FOREIGN LANGUAGE ANXIETY AND WRITING PERFORMANCE: THE EFFECTIVENESS OF USING A LEARNER CORPUS AND PEER CORRECTIVE FEEDBACK WITH STUDENTS LEARNING CHINESE AS A FOREIGN LANGUAGE

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Declaration

The material presented in this thesis is the original work of the candidate except as acknowledged in the text, and has not been previously submitted, either in part or in whole, for a degree at this or any other university.

Hongwei HAO

To My Most Supportive Supervisors, My Family, and My Friends

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Abstract

The teaching and learning of Chinese as a foreign language has been attracting the attention of researchers, language educators and other stakeholders worldwide. How to teach Chinese to non-native speakers effectively and efficiently has been one of the key issues. To contribute to this, the present study investigated the correlation between levels of anxiety and the writing performance of adult students learning Chinese as a foreign language at a university in China. In addition, this study also focused on examining the effect of using the Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a learner corpus and the effect of encouraging students to perform peer corrective feedback.

Foreign language anxiety may be a critical affective element influencing foreign language learning experience. Most studies exploring the correlation between foreign language anxiety and foreign language performance have been conducted with cohorts learning English as a foreign language. The current study adds to the understanding of this relationship by focusing on international students learning Chinese as a foreign language. It also considers how variations in teaching methods can improve Chinese writing performance and reduce foreign language learning anxiety.

The study involved the questionnaire of Foreign Language Classroom Anxiety Scale, which was used to measure participants' level of anxiety related to their in-class experience of learning Chinese as a foreign language. The questionnaire of Second Language Writing Anxiety Inventory was also used, in order to measure participants' level of anxiety specifically related to their response to a writing task. Writing assignments evaluated participants'

performance in Chinese as a foreign language writing. The measures were administered to a group of 112 undergraduate students from different countries outside of China, but taking Chinese foreign language courses in a university in China.

The data from the present study provided evidence that foreign language anxiety and foreign language performance were negatively correlated, suggesting a similar effect in these Chinese learners as found among English learners. The data also suggested that the use of the learner corpus and peer corrective feedback can be incorporated into the teaching of Chinese as a foreign language and lead to reductions in self-reported foreign language anxiety; though the effect of these two intervention approaches on general improvements in writing performance was less conclusive, with improvements being identified in some aspects of writing (such as coherence) but not others (such as grammar).

The study suggests that there is a need for researchers, policy makers and language instructors to engage in proactive discussions concerning how to employ the learner corpus and peer corrective feedback to reduce the negative impact imposed by foreign language anxiety and concerning whether individuals experiencing different levels of anxiety can gain similar benefits from these intervention approaches in terms of writing performance improvement. There is also a need for further research to specify the specific relationships between foreign language anxiety and writing as these may not be consistent across tasks or assessments of performance.

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Chapter One General Introduction and Overview of the Present Study

This thesis reports on a study designed and conducted to investigate the correlation between foreign language anxiety and writing performance among Chinese as a foreign language learners. The study also aimed to test the intervention effect of two proposed intervention methods in relieving the extent of anxiety and in promoting writing performance. This first chapter concentrates on the research background of the study reported in this thesis and the importance of carrying out a study among Chinese as a foreign language learners and with Chinese classroom as the context of learning. This chapter also states the research questions explored in this study and introduces how the study was carried out to answer the research questions.

1.1 Background and Rationale of the Study

Mandarin Chinese has now been regarded as an important global language (Wang, Moloney & Li, 2013). The Ethnologue surveying languages of the world estimated that more than 198 million people globally were learning Chinese as a foreign language in 2021 (Ethnologue). Among over 70 countries, Chinese as a foreign language learning programs have been officially incorporated as part of their national education systems (Tian, in press 2021). In the United States, American Councils for International Education conducted a survey in 2017. This survey found that over 0.2 million students were enrolled in Chinese language courses. In addition, Chinese was then the fourth most widely taught foreign language in the K–12 system in the United States (ACIE, in press 2017).

However, even though the number of Chinese language programs and the number of Chinese as a foreign language learners have kept surging, there has also been an obvious increase of dropout rate by learners after the learning of Chinese has been initiated for a period of time. An Australian report presented an unexpectedly high attrition rate among those who started learning Chinese as a foreign language in classroom-delivered courses during their schooling: as many as 94% discontinued before the senior years of secondary schooling (Orton, 2008).

One explanation of such a high drop-out rate may be related to the foreign language anxiety suffered by those learning Chinese as a foreign language. Xiao and Wong (2014) conducted a study to examine the effect exerted by anxiety in predicting student attrition in college-level language courses. Data elicited from 192 Chinese as a foreign language learners at two U.S. universities showed that class dropout rates were significantly correlated with the anxiety level perceived by participants. Xiao and Wong argued that in anticipating, understanding and addressing anxiety, language instructors need to lay emphasis on constructing a safe and comfortable classroom environment. Findings of the study indicated that learners with the higher levels of anxiety were more likely to demonstrate lower language proficiency and more likely to drop out of their foreign language courses than those who were less anxious. In analysing the role played by anxiety under the foreign language learning context, Onwuegbuzie, Bailey, and Daley (2002) developed a model called the Anxiety-Expectation Mediation (AEM) in analysing the relation between anxiety and performance. Through a path-analytic techniques, they found that there was a bi-directional and reciprocal

correlation between foreign language anxiety and foreign language performance. In other words, their analyses showed the path from anxiety to achievement and the path from achievement to anxiety were both a direct negative path.

Given the high drop-out rate common in adult Chinese as a foreign language learners who have low Chinese proficiency, and given the possible association between low proficiency and foreign language anxiety, it is of great theoretical and empirical value to conduct research among international students learning Chinese as a foreign language and to come up with reasonable intervention strategies. Among the many possible factors at play, the two that are focused upon in this present study are related to the learning environment and sources of corrective feedback. The rationale of focusing on the learning environment and corrective feedback is as follows.

For one thing, the importance of constructing a safe and comfortable learning environment has been recognized by many researchers. Ghaith, Shaaban, and Harkous (2007) carried out a study to examine whether there was effective teaching and learning among 76 students enrolled in five classes of intensive English instruction at a Middle Easter University. Their findings indicated that the environment of classroom played an important role in shaping the achievement and psychosocial adjustment of learners. If language learners feel unsafe and uncomfortable in the class, their sense of anxiety will be likely to increase. The study carried out by Sung and Li (2019) exploring the factors influencing Chinese language learning anxiety in the classroom setting involved 208 learners of Chinese at various language class levels enrolled at Universities in the United States. Findings of the study indicated that being

worried about their Chinese being judged in class by their teachers and peers is an important source of anxiety. In other words, the fear of negative evaluation was regarded as an important factor resulting in their sense of anxiety. In this context, it is of great importance to investigate whether the establishment of a safer classroom environment through using different types of corrective feedback could influence the sense of anxiety among those learning Chinese as a foreign language.

Moreover, the sense of anxiety may also correlate with the use of textbooks as exclusive teaching materials. Wu (2010) pointed out that conventionally, the language instructor relies heavily on the type of teaching materials they will use in class. This is because most tests of learning are designed based on the students' ability to register the information presented by teaching materials in their minds. In this case, students tend to attach great importance to memorizing vocabulary, phrases, grammatical rules, and sentence structure, but they may find it hard to use the target language in their real life. Students still err a lot in different aspects when they produce in a foreign language, which may give rise to their sense of anxiety. As Yuan (2017) pointed out in the study entitled A Brief Analysis on the Common Mistakes Made by American Students in Learning Chinese as a Second Language, a range of factors such as the interference from their native English language may account for the typical errors committed by those having English as their native language. With this in mind, it is reasonable to argue that the exclusive exposure to the materials presented in the textbooks may not be adequate for foreign language learners to realize what types of errors are commonly committed by those sharing similar Chinese competence. In this context, to use the learner corpus as a complement to existing teaching materials may not only reveal

what errors language learners of a similar academic background most commonly commit but also demonstrate that committing errors is nothing but a natural process of learning. It is predicted that this may exert a positive impact on the reduction of anxiety.

Wu (2010) and Zheng (2008) have argued that anxiety has been a focus attracting attention in the domain of foreign language acquisition. This is because anxiety can be a big impediment standing in the way of foreign language learning. Such anxiety may affectively hinder language learners from experiencing a comfortable language learning process (Marwan, 2007). Meanwhile, foreign language anxiety has also been believed to exert influence on all the four language skills of speaking, listening, reading, and writing. However, speaking is usually the domain that has been most frequently explored since Horwitz (1986), Price (1991), MacIntyre (1999) and Huang (2004) identified speaking in front of peers as one of the most important stimuli that can provoke anxiety in the process of foreign language learning. However, the aspect of writing is the one that has been largely unexplored, which is the focus of study reported in this thesis.

1.2 Purpose, Research Questions and Research Design

One aim of this study was to offer additional evidence concerning how foreign language anxiety and performance are correlated. The specific focus was on testing the correlation between anxiety perceived by those learning Chinese as a foreign language and their performance in terms of writing in Chinese. The foreign language anxiety as referred to in this thesis include two specific aspects, namely the anxiety experienced in the classroom setting and the anxiety related to the specific skill of writing. Another aim of this research was to

examine the effect of using the learner corpus and peer feedback, observing whether anxiety can be reduced and whether writing performance can be enhanced due to the employment of these two intervention approaches.

The following are the research questions to be answered:

1. Does the anxiety level correlate with their performance in writing?

2. Will the incorporation of a learner corpus reduce learners' anxiety level?

3. Will the incorporation of a learner corpus enhance learners' performance in writing?

4. Will the employment of peer correction feedback reduce learners' anxiety level?

5. Will the employment of peer correction feedback enhance learners' performance in writing?

To investigate the research questions as presented above, this study used a quantitative data collection and analysis method. The three measures used in the present study comprised Foreign Language Classroom Anxiety Scale, Second Language Writing Anxiety Inventory and a series of writing tasks. The use of the two anxiety-measuring measures has been approved by the respective authors (as shown in the Appendix). The validity of writing tasks has been tested in two pilot studies.

One hundred and twelve students studying in a public university in China participated and completed the whole process of the study. The participants were Year Three students coming

from different countries and learning Chinese as a foreign language. They were studying in different degree programs and none of them majored in Chinese. For those who withdrew either at the pre-intervention stage or the during-intervention stage, their data were deleted for all the analyses. This was done out of the concern that other participants might be aware of who withdrew from the study. Those who withdrew were absent from the intervention sessions and it may be easy to relate the data to those who did not turn up for all sessions of interventions.

The data collection of the main study was carried out between September to December of 2020, and the whole process was conducted online through Tengxun Meeting System and Tengxun Questionnaire System (see Chapter Three Methodologies 3.3.2.2 for details). The study was conducted at three stages. At the pre-intervention stage, the data concerning participants' level of anxiety and writing performance were collected. At the during-intervention stage, the data concerning participants' writing performance in each session were collected. At the post-intervention stage. The same three primary measures assessing the anxiety level and writing performance were again administered on the participants.

The quantitative analyses were employed, using the data obtained from one hundred and twelve participants. Correlation between anxiety and writing performance was calculated between the constructs of the two anxiety scales and the writing scale scores at the pre-intervention stage. During-intervention data were recorded to track the performance of each participant during the six-session-long intervention process and to investigate whether there were statistically significant difference between three groups which got exposed to different

intervention approaches. Post-intervention data were collected from the same measures as administered at the pre-intervention stage. Pre-and-post intervention data analyses were performed to examine whether the interaction effects before and after the intervention among three groups were significant and whether there were any specific intervention effects of the learner corpus and of peer corrective feedback.

All the measures and intervention approaches were conducted under the context of learning Chinese as a foreign language and in the specific skill of writing. Yet, the findings of the study will contribute to the existing body of literature in the field of foreign language anxiety and its impact, especially in the skill-specific research in writing anxiety. The findings can also serve as evidence showing the value of incorporating the learner corpus and peer corrective feedback as a complement to the traditional methods of using textbook based teaching and teacher corrective feedback, though the intervention effect of these two intervention methods in improving writing performance was only significant for some subscales of writing.

