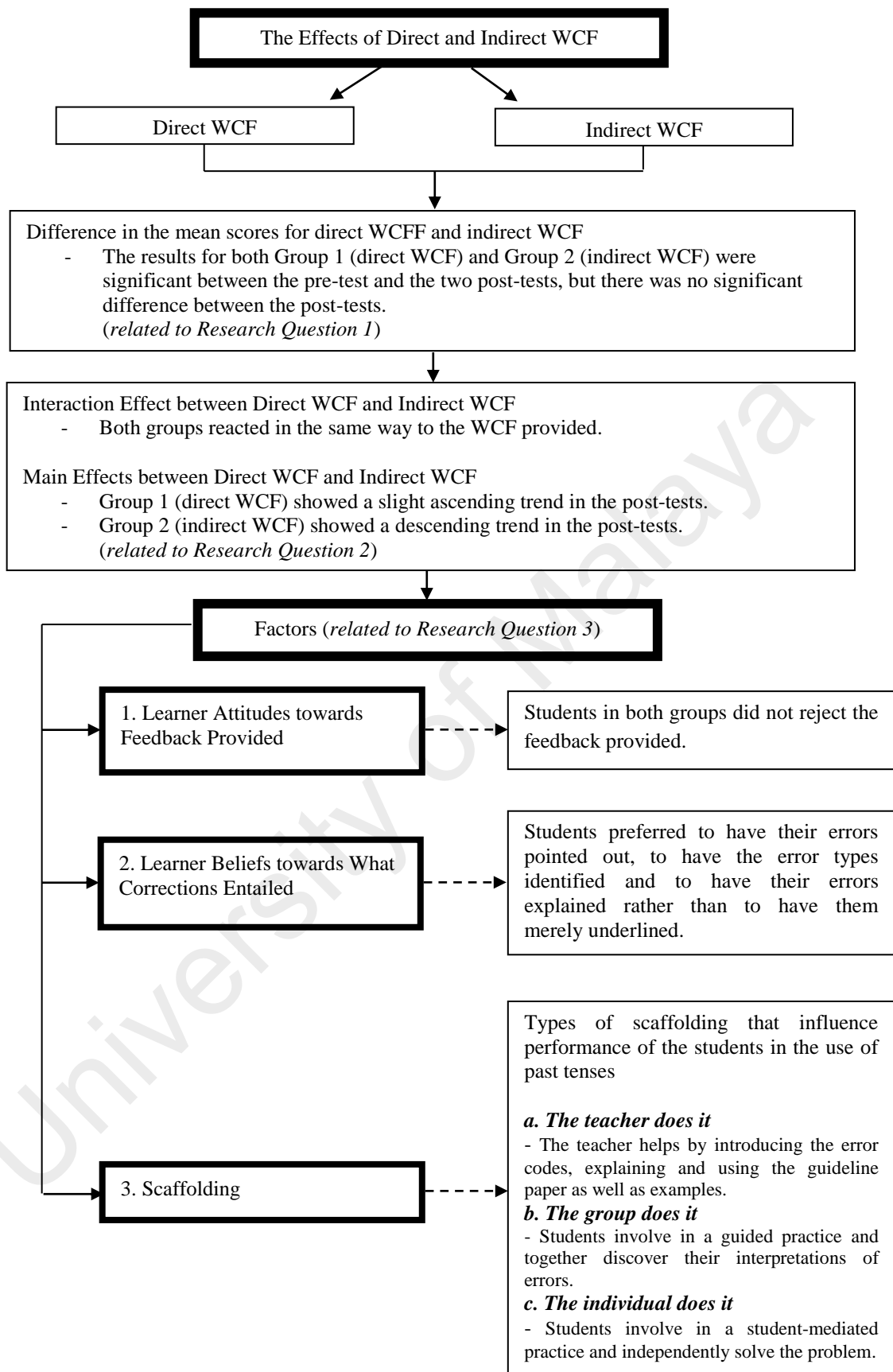


Figure 15. Summary of findings.