1.3 Overview of the Thesis

The thesis consists of five chapters: introduction, literary review, methodologies, main study and findings and discussion. This first chapter presents a brief introduction to the background of the study, research question, research design and the structure of the whole thesis. Chapter Two presents a literature review in four domains. The first domain is about the definition, causes and influence of foreign language anxiety. The second domain is about the use of the learner corpus in foreign language teaching and the advantages and disadvantages of using the learner corpus. The third domain is about the use of the peer corrective feedback in comparison with teacher corrective feedback. The final domain is about the

factors that may influence the writing performance in foreign language acquisition. Chapter Three introduces how the design of the study was developed. This chapter starts with introducing the three measures and research procedures. Descriptions about the two pilot studies include the purpose, measures, procedure and results as well as the participants takin part in each pilot study. This chapter also explains what modification were made based on the result of each pilot study. This chapter also states that ethical approval was granted before the implementation of the study. The fourth chapter gives a detailed description of the main study. This chapter begins with an account of the participants, measures and research design of the main study. Then it moves on to present the key findings of the research. Major findings include in three aspects. To begin with, there was a significant adverse correlation between classroom-related and writing-specific anxiety and writing performance. Additionally, the intervention effect of the use of the learner corpus and the peer corrective feedback was significant in relieving the overall anxiety. Moreover, at the during-intervention stage participants in the two experimental groups had more gains in writing performance, and analyses showed that the improvement was mainly due to the use of the learner corpus; the anxiety decrement was accompanied with significant improvement in two subscales of writing - task response and coherence and cohesion. The final chapter - the discussion chapter - discusses the significance of the findings and the possible implications from theoretical and empirical perspectives. This chapter also states the limitation of the study and gives suggestions for improving the teaching of Chinese as a foreign language writing under the context of Chinese classroom culture.

Chapter Two Literature Review

A literature review is presented in this chapter, giving introductions to the researches that have already been carried out in four aspects. One aspect is concerning foreign language anxiety and the impact thereof on learning effect in foreign language acquisition. Another aspect is about the employment of the learner corpus in foreign language acquisition and the function of Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a learner corpus in teaching Chinese as a foreign language. The third aspect is about the effect of teacher corrective feedback and peer corrective feedback. The fourth aspect is about factors influencing the performance of writing in a foreign language.

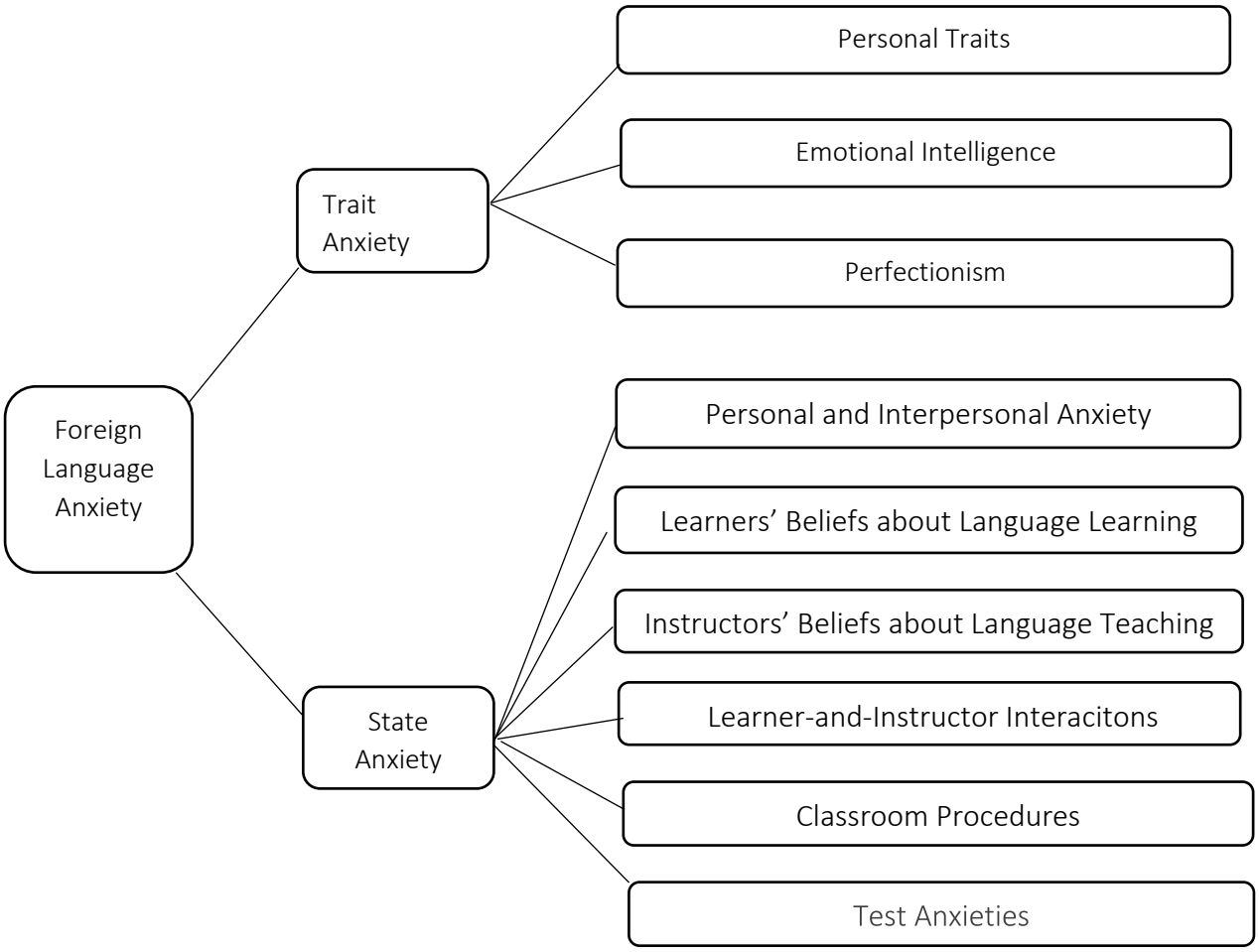
2.1 Foreign Language Anxiety: the Causes, the Impact and the Measuring Instruments

Foreign language anxiety refers to self-perceptions, beliefs, feelings, and behaviours that are associated with classroom language learning, which is commonly believed to originate from the uniqueness of the process of learning a foreign language (Horwitz, Horwitz & Cope, 1986). This type of anxiety has long been deemed as one of the most critical affective elements influencing foreign language learning. Since this feeling of uneasy suspense (Rachman, 1998) can matter significantly to both the outcome of learning and affective feelings learners may have during the process of learning, researchers have been widely exploring the causes of foreign language anxiety from both theoretical and empirical perspectives.

2.1.1 Factors Contributing to Foreign Language Anxiety

There are a range of factors either related to language learners themselves or related to the language learning process that can lead to foreign language anxiety. Anxiety is categorized by Spielberger (1971) into trait anxiety and state anxiety. Trait anxiety refers to the personality-related anxiety that is comparatively stable; state anxiety is regarded as a response to a particular anxiety-provoking stimuli such as an important test. Researchers' opinions towards whether to categorize foreign language anxiety as a trait anxiety or a state anxiety have never been unanimous. Those deeming foreign language anxiety as a trait anxiety believe there are many inner characteristics of learners that may lead to foreign language anxiety, whereas those deeming foreign language anxiety as a state anxiety find causes in many external stimuli. Figure 2.1 summarizes the insights from previous studies about causes of foreign language anxiety.

Figure 2.1 Causes of foreign language anxiety



On one hand, there are series of researches conducted by researchers exploring how learners' internal characteristics and foreign language anxiety are correlated. These studies suggested that foreign language anxiety can be categorized as a trait anxiety (Dewaele, 2002, 2008; Gregersen & Horwitz, 2002). The internal characteristics that may contribute to foreign language anxiety include personal traits, emotional intelligence and other personality dimensions such as perfectionism.

As for the factor of personal traits, a study carried out by Dewaele (2002) over a hundred first language Dutch-speaking students revealed that for those participants in this study who were learning English as a third language, their personality was significantly associated with their level of anxiety. For example, those who are extraverts tend to self-report less anxiety since they are less worried about how others may evaluate their performance. MacIntyre and Charos (1996) also maintained that foreign language anxiety can be closely associated with personality traits. They analysed data collected from a group of Anglo-Canadian students learning French as a second language to explore how the variable of personality traits and foreign language anxiety were correlated. The results from their study showed that those who possessed lower emotional stability turned out to be more vulnerable to foreign language anxiety. In other words, the level of anxiety perceived by foreign language learners was associated with their own personal traits.

When it comes to the impact of emotional intelligence of individuals on their perceived anxiety, Dewaele et al. (2008) found that those whose emotional intelligence was higher experienced significantly lower communication anxiety and foreign language anxiety. Dewaele attributed the inverse relationship between emotional intelligence and foreign language anxiety to the assumption that those with higher emotional intelligence may be more capable of managing their own emotions.

Thirdly, perfectionism is another personality-related factor that may influence the level of foreign language anxiety. Gregersen and Horwitz (2002) conducted a study to examine how the trait of perfectionism may influence the level of anxiety. They recorded how four anxious

and four non-anxious language learners commented on their own performance as they watched themselves interact in a video-recorded oral interview. Based on a qualitative analysis of the recording, they found that those who were anxious tended to expect a perfect performance of themselves and were inclined to be quite concerned about errors and negative evaluation that stemmed from errors. They concluded that the more anxious participants were more likely to be perfectionists.

By contrast, those categorizing foreign language anxiety as a state anxiety attribute the arousal of this type of anxiety to a range of anxiety-producing factors that are related to classroom teaching. Young (1991) categorized the causes of language anxiety into six aspects: personal and interpersonal anxieties, learners' beliefs about language learning, instructors' beliefs about language teaching, instructor-learner interactions, classroom procedures and language testing. Young (1994) also maintained that these sources of language anxiety are not independent from each other but interrelated. Some factors indicate that foreign language anxiety is both a trait anxiety related to individual's personal traits and a state anxiety that is provoked by external stimuli.

Personal and interpersonal anxieties represent a type of social anxiety. These anxieties arise "in real or imagined social situations where people are motivated to make a desired impression on others but doubt that they will do so" (Schlenker & Leary, 1985, p.176). People suffering these anxieties are not satisfied with their performance under social contexts; meanwhile, they also fear that there might be negative evaluation on them because of their inadequacy demonstrated by the errors they make. According to the cognitive model

of social anxiety (Clark & Wells, 1995), the entering into a social situation will naturally initiate certain assumptions and beliefs. For example, individuals tend to believe that if they do not present the right answer they will be deemed as losers. These beliefs often stem from earlier life experiences that have made individuals think of certain situations as being able to jeopardize their self-esteem. In this context, the anxiety incurred by such beliefs may discourage individuals from actively participating in social situations and lead to the belief that their personal ability is not adequate (Topham & Russell, 2012). In a survey exploring the influence of interpersonal anxiety, a thousand and five hundred students enrolled at two universities demonstrated frequent anxiety under the context of learning situations where interaction with other students and staff are involved (Russell, 2008; Topham, 2009). Participants of Russell and Topham's study reported strong anxiety and the feeling of being embarrassed with the need to interact with others in the class. Meanwhile, some participants demonstrated a strong inclination to avoid public situations such as project groups by being absent or through non-participation. Similarly, Sadeghi et al. (2013) conducted a study over seventy-six advanced language learners learning English as a foreign language in a language institute. Qualitative analyses of the study revealed that those constantly worrying that their performance would be evaluated by either the teacher or their experienced higher level of anxiety. Researchers of this study believed that personal and interpersonal concern is one factor triggering anxiety. In other words, it is the vulnerability and exposure to potentially negative feedback under a social context that may trigger the sense of anxiety.

Another source of anxiety in foreign language acquisition is learners' improper understanding of language learning. Many language learners believe that in the process of learning

everything should be clarified in order to avoid the occurring of errors and they should speak in a way as native speakers do. In this case, the lower tolerance of ambiguity stemming from the unrealistic expectations of language mastery may become a cause of higher anxiety. For example, Matsuura (2007) carried out a study exploring the relation between language learners' misconception of second language learning as reflected by their tolerance of ambiguity and their anxiety level. Matsuura analysed findings of the study and concluded that in listening to unfamiliar speakers or strange speech content, listeners' tolerance of ambiguity made a huge difference in their perceived level of anxiety. Those who could not tolerant ambiguity and believed that they should understand each word as a native speaker does demonstrated stronger anxiety.

The language instructor's belief of teaching and learners' relationship with their teachers are two instructor-related factors that are identified as significant factors influencing students' anxiety. In this regard, language instructors should take up multiple roles of not only teaching but also serving as a psychologist, a counsellor, and a friend as well (Horwitz et al., 1986; Young, 1991). Whether the classroom environment is stressful or secure is largely dependent on teachers' attitudes towards teaching and learning, how they responded to the learners' errors and how they conducted error correction. Bailey (1983), Young (1991), and Savignon (1987) all agreed that language instructors should regard it as a golden rule to offer a feeling of security and comfort when delivering language classes. These researchers believed that if the language instructor is over serious or stringent, language learners will be more likely to suffer a huge amount of stress. Williams and Andrade (2008) conducted a study with an effort to identify the most anxiety-provoking situation among English as a foreign language

learners in a Japanese University. 243 students were invited to express in a written form about the situations that led to anxiety. Results of the study revealed that around fifty percent of participants deemed teachers as the primary element causing anxiety. This study has also identified the most anxiety-provoking situations that were associated with teacher, suggesting that forcing the learners to respond before they are ready or leaving them in uncomfortable silence will very likely to result in anxiety. This study laid emphasis on the strategies that language instructors need to avoid embarrassing situations in class and further supported the need for improving student-teacher relationships.

Classroom procedures could also provoke foreign language anxiety. Learners tend to feel more anxious and stressed if the classroom follows the traditional learning procedures according to which the learners are required to constantly drill or repeat some tiresome tasks. Cooper and Brownell (2020) proposed the idea to change the traditional classroom procedure into a learner-centred environment where group activities abound and believed this change to the classroom procedures can play a role in reducing anxiety. The reasons supporting the positive impact of group activities on the reduction of anxiety lie in two aspect. One is that group activities can facilitate the fostering of friendly relationships among students so that they get to know each other and feel more at ease presenting themselves in discussion. The other reason is that a classroom climate will be established where students will understand inquiry and collaborations are more valued than the need to be always correct (Cooper & Brownell, 2020).

Language test is another factor leading to foreign language anxiety, which is expressed in forms of fear of failure and teacher's Scoring. Horwitz et al (1986) pointed out that testing is an important source of anxiety since many students and language instructors believe that the grades obtained in tests can be indicative of their language proficiency level. Results of certain tests would often determine whether students can move on to the next level of study or have to repeat the same course. Failure in the tests may even bring about the critical feedback of the students' parents as well. Among tests of different language skills, oral testing may be the most anxiety-triggering test because oral test can lead to both test anxiety and communication anxiety (Horwitz et al., 1986).

There have been many studies over the anxiety perceived by those learning a foreign language as referred to above; however, most of these studies have been about the oral mode of language skills (Cheng, 2004). Cheng pointed out that writing-specific anxiety has not received much attention and given the potentially disastrous impacts possibly imposed by it, writing anxiety deserves "research spotlight" (Choi, 2014). As pioneering researchers in writing anxiety, Daly and Miller (2012) claimed that the relation between the low writing scores and high writing anxiety can be defined as bidirectional. On one hand, if language learners feel highly anxious, they may experience negative stressors and their development of essay writing ideas may be interrupted. On the other hand, if language learners have a poor command on language structure usage and writing skills, they tend to feel highly anxious. Worse still, when the written products of highly anxious writers are negatively evaluated by classroom teachers, their anxiety level may get further increased.

When it comes to the interpretation about how foreign language anxiety may impose a negative impact on writing performance, Zhang (2019a) pointed out that writing anxiety can be regarded as an emotional element impairing students' confidence in constructing writing. . This interpretation can be strengthened by the study over several affective elements on the writing performance conducted by Sabti, Rashid, Nimehchisalem, & Darmi (2019). In this study, foreign language anxiety was defined as maladaptive behaviours of students performing a particular writing task. These maladaptive behaviours demonstrating foreign language anxiety, as was argued in this study, would make individual learners interpret errors they make as an indication of inability, leading them to withdraw effort and avoid challenge. These tendencies of effort withdrawal and challenge avoidance may eventually be held responsible for the undermined quality of writing. These studies were similar in showing that the higher the level of the students' anxiety, the worse their writing performance. In this context, it will be of significance to explore ways to mitigate writing anxiety.

Researches concerning writing-specific anxiety mainly focused upon English-as-a-foreign-language learners. However, as Liu (2018) pointed out, there have been few studies exploring the anxiety felt by those learning other languages as a second or foreign language, and the writing-specific anxiety perceived by those learning Chinese as a second language/Chinese as a foreign language is a scarcely-touched area. Since Chinese is a language possessing unique features, especially in the respect of the character writing system, there might be added difficulty that may make the writing in Chinese challenging and stressful. In this context, the

study reported in this thesis will be of great theoretical and empirical value and can contribute to comprehensiveness of the research in foreign language anxiety.

2.1.2 Facilitating Effect of Learners' Anxiety

From the perspective of many researchers, anxiety in a broad sense is not always a bad things. There are certain theories accounting for the possible positivity of anxiety. The Drive Theory (Zajonc, 1965) suggests that if an athlete has strong skill and feel driven (by somatic and cognitive anxiety) then the athlete will be more likely to have excellent performance. Eysenck (1979) believed that a person is anxious in that he worries about a certain issue, and such a state of being worried could be the source, the fuel, for a drive to remove the cause for worry. The theory proposed by Moyer (2008) offered an explanation for the facilitating role played by a proper amount of anxiety. Moyer assumed that increased anxiety corresponds to faster auditory and visual muscle response. Owens et al. (2014) gave psychological explanations for the positive impact of anxiety. They pointed out that some degree of anxiety may contribute favourably to performance, especially in cognitive tests. This is because anxiety can serve as an impetus for one to be successful in some areas. They believed that the state of being anxious can possibly lead to the result that one puts additional effort into work or study, tries all the means to make a good impression and continuously endeavours to approach goals. An important theory in the domain of the positive role played by anxiety in foreign language learning is the Noticing Theory proposed by Schmidt (1990, 1994, 1995, 2001). According to this theory, the primary issue in foreign language acquisition is to lead learners to make improvement gradually. To achieve this goal,

noticing is a condition of great necessity, without which language learners would find it hard to convert what they acquired from foreign language input into useful knowledge reserve. In this noticing theory about foreign language acquisition, anxiety plays a positive role in getting one concentrated on the language input and thus is regarded as facilitating. In other words, a proper amount of anxiety can play a positive role since anxious individuals will tend to be more attentive in the process of foreign language acquisition, notice what has been delivered by either language instructors or other materials, and thus become more successful in learning and mastering a foreign language.

In support of this noticing theory, Nassif (2019) carried out a study with eighty participants who were enrolled in six sections of intensive first semester Arabic at a large university in the United States. Nassif's study was designed to test the relationship between foreign language anxiety and the noticing and integration. The finding showed that, unexpectedly, foreign language anxiety was positively correlated with the general noticing and integration of foreign language forms. In other words, participants with higher levels of foreign language anxiety were likely to notice and integrate language forms. This study offered empirical evidence that foreign language anxiety was beneficial to the learning of a foreign language.

Another empirical study showing support to this noticing theory is the one conducted by Moyer (2008) in a public north-eastern university. This study was designed to examine how the sense of anxiety can impact the learning effect. In the study, thirty-nine students and two employees were invited to investigate the sense of anxiety on the ability of people of different social roles to acquire information that is irrelevant to any disciplines. Participants

were asked to complete an anxiety questionnaire and then to get engaged in playing a type of building toy in a limited period of time. This experiment was designed to partly to assess whether facilitating anxiety is associated with enhanced and proactive problem solving ability. The results of this experiment showed that as anxiety level increases, the speed of response also increases, thus suggesting a positive correlation between anxiety and performance.

In addition to the noticing theory, other advocates of the positive impact of foreign language anxiety believed that this anxiety can trigger the fight mechanism in language learners. Kleimann (1977) conducted a study on the English output of Arabic and Spanish students and in this study a variety of tests were employed to assess the impact exerted by anxiety. It was found that facilitating anxiety can encourage some learners to employ the very advanced English structures. Scovel (1991), showing strong agreement with Kleimann (1977) and citing conclusion made by Kleimann (1977), maintained that facilitating anxiety motivated the learner to "fight" learning task; it gears the learner emotionally to resort to a wide range of resources in approaching the challenges in language studies. This finding offered an innovative insight as it questioned the long-held view in anxiety research that foreign language anxiety can be detrimental or even devastating in foreign language proficiency and achievement.

2.1.3 Debilitating Effect of Learners' Anxiety

However, there are also persistent voices casting doubt on the positive impact exerted by foreign language anxiety. One theoretical interpretation of the negative impact exerted by

anxiety is Eysenck's attentional control theory (Eysenck, 2007). According to this theory, there are two functions that play an important role in foreign language acquisition. One function is called inhibition function, which can serve the purpose of preventing individuals from directing their attention to task-irrelevant stimuli such as fear of feedback from teachers or peers. The other function is called shifting function, which can ensure that individuals focus their attention on the stimuli that are most closely related to the given task. Eysenck (2007) believed that foreign language anxiety may impair the function of both the inhibition function and the shifting function. As a consequence, those high-anxious individuals are more sensitive to distractions than are low-anxious individuals, thus paying excessive attention to task-irrelevant factors. Meanwhile, anxious individuals may find it hard to focus on the task if their anxiety exceeds a certain level. Once individuals are not able to resist distractions due to a high level of anxiety, their performance will be adversely impacted.

Empirically speaking, many studies have been carried out, seeking to examine whether negative impacts are exerted by foreign language anxiety on language learners. Hu & McGeown (2020) conducted a study making an effort to examine how affective factors such as anxiety and motivation are correlated with achievement. The study had 631 participants who were primary school students aged nine to eleven. Foreign Language Classroom Anxiety Scale was used to measure students' anxiety level. Regular assessments and formal examinations were conducted to collect data concerning participants' achievement in learning English as a foreign language. Correlation analyses were employed, the results of which showed that students' foreign language anxiety was inversely correlated with their

foreign language achievements. This statistically significant inverse relationship between foreign language anxiety and foreign language achievement provided empirical reference for the study with learners at an early age.

When it comes to the effect of excessive anxiety on foreign language learners, MacIntyre and Gardner (1989) took a close look and defined the relationship between learners' anxiety levels and their foreign language performance as quite negative. They proposed the notion that "anxiety leads to deficits in learning and performance" (MacIntyre & Gardner, 1989, p. 271). Having carried out a succession of related experiments, they hypothesized that triggering a sense of anxiety may contribute adversely to learners' cognitive competence in taking in, processing and producing a foreign language. Even though a reasonable amount of anxiety can serve the purpose of motivating students to make persistent endeavour in language learning, the role played by high-rate anxiety can be defined as catastrophic.

Meta-analysis was also carried out to present the researches done in this field. Zhang (2019b) carried out a meta-analysis to explore how foreign language anxiety and learning effect were correlated. This meta-analysis identified altogether forty six studies and all these studies were conducted after 1986 (the exclusive criteria for this meta-analysis). From these it was found that the overall correlation between foreign language anxiety and foreign language performance was −.34 ($p < .01$), showing that the higher the anxiety level is, the poorer the learning performance will be. Another finding of the meta-analysis is that the anxiety-and-performance correlation remained stable across groups with different foreign language

proficiency levels, suggesting that the role of foreign language anxiety should not be ignored even though the learners have high proficiency level in the target language.

However, there have been very few studies carried out to test the anxiety level of students learning Chinese as a foreign language and their performance in Chinese writing, and fewer studies have been conducted to set those coming to China to study Chinese under the traditional Chinese educational context as the research subjects.

2.1.4 Complicated Relation between Anxiety and Learning Performance

Other than researchers holding either positive or negative attitudes towards the role played by foreign language anxiety in foreign language acquisition, there has been a belief that the relation between anxiety and learning performance is complicated and sometimes varies with a range of factors such as the type of tasks and the level of anxiety.