The results from the first research question revealed that the interaction effect was not statistically significant between time and group. In other words, both direct WCF students and indirect WCF students reacted in the same way to the WCF provided. Besides that, the results revealed there was a change statistically in written test scores in both groups across the three different time periods (i.e. effect for time). As of the effect for group, the research results showed that there was no significant difference. In other words, employing direct WCF was just as effective as employing indirect WCF. It may be due to that both types of WCF worked effectively because students in both groups did not have ample time to be trained and to practice the techniques as a result of short period of time frame in the treatment sessions, which began in Week 4 and ended in Week 6.

The results from the second research question proved the facilitative effects of WCF when it concerns the accuracy gain in the use of past tenses in learners' written work. The research results for both Group 1 (direct WCF) and Group 2 (indirect WCF) were significant between the pre-test and the two post-tests. This means that students in Group 1 (direct WCF) and Group 2 (indirect WCF) improved in their accuracy performance since significant result was achieved in the delayed post-test. Nevertheless, the mean scores for Group 1 (direct WCF) increased from the immediate post-test (M=40.04) to the delayed post-test (M=41.32); meanwhile, the mean scores for Group 2 (indirect WCF) decreased from the immediate post-test (M=49.27) to the delayed post-test (M=45.60). Since there was an increase in the mean scores for Group 1 (direct WCF), this means that the direct group had a slightly higher level of accuracy retention than the indirect group. However, it is evident that the mean score readings for indirect WCF are considered higher than direct WCF.

The results from the third research question revealed that learner attitudes towards feedback provided was one of the factors that influence the performance of the students in the use of past tenses. Most students who were interviewed by the researcher did not reject the feedback given as both direct and indirect WCF helped them to write better. Students in the direct group accepted the feedback given because direct feedback was clear and straightforward. Even though students who received indirect feedback did not feel the feedback was straightforward, they still believed that it was very helpful. They felt that indirect feedback was confusing because the feedback required them to understand the error codes; nevertheless, it did not impede the students in the indirect group to keep trying to do their correction. Furthermore, learner beliefs towards what corrections entailed contributed to the factors that influence students' accuracy in the use of past tenses. Students in both groups expressed that they preferred to have their errors pointed out and to have the error types identified rather than to have them merely underlined. This may be linked to the approach that is often adopted by their writing teacher. Finally, the findings revealed that different types of scaffolding also serves as one of the factors influence students' performance in the use of past tenses. There are three types of scaffolding involved. The first one is *the teacher does it*. The teacher helps by introducing the error codes, explaining and using the guideline paper as well as examples. The second type is *the group does it*. Students involve in a guided practice and together discover their interpretations of errors. Finally, the third type is *the individual does it*. Students involve in a student-mediated practice and independently solve the problem. The next section discusses the implications of the study.

5.2 Implications of the Study

This section is divided into 3 parts, which are theoretical implications, methodological implications and pedagogical implications. The theoretical implications are discussed in the next section based on the study's findings.

5.2.1 Theoretical Implications

The theoretical implications are related to theoretical understanding of the Output Hypothesis (Swain, 2005), which are the noticing function, hypothesis-testing function, and reflective function. The Output Hypothesis emphasized that when learners actively engaged in a language learning process, they produced language output which provides them with opportunities to use the language. Theoretically, learners who receive indirect WCF tend to be more attentive towards the feedback compared to those who receive direct WCF. This is because indirect WCF requires learners to engage in guided learning and problem solving; hence, it promotes greater effects on learners' uptake and retention. However, in the case of the present study, the quantitative inquiries revealed that even though the indirect WCF group performed slightly better than the direct WCF group in developing learners' past tenses accuracy, the former did not reach higher level of accuracy retention over time. This suggests that when learners in the indirect WCF group engaged in guided learning and problem solving, the feedback itself consumed more cognitive effort which does not necessarily lead to retention in accuracy in performance.

5.2.2 Methodological Implications

Since the current study employed both quantitative and qualitative analyses, the incorporation of the pre-test post-test design with direct and indirect WCF contributed to the quantitative data analysis. The interview with 6 students from each group contributed to the qualitative data analysis. The quantitative data provided answers

related to the effectiveness of WCF and the qualitative data addressed the issues of why and how the treatment received were effective in improving learners' language process. With regard to the methodological implications, it seems that students in the indirect group need more time to adapt on the use of the symbol guideline (i.e. the error chart). Students from the indirect group were initially given two weeks of treatment (week 4 to week 6) to get themselves familiarize with the error chart. It was evidently shown when the students stated in the interview that they faced difficulties in understanding the error codes; therefore, students need to be trained via examples beforehand.