The comprehensive theory of Anxiety, Avoidance Motivation and Arousal was proposed by Humphreys and Revelle (1984; see also Revelle, 1987; Revelle & Loftus, 1990). According to this comprehensive theory, the impact of anxiety depends on the type of tasks: sustained information transfer tasks refer to the tasks that do not have much requirement on retention or stored resources but require individuals to process a stimulus, arbitrarily respond to the stimulus, and execute the response; short-term memory tasks, by contrast, are those tasks that require constant rehearsal or other information-retrieving practices to maintain information in an available state. In short, short-term memory tasks need more effort and sustained information transfer tasks have higher requirement on attention. This theory

points out that generally speaking, if a task requires a substantial short-term memory and efforts to retain the memory, then performance on this task will be more adversely influenced compared with that of the task that does not have much involvement of short-term memory but requires the concentration of attention. The reasons supporting this theory are in two aspects. One aspect is that anxiety can lead to arousal that will put individuals on alert and be more attentive to the task. In this case, if individuals feel a high level of anxiety, they might turn out to be more concentrated on the task and their performance will be facilitated (Revelle & Loftus, 1990). As a consequence, their performance on tasks requiring attention may not be significantly affected since the increased attention may compensate for the negative impact imposed by an anxious state. The other aspect is that anxiety will trigger task avoidance motivation, making individuals reduce their efforts and try all the possible ways to avoid threatening situations. The reduced devotion to the work may exert more influence on the tasks that have greater requirement on effort.

Another theory examining the complexity of anxiety-and-performance relationship is the processing efficiency theory proposed by Eysenck and Calvo in 1992. Eysenck and Calvo, when analysing the impact of anxiety on cognitive performance, proposed the idea to differentiate performance effectiveness and processing efficiency. According to them, performance effectiveness is simply associated with the overall quality of task performance, while processing efficiency identifies the relationship between the effectiveness of performance and the effort devoted to the task. In other words, processing efficiency is defined by performance effectiveness divided by effort. This theory maintains that the state of anxiety will produce a more adverse influence on performance efficiency than on

processing effectiveness. The reason is that one important effect of anxiety is to serve as a strong motivational power. Put differently, if individuals feel anxious and worried, they will be inclined to seek for resources to fight against the possible unfavourable consequences resulting from poor performance by making more effort, thus still achieving good performance effectiveness. In a sense, the impairment produced by anxiety on individuals' performance can be compensated for by the devotion of more efforts and resources. As a result, the performance effectiveness may remain unchanged even when one suffers high degree of anxiety. Wong et al. conducted a study with seventy-five university students ranging from 17 to 47 years old to examine the impact of anxiety on the processing efficiency and performance effectiveness. Data elicited from this study demonstrated that anxiety may result in the decrement in processing efficiency, but there was no evidence showing that anxiety would impose a negative impact on performance effectiveness.

2.1.5 Foreign Language Classroom Anxiety Scale as an Anxiety-Measuring Instrument

Given the influence exerted by anxiety on performance, how to measure the level of anxiety has also been at issue. Horwitz et al. worked out Foreign Language Classroom Anxiety Scale to collect data relating to language anxiety and to investigate the levels of foreign language anxiety. This instrument has 33 items in a 5-point Likert-scale and is presented in self-report questionnaire format. In order to facilitate the analysis over foreign language anxiety and performance evaluation under either academic or social contexts, Horwitz et al (1986) proposed that there are three conceptual constructs in describing foreign language anxiety - Communication Apprehension, Test Anxiety and Fear of Negative Evaluation. According to

Horwitz et al (1986), Communication Apprehension refers to a type of shyness incurred by fear of or anxiety about communicating with people. The reason why foreign language learners often perceive Communication Apprehension is that foreign language classes usually require students to communicate using the language they are not yet adept in. The consciousness that they would not understand others, and nor would they make themselves understood when communicating in a foreign language seems to underlie Communication Apprehension. Test Anxiety is defined as a type of performance anxiety, which can be attributed to a fear of failure. Those who experience test anxiety often project unrealistic expectations on themselves and feel that imperfect performance at the tests is a failure. Fear of negative evaluation, also termed as fear of feedback from teachers and peers, describes the anxiety related to the apprehension about others' evaluations. Different from test anxiety that only describes anxiety arising in test-taking situations, fear of negative evaluation is a kind of anxiety that may emerge in any evaluative situation such as interviewing for a job or speaking in a foreign language class. The negative evaluation that students fear may come from teachers, who are the only fluent speakers in the class; meanwhile, students are also very vulnerable to the evaluations of their peers, though these evaluations are sometimes real and sometimes imagined.

Though using three constructs to describe foreign language classroom anxiety, Horwitz et al (1986) also clearly stated that foreign language anxiety is not a simple combination of these three constructs but a distinct complex of self-perceptions, beliefs, behaviours and feelings that are associated with classroom language learning. Yet, to use these three constructs to

describe and interpret foreign language anxiety helps researchers to better examine the sources and symptoms of anxiety in foreign language learning.

The reliability as well as the comprehensiveness of this instrument in measuring foreign language learning anxiety has been widely recognized throughout the whole world. In a study carried out by Azmi and Sham (2018) in the government secondary schools in Malaysia, Cronbach's Alpha was employed to determine whether Foreign Language Classroom Anxiety Scale can be defined as "reliable". Cronbach Alpha was developed by Lee Cronbach (1951, 2004) to measure the reliability of internal consistency of test items of set of scale. Reliability is defined as an internal consistency, and Cronbach Alpha is designed to test such internal consistency, revealing the extent to which instrument measurement can accurately, stably and repeatedly measure the proposed issue (Awang et al., 2015). The interviews made among 302 respondents who learn English as a foreign language in Malaysian secondary schools demonstrate that for Foreign Language Classroom Anxiety Scale, Cronbach's alpha rating is 0.90, which is the maximum value as recommended by Tavakol and Dennick (2011). This could offer evidence that this scale is a "reliable" instrument in measuring the level of foreign language learning anxiety. Similarly, Aydin (2016) carried out a study in Turkey to test the reliability of Foreign Language Classroom Anxiety Scale. The results of the study indicated that Foreign Language Classroom Anxiety Scale is an appropriate instrument to measure the levels of foreign language anxiety among Turkish Foreign student learning English as a foreign language and the Cronbach's Alpha is 0.86.

However, many scholars questioned the necessity of having 33 items in the scale, especially when considering that there are some items that are apparently repetitive. Panayides and Walker (2013), in their article published on Europe's Journal of Psychology, explained why the repetitiveness of items seems to be reasonable. Cronbach's alpha has long been employed by most studies on Foreign Language Classroom Anxiety Scale and this alpha index has a close association with the number of items of a scale and the parallel repetition of items. As a consequence, many researchers designing measuring scales would be potentially encouraged to design the scale with many items, with parallel repetition being deliberately used to enhance this Cronbach's alpha index. Even though Panayides and Walker believed that such repetition is reasonable, they concurred with Boyle (1985) in advocating that high values of alpha were merely an indication of item redundancy and the narrowness of the scale. Maloney, Grawitch and Barber (2011) also claimed that the lengthy scale can lead to the result that an excessive amount of time is consumed in completing the survey, making participants feel weary and bored.

In addition, the stability of this scale was also questioned. According to Bora and Jongmin (2011), when they used Item Response Theory to assess the reliability of Foreign Language Classroom Anxiety Scale, they reported that this scale provides precise and reliable information for those classified as being lowly or moderately anxious, while for those classified as being highly anxious, the information presented by this scale gets increasingly unreliable.

Since the previous research studies have demonstrated that Foreign Language Classroom Anxiety Scale is stable and trustworthy, the researcher in this study also selected Foreign Language Classroom Anxiety Scale as the instrument for measuring the anxiety of international students learning Chinese as a foreign language. Yet, considering that there are indeed certain controversial ideas about this scale, the researcher in this study has examined both the total score of the scale and the three sub-constructs of the scale to compensate for the potential flaws. As suggested by Panayides and Walker (2013), merely using one total score to assess the anxiety level can result in controversy and questionable conclusions; hence, to employ three independent scores for the three scales and investigate them separately will lead to more scientific and objective conclusions. Accordingly, in this research, the three separate scores for the three components of the scale are examined separately.

2.1.6 The Second Language Writing Anxiety Inventory as an Instrument in Measuring Anxiety in Foreign Language Writing

Most of research done in this area deals with the anxiety experienced by learners in oral communication, and it is often taken for granted that reading and writing do not play a major part in discussing about students' perception of anxiety. The studies concerning writing anxiety did not start until 1970s. From then on, there have been serious studies concerning writing-specific anxiety. Philips (1992) argued that the then-existing anxiety scales related to foreign language learning focused more upon the oral performance, and were neither adequate not viable to be used in measuring learners' performance in writing when they perceived anxiety. In this context, the urge to identify and examine writing-specific anxiety was strong, prompting many researchers to develop proper and standardized measurement,

which could facilitate quantitative assessment and investigation of anxiety perceived by foreign language learners in writing (DeVellis & Thorpe, 2021). For the first time, Daly and Miller (1975) tried to systematically clarify the elements that could lead to writing apprehension and influence students' development of writing skills. They collaboratively developed an instrument known as the Daly-Miller Writing Apprehension Test which consisted of a 26-item questionnaire. This instrument was used by many researchers, among whom Bline, Meixner, Nouri and Pearce (2001) evaluated this instrument by using factor analysis and comparability analysis. Their research indicated that this instrument was a valid tool for measuring foreign language writing anxiety but was defective in comprehensiveness.

Cheng (2004) made efforts to work out a more comprehensive measurement scale to evaluate writing anxiety level, and this instrument is called Second Language Writing Anxiety Inventory. This scale is composed of 22 items, which are further categorized into three subscales: Somatic Anxiety, Cognitive Anxiety and Avoidance Behaviour. Somatic Anxiety identifies how one perceives the anxiety from a physiological aspect, such as the development of unpleasant feelings including nervousness and tension (Cheng, 2004). Cognitive Anxiety relates how anxiety exerts influence on the cognitive aspect including negative expectations, preoccupation with performance and concern about others' assessment (Cheng, 2004). Avoidance Behaviour examines the effect of anxiety on the behavioural often reflected by avoidance of writing (Cheng, 2004). As is explained by Cheng, seven items are employed to measure learners' somatic anxiety, eight items are designed to measure their cognitive anxiety and another seven items are included to measure whether learners have avoidance behaviour. Results of studies carried out by Wu (2006) and Zheng

(2005) demonstrated that the total scale and the subscales of this Second Language Writing Anxiety Inventory have good internal consistency reliability and good test-retest reliability. Cheng (2004) conducted a formal study where a sample of 421 English as a Foreign Language majors enrolled in seven different colleges in Taiwan are closely examined, based upon which she drew the conclusion that both the total scale and the three individual subscales (somatic anxiety, cognitive anxiety and avoidance behaviours) can be identified as having good reliability and adequate validity.

Yet, these advocating voices do not mean that this Second Language Writing Anxiety Inventory has been unanimously deemed as perfectly reliable and thoroughly validated. Jang and Choi (2014) conducted a study where 204 Korean college students participated. The collected data revealed that although the overall construct validity is adequate in terms of fit and correlation analyses, there are, however, 11 items that seem to be problematic when their fit values are examined. Admitting that the 5-point rating scale was appropriate and reliable to elicit the students' responses, these two researchers pointed out that component analysis results showed that the data contained unexplained multidimensionality problems.

All in all, even though there has not yet been an agreement as to whether the major impact imposed by foreign language anxiety is positive or negative, it is at least agreed that learners' anxiety is associated with their performance in foreign language acquisition. The two anxiety-measuring instruments have their respective advantages and disadvantages, and in the study reported in this thesis, two anxiety-measuring instruments are employed to elicit data, with

one focused on measuring learners' anxiety level in classroom and one designed to test their anxiety in fulfilling writing tasks in Chinese.

2.2 The Use of Corpus in Foreign Language Teaching

In the aspect of foreign language teaching, the presence of textbooks signifies the need for analysing the content and problems associated with the success of the foreign language programs. However, some flaws of merely using textbooks have been noticed by many researchers. Guerrettaz and Johnston (2013) have conducted research to examine the role played by textbooks. The findings showed that even if textbooks play a positive role in motivating classroom interactions between the teacher and the learners, textbooks need to be constantly adapted to cater for the needs of learners. In addition, Gómez-Rodríguez (2010) examined five representative English textbooks that are currently used for upper secondary and university instruction. All these five textbooks were published by recognized publishing houses. The study showed that English textbooks cannot be relied on entirely to develop language competence. Gómez-Rodríguez (2010) believed that these five textbooks attach more importance to grammar study and practice than to the development of language skills. In addition, these textbooks focus more on the use of formats that do not reflect authentic tasks. Gómez-Rodríguez suggested that textbooks should be complemented with other possibly meaningful tasks that are part of what speakers do in real life.

As a compensation for the flaws of textbooks, corpora have been incorporated in the process of foreign language teaching since corpora can provide large databases of language

production from which learners can gain direct benefit (Romer, 2010). Corpus linguistics is regarded as a well-established linguistic specialization and corpus pedagogy is deemed an innovative and effective approach to language studies (Ma, Tang & Lin, 2021). In the 1980s corpora appeared as a system collecting a large group of related electronic collections of texts in a systematic manner (Vyatkina & Boulton, 2017). Quite a few researchers have recognized the value of corpus and started to explore this territory either theoretically or empirically (Hunston, 2002; Sinclair, 2004; Biber & Conrad, 2004, 2009; Bennett, 2010).

In the aspect of theory, there is a quite unanimous agreement on the definition and value of corpus. Bernardini (2004) defined a 'corpus' as a large collection or database of machine-readable texts. These texts include natural discourse in diverse contexts, which can be spoken, written, computer-mediated, spontaneous, or scripted. The purpose and function of such a corpus is to represent a variety of genres such as everyday conversations, lectures, seminars, meetings, radio and television programmes, and essays.

The value of incorporating corpus in foreign language teaching and learning has been researched in different dimensions. Biber and Reppen (2002)emphasized the value of corpus as resources in learning grammar since corpus data suggest that individuals often do not use language as specified in grammar books and that word meanings vary across contexts and users. As was emphasized by Biber and Conrad (2002), one noteworthy feature of corpus is that it demonstrates how the everyday usage of language deviates from what is specified in grammatical textbooks. In this context, employing corpus into the grammar teaching can get students exposed to the richness of resources and enhance their awareness about

grammatical principles. Moreover, in terms of learning autonomy, Boulton and Cobb (2017) claimed that the use of corpora can encourage autonomous discovery and personalised learning. Further, Bennett (2010) believed that to use corpus data in foreign language teaching and learning is meaningful since the corpus can provide resources about how different language forms are used at formal or informal occasions and different speech functions are fulfilled under diversified contexts.

The theoretical exploration in the domain of corpus linguistics has encouraged many researchers to investigate the value of corpus in actual teaching. Evidence has been provided by researchers based upon their respective studies to support that the employment of corpus in foreign language teaching can enhance the efficacy of learning in grammar, vocabulary acquisition and learning autonomy.

Çelik and Elkatmiş (2013) investigated the value of incorporation corpus in grammar instruction. They carried out a study in Turkey where 171 prospective teachers were divided into two groups, with one group receiving traditional lecture-based teaching and the other receiving corpus-assisted teaching. In the study, the corpus-based teaching and lecture-based teaching were adopted and compared to examine which one was more effective in teaching punctuation marks. The results of the post test revealed that the participants studying with the assistance of corpus had better performance compared with those studying with the lecture based method. Additionally, the results of this research provided evidence substantiating that corpus assisted language learning can exert positive impacts on language learners by exposing them to authentic language.

In the aspect of corpus-assisted vocabulary teaching, a study carried out by Al-Mahbashi et al. (2015) invited sixty female students to participate and all the students were from the second level in the English Language Department. This study had its focus on the value of employing corpus in the aspect of vocabulary acquisition, aiming at exploring whether corpus-based learning had an advantage over the dictionary-based learning in assisting university students learning English as a foreign language to develop the meaning of words and collocation of receptive vocabulary knowledge. Findings of the study demonstrated that the group using corpus as the approach of vocabulary acquisition achieved a noticeable improvement compared to the control group that had dictionary as the approach of vocabulary acquisition. Al-Mahbashi et al. (2015) attributed the positive impact exerted by corpus in vocabulary teaching to the fact that corpus can present the target words under rich contexts and the numerous exposures to them that would subsequently lead to vocabulary acquisition.

In the respect of grammar teaching and learning autonomy, Boontam and Phoocharoensil (2018) did a study on thirty young Thai learners. The study was designed to examine whether the incorporation of corpus in language teaching can facilitate the learning of three English prepositions (during, among and between) and whether this innovative method of corpus-assisted teaching can enhance the learners' learning autonomy and enthusiasm. Findings of the study supported the conclusion that participants getting exposed to corpus-assisted teaching enhanced their grammatical awareness concerning how to use the three prepositions properly. Meanwhile, these participants were described as being more positive towards learning since they felt it helpful, fun and challenging to learn through corpus.

There are also other researchers who designed studies to examine the impact imposed by corpus in the teaching of translation abilities (Kübler, 2003) and in how to correct errors that occur in foreign language writing (Bernardini, 2004; Gaskell & Cobb, 2004). Most of the studies are designed to have experimental groups employing corpora in language learning and control groups using the traditional teaching materials. These empirical studies demonstrated that even though corpora could not substitute the traditional reference works such as dictionary or grammar book, the data in the corpora are very valuable in enriching the resources and upgrading the information system.

Even though many researchers welcomed the employment of corpus in foreign language teaching and learning by giving theoretical and empirical evidences, there were still other researchers having recognized the disadvantage of having corpus as a means of teaching. One disadvantage of using corpus in language teaching is that the learners often fail to distinguish whether what is presented in the corpus is correct. A corpus does not demonstrate to learners whether a sentence is grammatically or syntactically acceptable. A text can be written by anyone, and as a natural consequence learners usually may not have the facility to figure out whether there are mistakes or not. Another disadvantage is that to use corpus in classroom teaching can be technically challenging and time-consuming. Getting exposed to an overwhelming amount of data in the corpus can actually confuse or even frustrate language learners. For this reason, Boulton (2008) advocates using paper-based materials instead of getting students exposed to the use of corpus software.

In terms of language teaching, it was found that traditional language descriptions in textbooks do not match the actual use of language found in large corpora (Carter, 1998; Burns, Gollin & Joyce, 1997; McCarthy, 2002; Thornbury & Slade, 2006; O'Keeffe, McCarthy & Carter, 2007). This is the point where corpora have influenced language teaching. Insights and linguistic evidence gained from corpora have fed into the development of corpus-based teaching and learning materials such as the production of learners' dictionaries and course books. Moreover, corpora have had some impact on classroom practice.

Hunston (2002) says that this approach is supportive to learning since it motivates learners to remember what they have discovered, and corpus data can draw learners' attention to patterns that have been overlooked by the teacher, or not covered in textbooks. In the study reported by the present thesis, the data of the corpus were sorted out by the teacher and handed out to participants in printed formed. In this way, no electronic devices are required in the class and participants will not feel overwhelmed by the unfamiliarity of using the corpus software. Moreover, a learner corpus is adopted where errors are clearly annotated so learners are able to know how and why a sentence is grammatically erroneous.

Corpora can be categorized in different ways because they are designed to provide different functions (Gabrielatos, 2018). When the source of data input is taken into consideration, corpora can be divided into two categories, namely native corpora and learner corpora.

2.2.1 The Advantages of Employing the Native Corpus in Foreign Language Learning

A native corpus refers a collection of texts, whether written or spoken, that are produced by native speakers in natural settings. Bouton and Cobb (2017) conducted a study to summarize findings from experimental and quasi-experimental investigations into the effectiveness of using the native corpus for foreign language learning or use. Based upon the findings of 64 separate studies that provide data indicating the effect of incorporating native language corpora in foreign language teaching, Bouton and Cobb concluded that the use of native language corpora in foreign language learning is advantageous mainly in two aspects.

Firstly, exposure to native language corpora can assist language learners to become familiar with the patterns and norms of the target languages. Indeed, rules are artificial intellectual abstraction, which are actually hard for foreign language learners to memorize and apply. Yet, if foreign learners are given the opportunity to get exposed to abundant input examples that are employed in the target language, they will be more likely to automatically figure out the proper pattern and then proceed toward the target norm by progressive approximations. (Aston, 1998). In this vein, the native corpus can prove to be an effective means to make the abundant input examples accessible.

Secondly, the native corpus can demonstrate to students which forms and meanings in a language are most frequent and thus probably most worth knowing. As argued by Millar (2011), the native corpus provides access to the massive amounts of authentic language (input flood), and then organizes the input to make patterns obvious and easy to be noticed.

The empirical research in favour of the native corpus is mainly conducted in the domain of vocabulary and grammar acquisition. As for vocabulary acquisition, Gardner and Davies (2014) and Schmitt (2010) have conducted researches, demonstrating that the employment of native corpus is able to facilitate language learning, since learners can get repeated exposure to different contexts and opportunities to guess word meaning and use from contexts. As for grammar acquisition, Smart(2014), in his research titled the role of guided induction in paper-based data-driven learning, claimed that the access to the native corpus allows learners to inductively discover the principles underlying language usage by means of interacting with concordancing software or with concordance-based instructional material.

Moreover, a native corpus can provide convincing evidence concerning the discrepancies between the actual use of a language and the traditional textbook-presented views on languages (Sinclair, 1997). For example, Corpus-based research has also revealed the inadequacy of many of the rules that still dominate ELT materials. The discrepancy revealed can give some insights to how the data of native corpora and effectively complement the employment of textbooks in language teaching and learning.

2.2.2 The Disadvantages of Employing the Native Corpus in Foreign Language Learning

Yet, such views appear to be over optimistic to other researchers who cast doubt on the feasibility as well as effectiveness of using the Native corpus. This attitude can be best reflected by the following two researches. Firstly, Chambers (2007) examined twelve papers with a view to evaluating the efficiency of using the Native corpus, and as was put by him, these papers were mostly based upon experiments of small scale and are only of a qualitative

nature. Moreover, upon taking a close look at 39 empirical studies pertaining to the employment of the native corpus, Boulton (2007) explicitly pointed out that these researches dealt exclusively with the attitudes towards the approach or the processes involved instead of the effectiveness of language learning. The reason is that even though such native speaker corpora are instrumental in acquiring a foreign language (Johansson, 2009), they actually fail to demonstrate what pose difficulties and challenges to the language learners. (Granger, Kraif, Ponton, Antoniadis & Zampa, 2007).

Empirically, the advantages of native corpus are also questioned. Native speakers of a particular language do not necessarily possess a very clear and integrated understanding of the language in all the circumstances of utilization and there are different intuition of language use for different native speakers. In this context, to rely upon the native corpus in language teaching would lead to confusion and fragment of knowledge input.

The study conducted by Romer (2011) can substantiate the point that the discrepancy between what is described in textbooks and what is presented in native corpora about the actual usage can prove to be quite confusing or even frustrating to language learners. Romer (2010) employed the perspective of corpora to explore the criteria and norms in describing and teaching a particular language. By examining how “if”- clauses were used differently in corpora of English as a Foreign Language textbook and in the corpora of native speaker, Ute found that what is taught in this aspect is quite different from how such clauses are actually used by native speakers. Ute then conducted data analysis, from which the findings revealed that even the advanced learners experienced difficulties when trying to use “if” clauses and

he believed that such difficulties derived from the confusion incurred by the conflicting in put they get exposed to. This study cast doubt on the current teaching content and urged for more popular application of corpora in language teaching.

2.2.3 The Advantages of Employing the Learner Corpus in Foreign Language Learning

One distinction between the native corpus and the learner corpus lies in that the former can demonstrate what native speakers typically say, whereas the latter works to indicate the typical difficulties that a learner of a certain language may experience, and particularly to indicate what a certain group of learners may find difficult to understand and use (Nesselhauf, 2004). In Nesselhauf's research, it was found that learner corpora - electronic collections of authentic texts produced by foreign language learners - can well lead to a clearer recognition of such difficulties and a better understanding of the differences between what is produced by language learners and what is typically produced by native speakers.