In addition, one student from the direct group pointed out the needs of having a one-on-one conference feedback. A combination of WCF and one-on-one feedback would enable students to use the past tenses with significantly better accuracy as the combined feedback option allows teachers to discuss with their students which linguistic errors should be focused on.

5.2.3 Pedagogical Implications

The empirical study demonstrated that both direct and indirect WCF worked effectively in enhancing students' use of past tenses in their written work. It also revealed that direct WCF group retained better compared to indirect WCF group in relation to the accurate use of the past tenses. In spite of this, teachers should be made aware of the differences of these two types of WCF. Since neither direct nor indirect WCF was employed by the class teacher, learners were not aware of the benefits of these two feedback options. Based on the interview, learners from both direct and indirect groups understood what corrections entailed as they favoured to have their errors pointed out (direct WCF) and to have the error types identified (indirect WCF) rather than to have the errors simply underlined.

In the case of the present study, the majority of students from the indirect group expressed that they had some difficulties in understanding the error codes from the error chart initially. Thus, maintenance of error charts, ideally by the students themselves is essential. Students need to be trained to understand the error codes before they could practice them on their written tasks. By receiving guidance from the class teacher on the error codes, this can enhance their awareness towards their writing weaknesses and heighten their improvement. The recommendations for future research is discussed in the following section.

5.3 Recommendations for Future Research

In the present study, the number of participants for each condition group was limited to 30 intermediate ESL learners. The findings of this study have revealed that the intermediate L2 learners are able to improve the accuracy use of the past tenses if they are exposed frequently to either direct or indirect WCF. Further research is required if the findings also apply to L2 learners of other level of proficiency.

Secondly, the time spent for the interval (from the immediate post-test to the delayed post-test) was short, which was only for 5 weeks (from Week 7 to Week 12). The research results revealed that indirect group performed slightly better than direct group in improving the use of past tenses. However, it was the direct group that exhibited a higher level of accuracy retention throughout the research. Hence, to observe more consistent pattern in improvement of the target structure, it is suggested that further research is required in examining the effects for direct and indirect WCF more longitudinally.

In addition, the target linguistic form in the current study was focused solely on the past tenses. Past tenses errors are treatable errors because they are governed by rules. In fact, most of the recent WCF research has been designed to target treatable errors resulting in effective correction by the students. Therefore, more studies looking at different grammatical errors (present tenses errors, preposition errors, sentence fragments) are needed. The reason being is that different types of errors will probably involve varying treatments which might require a combination of strategy training and direct correction.

Finally, the present study did not include a control group. In relation to WCF to be effectively addressed, there should be studies that include control groups. Although not providing some students with WCF while others receive WCF could be an ethical concern, researchers can provide students in the control group with summarized notes on their errors. These summarized notes can be in forms of marginal comments about the writing content and the organisation of the writing.

5.4 Conclusion

The study revealed that both direct and indirect WCF are effective in improving students' accuracy in the use of past tenses. Even though students in the indirect group performed better, students in the direct group exhibited higher level of retention in accuracy in performance. Direct WCF seems more suitable with learners as young as 14 years old because at this age, students' mastery of L2 is still limited. They need more guidance in writing; thus, by helping them to notice a mismatch between their interlanguage and the target language via direct feedback, it might facilitate their second language acquisition.

The present study has yielded promising findings with regards to the effectiveness of both direct and indirect WCF. Since both direct and indirect worked equally well, teachers need to consider whether to focus their correction on a single error at a time or whether to focus on a number of different errors. A thorough attention on one or only a few error categories makes more sense when teachers consider the difficulty that learners experience in order to avoid information overload. Moreover, teachers may consider employing one of these approaches or incorporating the combination of both approaches in language classes to help learners improve their use of past tenses in writing. Teachers also need to consider the different contexts of the study with different group of students. Future research is needed in order to explain how different feedback relates to students' language performance.

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