Studies carried out about the application of learner corpora carry substantial weight for syllabus design (Aston, 1998; Granger, 2003). In the aspect, the adoption of learner corpora can serve two purposes. One is that learner corpora tells a lot about what specific learner populations need to learn (Meunier, 2002). The other purpose is that with the learner corpora, teachers can have a clearer understanding about whether a particular phenomenon poses difficulty to the target learning group (Granger, 2002). For instance, Nesselhauf (2005), having studied the learner corpus, found out that many learners used verb-noun collocations in an unidiomatic manner (e.g., reach an aim, drive a bike), and hence suggested that language teachers should attach more importance to the teaching of combinations such

as “achieve an aim or ride a bike”, especially when the learning populations are from German.

Recognition of this sort will prove to be quite valuable in foreign language acquisition. Indeed, arguing that native-speaker corpora often provide examples of using language in a way that deviates from the grammatical rules that are explained in class, Osborne (2000) questioned the suitability of only including the native-speaker corpora as a suitable source for learners. He instead proposes the learner corpus approach, and believes that corpora of this type can enable foreign language learners to notice the errors that are most probably committed by foreign language learners. As the research carried out by Cotos in 2014 demonstrated, if the students can get access to the corpus that contains writing done by themselves, there will be more likelihood for them to progress more significantly, possess a stronger initiative and considerably reduce their level of anxiety. This result echoed with Seidlofer’s (2002) conclusion that learner corpora can be a strong factor to motivate learners since analysing written materials of foreign speakers of similar background can nurture an encouraging environment of learning. This benefit may be attributed to the belief that tasks based upon corpora were deemed as a learning experience related to personal circumstances. Yet, little research has been done about the effect of employing learner corpora that consist of the grammatical mistakes committed by foreign language learners sitting Chinese Proficiency Test (HSK), which is the domain that the study described in this thesis intends to explore.

2.2.4 The function of Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a Learner Corpus in Teaching Chinese as a Foreign Language

The growing global influence of China has attracted great attention from all over the world to the issue of learning Chinese as a foreign language, and the number of students coming from foreign countries to study in China has undergone steady increase (Meyer, 2014; Wang, 2016). As more and more people find Chinese language and culture intriguing and the learning of Chinese important, researchers in the domain of language acquisition begin to explore the teaching of Chinese as a foreign language. One research focus is about how teaching pedagogy could be worked out to effectively meet the need of those aspiring to learn Chinese as a foreign language. Another research focus is about how to properly assess the learners' proficiency for academic and professional purposes. In this context, Chinese Proficiency Test (HSK) was developed in 1984 and has now become China's national standardized test to assess the Chinese language proficiency of non-native speakers such as foreign students and overseas Chinese.

Afterwards, driven by the necessity to facilitate the teaching of Chinese as a foreign language by demonstrating what errors are usually committed in the writing section, HSK Centre of the Beijing Language and Culture University designed, organized and implemented a project to establish Chinese Proficiency Test (HSK) Dynamic Writing Corpus from 1992 to 2005. The reasons for choosing Chinese Proficiency Test (HSK) Dynamic Writing Corpus as the teaching material for teaching Chinese as a foreign language are as follows. One important feature of HSK Dynamic Writing Corpus is that errors committed by learners are clearly annotated. As a

matter of fact, errors committed by learners in the process of foreign language acquisition have long been a focus calling for attention for researchers in applied linguistics. Analysing learner errors is important both to language learners and to teachers. As for language learners, they will be reminded about what errors are commonly committed by previous learners and then be encouraged to try preventing themselves from committing similar ones. As for teachers, they will be informed of the typical problems committed in the process of learning and then the language input they deliver to learners will be more useful.

Accordingly, to clearly and systematically annotate the errors proved to be quite facilitating in foreign language teaching. Thanks to the annotation system, corpus users are able to observe what errors foreign language learners commit and how frequent such errors are made. The use of an annotation system in foreign language acquisition has been examined by many researchers. For example, the Error-Annotated German Learner Corpus (EAGLE) was designed to help beginning learners to enhance their awareness concerning grammatical errors (Boyd, 2010), while the Hungarian Learner Corpus contains the annotation of student journals. In this corpus, errors in terms of phonology, morphology and syntax are annotated clearly (Dickinson & Ledbetter, 2012).

All in all, annotating learners' inappropriate usage of written language is of great importance for learner corpus research (Díaz-Negrillo & Fernández-Domínguez, 2006; Tono, 2003). Indeed, annotated learner corpora can be very instrumental in facilitating foreign language acquisition (Swanson & Charniak, 2013), foreign language teaching (Wang & Seneff, 2007), and contrastive interlanguage analysis (Granger, 2015). In the domain of annotated learner

corpora for Chinese as a foreign language, up to now only two corpora of this category are available (Lee et al. 2014): One is Chinese Proficiency Test (HSK) Dynamic Writing Corpus constructed by the Beijing Language and Culture University (Zhang & Cui, 2013); the other is the Jinan Chinese Learner Corpus (Wang et al., 2015).

Chinese Proficiency Test (HSK) Dynamic Writing Corpus was established in 2006 and ever since then it has encouraged many research efforts in exploring its possible application to teaching Chinese as a foreign language. Among such research efforts an important one is to explore the possibility of incorporating this corpus in delivering the skills of Chinese writing, especially in the aspect of identifying, rectifying and avoiding grammar-related errors. Specifically speaking, it is quite common for non-native language learners to come across a range of obstacles in foreign language acquisition and they will very likely produce ungrammatical sentences. In that vein, they need to effectively find out and correct sentences with grammatical errors. (Leacock, Chodorow, Gamon & Tetreault, 2010).

Chinese Proficiency Test (HSK) Dynamic Writing Corpus is a corpus to demonstrate what mistakes those learning Chinese as a foreign language often commit and categorizes such mistakes into different types. This corpus has clearly labelled altogether 46 types of errors, which are at character level, word level, sentence level, and passage level. In Chinese Proficiency Test (HSK) Dynamic Writing Corpus, the number of errors at sentence level is as large as 35,884. Word ordering errors (WOEs) take up the largest proportion in errors at this level.

HSK Dynamic Writing Corpus employed an annotation system to mark specific errors that were committed in each sentence. All the sentences were written by foreign students learning Chinese as a foreign language in China-based universities when they were sitting for HSK examinations. The frequency of the errors of the same type was counted and ranked. For example, the top one error type is word ordering error and the sentences containing word ordering errors quoted from Chinese Proficiency Test (HSK) Dynamic Writing Corpus were employed in the first workshop.

Here is an example to show how the errors in a sentence was annotated. {CJX} is an annotation mark used to identify the word ordering error, which is put after the phrase that is placed at the wrong order. The letter "C" refers to phrases, "J" refers to sentences and "X" refers to order or sequence. Altogether the annotation mark {CJX} refers to word ordering error at sentence level.

The following sentence can be a good example.

随着　中国的　经济　发展{CJX} 更快的，　服装市场的 需要　也将　扩大，

With Chinese economy developing quickly, Clothing Markets' need will also grow,

消费　　也会　多样化。

(and) consumption will also be diversified.

As is demonstrated in this sentence, the annotation mark {CJX} is put after the phrase "发展" (development), indicating that this phrase is placed at the wrong order. To rectify the

sentence, it is suggested that “发展” (development) should be placed after the adverb “更快地” (quickly). In that vein, the corrected version shall be as follows.

随着 中国的 经济 更快地 发展{CJX}, 服装市场的 需要也将扩大，

With Chinese economy quickly developing, Clothing Markets’ need will also grow,

消费 也会 多样化。

(and) consumption will also be diversified.

Thanks to the previously study over Chinese Proficiency Test (HSK) Dynamic Writing Corpus, the classification of errors committed by international students learning Chinese as a foreign language is made salient. Yet, to our best knowledge, none of previous studies have deemed as the focus the research of utilizing this corpus as materials for relieving language learner’s anxiety level. This is exactly what will examined in this research.

2.3 Teacher-conducted Corrective Feedback and Student-conducted Peer Feedback

Corrective feedback (CF) is commonly defined as the responses or treatments from assessors to a learner’s non-target-like foreign language production. Whether corrective feedback can facilitate or impede the process of foreign language acquisition has been a crucial and controversial topic. It is argued by some foreign language acquisition theorists that corrective feedback is of great harm to foreign language learning and should not be encouraged while others believe corrective feedback can serve as a crucial catalyst to boost foreign language development.

On one hand, those believing that corrective feedback brings more harm than benefits got their claims established on certain theories. They believed that Universal Grammar, which refers to the system of principles, conditions, and rules that are elements or properties of all human language (Chomsky, 1975), is the key element boosting language. From the perspective of these researchers, a foreign language learner can form his understanding of the structure of the language he is learning only by his innate human linguistic mechanism. Moreover, such linguistic mechanism can work well with positive evidence instead of the negative feedback. The negative feedback, or corrective feedback, will not play a role in promoting a learner' competence in language usage (Schwartz, 1993).

Another voice heard in denying the value of corrective feedback is made by Krashen (1983, 1985). Krashen (1983), in his famous Input Hypothesis, attributed the acquisition of a foreign language to the constant exposure to comprehensible input. He defined the comprehensible input as the "only causative variable in Second Language Acquisition" (p.21). As per him, only when a learner is constantly exposed to comprehensible input, namely the language structures that are one step beyond the learner's current stage of interlanguage development, can it be possible for him to experience a subconscious process of language acquisition (Krashen, 1982). In this sense, he denied the impact imposed by "any knowledge consciously learned through explicit instruction, including negative evidence", on the acquisition of a second language. As a matter of fact, when Krashen (1985) proposed his Monitor Model, the first general second language acquisition theory, he directly denied the role of corrective feedback in facilitating foreign language learning.

Krashen's view of corrective feedback was further echoed by Trucott. In 1996 Trucott, in his very influential articles, claimed that corrective feedback did not play a significantly positive role and should not be used in foreign language teaching. Trucott argued that when it comes to realistic teaching conditions, corrections was quite ineffective and the results of many meta-analysis trying to demonstrate the benefits of corrective feedback did not show a clear and strong relation between the amount of correction done and the size of the resulting effect. Yet, his very affirmative attitude towards corrective feedback did not end the debate but fuelled the desire of many researchers to show either theoretical or empirical evidence to support the value of corrective feedback.

Schmidt, in opposition to Krashen's hypothesis of comprehensible input, proposed a theory called the Noticing Hypothesis (Schmidt, 1990, 1995, 2001), holding that one advantage that can be harvested from corrective feedback is that learners can be made aware of the discrepancy between their current mastery of knowledge and the target language. In this Noticing Hypothesis, it was argued that learners must consciously notice and attach importance to the discrepancy of the how the language is used by learners and what the accepted form of the target language is. If learners can notice this gap, they will proactively catch up and this internalization process can covert the influence of corrective feedback into useful intake. In this sense, corrective feedback can be facilitative in triggering learners to be aware of the gap between their interlanguage and the target norm, which carries substantial weight for the subsequent grammatical restructuring of the target language. He also pointed out that the more attention a learner pays to corrective feedback, the better chances there will be for him to convert the corrective feedback into useful intake. In a word, as per the

Noticing Hypothesis, corrective feedback is deemed as a catalyst for foreign language acquisition.

Similarly, Bitchener and Ferris (2012) conducted a study to show that comprehensible input is not adequate to facilitate the foreign language acquisition and negative evidence in form of corrective feedback can play a vital role. The hypothesis proposed in their study is that learners can better understand the acceptable form of the target language by getting access to corrective feedback. To substantiate this point, they designed the study where foreign language learners were exposed to rich immersion instructional contexts and received comprehensible input of the target language. Yet, the findings of their study indicated that even though the participants of the study underwent great progress in terms of the fluency of the target language, they didn't show high levels of performance in certain grammatical aspects even though the exposure to the comprehensible input of the target language lasted for years. This study was claimed by Bitchener and Ferris (2012) to support the view that merely getting exposed to comprehensible input is far from being adequate to boost language learning; learners need the negative evidence provided in the form of corrective feedback or grammar instruction to understand the types of errors they make and how to revise their output accordingly. Additionally, Bitchener and Ferris also pointed out that the corrective feedback can be effective in making learners pay sufficient attention to the linguistic forms and hence gradually form the foreign language intake.

Teacher-conducted corrective feedback and peer-conducted feedback are the two commonly-adopted forms in giving students feedback on their written work. In the teacher-

given feedback, communication is conducted by the teacher to get students to understand how they performed in responding to a task. By contrast, according to Van den Berg, Admiraal and Pilot (2006), peer feedback is a process in which students access chances to review how their peers respond to a given task, make assessment and offer feedback for revisions.

2.3.1 The Advantages of Teacher-conducted Corrective Feedback in Foreign Language Learning

On one hand, teacher-conducted corrective feedback is deemed as playing a vital role in facilitating foreign language learning since students can get exposed to feedback made by teachers and then make corresponding corrections. To make teachers respond to the writing tasks of language learners has been an orthodox teaching method. This method can enable teachers to deal with the text at two levels. The surface level involves grammar, spelling, punctuation and word choice, while the deep level concerns planning and organizations and adequate substantiating evidence to support the point of view (Eksi, 2012). Traditionally speaking, teachers are regarded as responsible for providing corrective feedback to support the development of students' interlanguage systems (Lightbown & Spada, 2006). Since teachers are deemed as having knowledge superior to that possessed by students and being experienced in delivering corrective feedback in a proper manner, they are often taken as the primary and utmost providers of feedbacks (Brown, 2007; Chaudron, 1986). As Méndez & Reyez (2012) claimed, many foreign language learners prefer teachers' correction to peer

correction, believing that teachers are more likely to propose constructive feedbacks that can enhance learners' language proficiency.

The preference for teacher-conducted corrective feedback among language learners can be attributed to the following reasons. On one hand, an eligible teacher typically possesses experience and competences that pupils usually do not possess (Sadler, 1998). Such experience can help teachers to generate insights concerning how to deal with a given writing task, how to identify the typical errors committed by learners and come up with constructive suggestions to deal with the difficulties based upon the lessons drawn from previous learners. On the other hand, good teachers are often quite aware of the criteria and standards about what to be expected of learners in response to a specific writing assignments. On top of that, teachers also have the proper attitudes and dispositions towards teaching activity and leaners, often demonstrating a strong desire to help and a strong sense of empathy. When it comes to the foreign language writing skills, which is the topic of the study reported in this thesis, previous studies (Ferris & Robert, 2001; Hosseiny, 2014; Sarvestani & Pishkar, 2015; Tootkaboni & Khatib, 2014) have indicated that both written and oral corrective feedback can benefit student writers' writing development.

Empirically speaking, Bitchener (2008) conducted a study to testify the hypothesis that teacher-conducted corrective feedback can be instrumental in helping learners develop their writing competence by providing foreign language learners an opportunity to discover the discrepancy in terms of their native language system and that of the target language. By this means, they can gradually do some reflection and nurture error awareness, thus rendering it

possible for the accuracy in their written expressions to be elevated. The study indicated that compared with those in the control group who are denied the access to teacher corrective feedback, students having received corrective feedback can express in written English more accurately.

In addition, Sarvestani and Pishker (2015) carried out an eight-week-long experiment to examine the effect of teacher-made feedback. Findings show that direct corrective feedback from teachers helps improve students' grammar knowledge of English articles. Besides, face-to-face feedback enables students to gain better comprehension and longer memory of targeted grammatical features.

In addition, teacher-conducted feedback can be an incentive to boost learners' enthusiasm. Jiang et al. (2021) conducted a study to examine the associations between teacher feedback and students' motivational beliefs. The data were collected from 89,869 15-year-old students in six Western countries (the United States, the United Kingdom, Finland, Norway, Australia, and New Zealand) and six East Asian regions (Japan, Korea, mainland China, Hong Kong, Macau, and Taiwan). Findings of this study revealed that teacher feedback was positively correlated with both students' motivational beliefs both in Western countries and Asian countries. For Western students, teacher feedback was most closely related to students' intrinsic motivation. For East Asian students, teacher feedback was also most closely associated with students' intrinsic motivation. This finding is in line with previous findings that teacher feedback exerts positive impact on students' motivational beliefs (e.g., Hamidun et al., 2012; Pat-El et al., 2012).

2.3.2 The Disadvantages of Teacher-conducted Corrective Feedback in Foreign Language Learning

Yet, many scholar argued that teacher-conducted feedback also has drawbacks, which lie in the following aspects. On one hand, teachers are very often the experts in their specific domain, possessing a comprehensive understanding of the complicated information in a subject and the demands specific to a domain. This can explain why they are able to provide feedback in a holistic manner. However, it is due to their thorough insight that many learners would find it hard to fully comprehend the feedback given by teachers. Their feedbacks are often misinterpreted by language learner since it is connected to a context to which learners do not have a direct access (Hounsell, 1987; Higgins, 2000; Gibbs & Simpson, 2004; Yang et al, 2006).

On the other hand, the feasibility of offering teacher-provided feedback in improving students' writing performance has also been questioned. Many scholars regard writing as a task requiring teachers and students to devote time. Unless an adequate amount of time is devoted, it would be hard to achieve the desired results. However, the teachers' contribution in offering detailed feedback is virtually impossible due to the large size of students in one class. Even though most of teachers in language classes in my home country China where I did decades of teaching gave feedbacks to students about their submitted writing tasks, the effect has not been good. This is because the student to teacher ratio there is at best one to thirty and at worst one to over a hundred, which substantially limits the scope and intensity

of the feedback that can be offered by teachers. China is not the only country where the student to teacher ratio is high. Bransford, Brown, and Cocking (2000) claimed that feedback carries substantial weight for the process of leaning, but unfortunately students find it hard to receive it in classroom. Situations are similar in many countries, where language learning classes are of a large size.

2.3.3 The Advantages of Student-conducted Peer Corrective Feedback in Foreign Language Learning

Comparatively speaking, peer corrective feedback has won almost universal applause. Peer corrective feedback refers to a teaching approach in which language learners from small groups, working together to provide each other with feedback on their written texts (Hedgecock, 2005). The advantages of this form of feedback lie in the following aspects.

On one hand, to those who receive peer corrective feedbacks, the benefits are obvious. The first advantage is that students find it easier to comprehend the feedbacks given by their peers. Even though teachers are more professional in their specific domain, the feedback they offer often fails to deal with the problematic points that are uniquely perceived by learners themselves. Hu (2005) investigated the application of peer corrective feedback among Chinese English as a foreign language teachers and students to determine how well peer corrective feedback can facilitate the language acquisition. The findings of the study demonstrated that peer feedback was very helpful. In his opinion, it was thanks to peer feedback that the areas in which problems occurred most frequently could be discovered. This might be the reason why most participants in his study rated peer corrective feedback as

being useful. Research in higher education showed that students often perceive peer feedback as more understandable and more useful because fellow students are often on the same wavelength (Topping, 2003).

Another advantage for those who receive peer corrective feedbacks is that learners can get access to more individualized feedback. This is easy to explain. If teachers want to give students feedback in time and on a frequent basis, they have to organise it collectively; otherwise, this process would be too time-consuming. Yet, collective feedback often fails to deal with personal need. This form of feedback does not offer as many chances as individual feedback does to conduct communications. Another factor denying the power of collective feedback is that students are not likely to pose questions concerning what they are ignorant of or what they are uncertain about when they are given collective feedback. By contrast, peer feedback can compensate for this limitation of collective feedback by offering more possibilities of conducting individual interactions. Carless (2006) also maintained that students can obtain more feedback from their peers than they would normally receive from their professors and the peer-given feedbacks tend to be on a more individualized basis. The UK National Student Survey (2021) offers another crucial evidence showing that students are less satisfied with the quality of teacher feedback than with any aspect of their course. The reasons is that the feedback provided by teachers is often lack of details and teachers often fail to clarify things that students don't understand.

The third advantage that can be harvested by those getting exposed to peer corrective feedback is that their writing competence can be substantially enhanced. A succession of

studies were carried out to explore the impact of peer-written corrective feedback on learners' competence in writing (Elola & Oskoz, 2010; Ho & savignon, 2007; Ware & O'Dowd, 2008). It was revealed in these studies that corrective feedback offered by peers prompts foreign language learners to get engaged in the process of learning and handle errors of different types in a group, thus being instrumental in getting them concentrated on sentence structure and content. In addition, Hyland (2000) designed and carried out a study to explore the impact imposed by peer feedback in English as a foreign language writing classes in a university of New Zealand. A longitudinal study was implemented to examine how peer feedback could influence the academic performance of students learning English as a foreign language. The findings of the study indicated that learners receiving peer corrective feedback are more aware of their own strengths and weakness in terms of their writing and thus are more capable of making progress accordingly.

The fourth advantage concerns the affective benefits that can be yielded by peer corrective feedback. The corrective feedback given by peers has been argued to be better accepted, and able to enhance the learning motivation and reduce the anxiety. As Ferris et al. (2013) claimed, peer corrective feedback can make accessible to students a chance to engage in constructive but less intimidating insight into what they write in response to a certain task. One element that needs to be taken into account is that teachers are often believed to be superior in the class, especially under the educational context of certain Asian countries. Consequently, students may be uncomfortable in confrontation of teachers' feedback and then feel reluctant to attach less importance to the feedback. After all, the interaction between teachers and students often tends to be formal while the interaction between peers

is less frightening and anxiety-triggering. This is where the power of peer corrective feedback lies since if the environment is too formal, students will refrain from asking question concerning whatever they do not understand. A theoretical backup for this argument is that teacher-given feedback is associated with authority, emotions and identity, which may make students emotionally uncomfortable and defensive (Higgins, 2000). As a consequence, learners tend to conceal their weaknesses and doubts, which renders it hard for teachers to be fully aware of the difficulties learners are experiencing and misconceptions they are holding. In contrast, using peer feedback may eliminate difficulties since both the assessees and assessors are believed to be on the same academic stage and thus the feedback is less power-sensitive.

One empirical evidence is the study conducted by Yang et al. (2006). The study was designed to investigate the power of peer and teacher feedback. Findings of the study revealed that students studying an English Writing class at a Chinese University consider teachers as more professional, experienced and trustworthy than their peers and consequently they are more willing to revise their essays based upon the feedback given by teachers. However, this is not necessarily a good thing since the revisions made according to teachers' feedback were often at the surface level; comparatively speaking, students were more likely to make meaning-changing revisions after receiving the peer-given feedback. Moreover, peer feedback could trigger students' awareness to do self-correction. Further, this study revealed that students' learning motivation is substantially promoted. This is because reservations about peer feedback stimulate students to look for confirmation, e.g. by checking grammar books or asking the teacher, and to develop their own independent ideas for revision. In contrast,

exposure to teacher feedback lowers their initiative for self-regulated learning, perhaps because students believe that the teacher points out each mistake, leaving no need for further correction.

To examine the different influence exerted by peer and teacher corrective feedback on writing, Tsui and Ng (2000) conducted a study where participants were end-of-secondary school students. In this study, participants received two forms of feedbacks: the teacher gave collective feedback to the whole class and participants were divided into groups where they gave individualized feedback to each other. On one hand, when participants submitted their revised version of essays, most revision were based upon the teacher-given feedback; participants also commented upon teacher comments as being very useful. On the other hand, participants also believed that peer feedback played an irreplaceable role, saying that peer corrective feedback could serve multiple functions. For one thing, their sense of learning motivation was enhanced since peer feedback gave them a sense of audience. For another, the awareness of their own errors was promoted when they were reviewing the written work of their peers and this enhanced awareness led to effective self-correction.

On the other hand, students encouraged to give feedback to their peers can also harvest a lot from this process. This can be best reflected by the internalization process in the course of learning. Firstly, while giving feedback to the written response made by others, students can have a clarified vision about what goals to be achieved and what criteria as well as standards of assessment to be adopted. Being aware of the clarified goals and adopted criteria can play a facilitating role in getting them to attach more importance to these aspects in their own

writing, which is called a process of internalization (e.g. Rust et al, 2003; Bloxham & West, 2004).

Secondly, the awareness of self-regulation and self-reflection can also be formed and enhanced when students give feedback to their peers. In other words, while making feedback, students get to realize whether they have effectively learned the material. For example, commenting on others' work helps students to think about their own writing, especially in organizing sentences properly and using proper lexical resources. Some researcher further argued that adequate training is important in enhancing the benefit that can be harvested by feedback givers. Sato and Lyster (2012) discovered that those having received training to correct each other's grammatical mistakes experienced significant improvement in the aspect of grammatical accuracy. Sippel (2017) also conducted a study and made the conclusion that those taught to correct peers' vocabulary error made greater improvement on the measures of vocabulary knowledge compared with those having not received such training in offering peer corrective feedback.

Finally, peer feedback can result in less anxiety. While making feedback, they will understand that quality is not a fixed attribute and can actually be achieved through a range of ways. They will be less anxious since they will understand the committing of errors is natural and inevitable. Sato carried two studies to examine the affective aspect related to peer corrective feedback, one showing that the peer corrective feedback givers are comfortable and the corrective feedback receivers are less anxious. Sato (2007) explored the effect of peer corrective feedback on university level students learning English as a foreign language in

Japan. Results of the study showed that learners felt comfortable when giving peer corrective feedback to their classmates. Further, Sato and Lyster (2013) carried out another study to investigate the effect of peer corrective feedback with students learning English as a foreign language in Japan. Findings of the study showed that students are afraid of making errors with teachers but affective filter is lowered when they are exposed to peer corrective feedback.

In one word, previous researches have shown evidence for the argument that peer corrective feedback can make learners attach more importance to their own learning, achieve better performance and get less anxious.

2.3.4 The Limitations of Student-conducted Peer Corrective Feedback in Foreign Language Learning

However, even though peer corrective feedback has won great popularity, some researchers also cast doubt on the effectiveness of language learners receiving and giving feedbacks of this type. The questioning over the value of peer corrective feedback is mostly about two aspects. On one hand, many learners are quite suspicious about the accuracy of feedback casted by their classmates. Yoshida (2008) found that in her study, learners claimed that sometimes their trust in their partners' metalinguistic feedback is merely dependent upon whether the feedback sounded confident, indicating that many learner were quite uncertain about the reasonableness of their classmates' feedback. In this aspect, a similar view is held by Sato and Lyster (2012) who claimed that peer corrective feedback is not of high quality since it lacks a corrective force and learners merely give simple segmentation of their

partner's erroneous utterances. Another fact worth noticing that may greatly affect the effectiveness of feedback is that, as was argued by Xie, Ke and Sharma (2008), it is unavoidable that when giving feedback to each other, students may interact with less able or less motivated peers. These peers can hardly give accurate and objective feedback and will not offer constructive corrective approaches. Moreover, Miao, Badger and Zhen (2006) compared the effect exerted by peer and teacher feedback in enhancing writing performance. The conclusion the study led to was that participants tended to accept a higher proportion of teacher's feedback compared with their willingness to accept peer-made feedback. Miao, Badger and Zhen believed that the unwillingness to accept peer corrective feedback was ascribed to the notion held by participants that their peers' feedback was likely to be inaccurate.

Meanwhile, there are some studies that challenged students' ability as well as willingness to make corrective feedback. As Tsui and Ng (2000) discovered in their study concerning the impact exerted by peer and teacher feedback on writing of secondary school English as a foreign language students in Hong Kong, students are more likely to provide feedback on the surface errors and give advice that does not help revision at all. Saito and Fujita (2004) felt concerned about the findings of their study which revealed that most peer responses focused on product rather than the process of writing and they focused on sentence-level errors instead of the content and ideas presented in the writing. On top of that, many students are also unwilling to give corrective feedbacks and believe this can pose a further psychological burden on them. The study conducted by Philp, Walter, and Basturkmen (2010) showed that the learners were reluctant to give corrective feedback to their peers. Although the level of

anxiety perceived by learners when interacting with their peers was lower compared with that perceived by them when communicating with their teachers, they were not willing to provide corrective feedback to each other. They either feel pressured because they are uncertainty of their own language proficiency or because they are afraid that their corrective feedback may make their peer unpleasant and uncomfortable.

All in all, even though the effectiveness and viability of peer and teacher corrective feedback have been widely researched either theoretically or empirically, the value of peer corrective feedback in the affective aspect, especially in reducing learners' anxiety has been scarcely studied. This is the focus of research in the work reported in this thesis.

2.4 Factors Exerting Influence on Writing Performance in Foreign Language Acquisition

The Common European Framework (CEF, 2007) divided foreign language skills into two categories: receptive skills and productive skills. Receptive skills include reading and listening skills. These two skills enable language learners to comprehend the information delivered both in written and oral forms. Productive skills include speaking and writing skills, which can enable language learners to express themselves in the target language to serve communicative purposes both in written and oral forms.

Urrutia and Gutiérrez (2011) deemed writing as an important form of expression used to deliver and exchange ideas. The constant progress made in the domain modern information

and communication technologies had made writing one of the most commonly used forms of communication nowadays (Frydrychova Klimova, 2012). However, this skill may pose great challenges. The reason is that in addition to the requirement of a high proficiency of the target language (Frydrychova Klimova & Poulova, 2013), the enhancement of writing skill also entails the confidence and strong incentive of language learners. Many researches explored the factors that impede the writing performance from different perspectives. These factors include language-related elements and affective elements.

Linguistic knowledge is often deemed as the primary factor influencing writing performance. Frydrychova Klimova and Poulova (2013) conducted a study seeking to explore the challenges encountered by foreign language learners in the process of writing acquisition. The study recruited twenty first-and-third-year students majoring in Management of Tourism at a university in Czech Republic. These twenty students were studying English as a foreign language and were given a questionnaire in order to find out what may affect their writing skill in English as a Foreign Language. Findings revealed that students deem the deficiency in knowledge of vocabulary and grammar as the major obstacle affecting their writing performance. Data collected from the questionnaire indicated that students believe accurate feedback on what they have written can help them realize the errors they have made. They also emphasize that they are not able to improve their writing skills if sufficient and relevant feedback are not available.

In the domain of foreign language acquisition, linguistic difficulties have been identified as a common obstacle which may raise the affective filter of language learners and negatively

influence their writing performance. Urrutia & Gutiérrez (2011) conducted a study with focus on the development of writing short descriptive texts in English as a foreign language. The results identified the construction of sentences and grammatical errors as the most challenging difficulties influencing the writing performance of participant. Similarly, Rahimi and Zhang (2019), in their study exploring the correlation among writing task complexity, students' motivational beliefs, anxiety and their writing production in English as a second language, pointed out that linguistic difficulties are a common problem often faced by foreign language learners. If language learners are confronted with a difficult and complex writing task and feel it difficult to apply the grammar rules in various clauses or find the suitable diction to express their ideas, they may become unwilling to produce English as a foreign language writing. This will in return worsen their writing performance. This study conducted by Rahimi and Zhang indicated that the impact of anxiety would be more obviously demonstrated when the complexity and difficulty of writing tasks increased. In the present study, the linguistic difficulties encountered by participants learning Chinese as a foreign language who were at the transitional stage might be an important factor explaining their anxiety level and writing performance.

Quintero's (2008) study has not only identified linguistic element but also included affective factors in analysing how the writing in a foreign language can be influenced. On one hand, Quintero argued that problems with grammar, punctuation and lexical choice can contribute negatively to the writing performance. On the other hand, this study indicated that writing was a complicated skill to develop since it implied the use of mental processes rather than only using the structures of the language. For instance, Quintero argued that when language

learners are strongly motivated, have the option to write about what they are interested in and access proper feedback of their work, their chances of having better performance in writing will be amplified.

Kenta and Bosha (2019) conducted a study aiming at finding out grade nine students' difficulties in using writing skills in English as a Foreign Language classroom. Researchers of this study employed three research instruments - interviews, field notes and questionnaires - to find out factors that influence participants' writing performance. According to this study, factors influencing the writing skills are multiple and interrelated. Three salient challenges as identified by this study that pose critical difficulty in writing performance include language learners' inadequate knowledge about writing in English as a foreign language, the deficiency in good teaching materials, and the absence of strong motivation in enhancing writing skills.

Adwani and Shrivastava (2017) also explored the factors having an influence on writing performance from a perspective combining linguistic and affective factors. They did a study with the purport of providing an overview of five factors that may exert an effect on writing in a foreign language. The factors include vocabulary, grammar, and interference of mother tongue, self-efficacy and motivation. For one thing, linguistic competence is important for the improvement of writing skills since language is composed of vocabulary words which are synchronized by grammar and affected by first language. For another, affective factors including writing self-efficacy and writing motivation are also of great importance in promoting the writing skills of foreign language learners. The reason accounting for the importance of writing self-efficacy is that individuals' confidence in their capabilities to

perform a task determine how much effort and engagement they want to devote to the task (Bandura, 1999; Schunk & Ertmer, 2000). Performance accomplishment is a key factor for developing self-efficacy. Leaners who have had experiences of successful performance have higher self-efficacy than those students who experience repeated failure. In this sense, teachers should give learners some tasks that they can perform (Dörnyei, 2001), for the sake of enabling learners to build successful experiences in foreign language acquisition and become confident in their writing ability. Positive feedback and comments provided by the teachers can matter significantly to students' self-efficacy. Motivation is another major factor influencing the performance of foreign language acquisition. This belief is in consistence with the idea of Gomleksiz (2001), who identifies motivation as a key factor in the foreign language cognition process. According to Gomleksiz, even when students are less academically able, they can still achieve better performance if they have stronger incentive. Comparatively, those who are more capable but lack of incentive might have poorer performance. In other words, language learners who are driven and have strong incentive to write tend to perform well in writing.

To conclude, altogether six factors are commonly considered as factors causing difficulties to the improvement of writing performance among foreign languages students. Four of them are identified as linguistic factors including knowledge about vocabulary, understanding of grammar, access to proper teaching materials and interference from the native language. Two of them are deemed as affective factors including writing self-efficacy and writing motivation. However, when researchers are exploring the factors influencing the performance of writing in a foreign language, the participants of their studies are mostly

those learning English as a foreign language. The present study seeks to study whether the same factors are influencing the writing performance of those learning Chinese as a foreign language, and intends to add some evidence to the study concerning how the writing in a foreign language skill can be impacted.

Chapter Three Methodology

This chapter describes and discusses how the measures and procedures used in this study were developed. The first part of this chapter introduces the research questions that the measures were designed to answer. Then a detailed description of the three measures and study procedures employed in the pilot studies is presented. This chapter also describes the pilot work undertaken to assess the usefulness of each measure and the procedures used in the research. This includes introducing the purpose, design, participants, findings and discussions about the pilot studies and what modifications were made in the main study based on the pilot studies. Ethical considerations are also presented in this chapter.

3.1 Research Questions and Design

The study reported in this thesis was designed to answer the five research questions: (i) whether the anxiety perceived by students learning Chinese as a foreign language is associated with their writing performance, (ii) whether the incorporation of a learner corpus can reduce learners' anxiety level, (iii) whether the incorporation of a learner corpus can enhance learners' performance in writing, (iv) whether the adoption of peer correction feedback can reduce learners' anxiety level, and (v) whether the adoption of peer correction feedback can enhance learners' performance in writing.

There are three stages that construct the study and participants were randomly assigned to three groups – the Control Group, Experimental Group A and Experimental Group B. At the pre-intervention stage, three primary measures – Foreign Language Classroom Anxiety Scale, Second Language Writing Anxiety Inventory and a Writing Task – were administered among

participants of the three groups to elicit the data concerning their level of anxiety and writing performance. At the during-intervention stage, participants in each group received intervention workshops where different teaching materials and corrective feedback methods were used. In each workshop session, participants in the three groups were given a writing task to be finished within the session period. There are altogether eighteen sessions of workshops with each of the three groups taking part in six sessions. The data concerning participants' writing performance in response to the given writing task in each session were collected, coded and recorded. At the post-intervention stage, the same three primary measures assessing the anxiety level and writing performance were again administered on the participants of all the three groups to examine the interaction and intervention effect. Tale 3.1 presents a summarization of the measures and procedures at three stages of this study.

Table 3.1 A Survey of Measures and Procedures

	Control Group	Experimental Group A	Experimental Group B
Pre-intervention Stage	Measure One: Foreign Language Classroom Anxiety Scale Measure Two: Second Language Writing Anxiety Inventory Measure Three: A Writing Task (Pre-intervention Writing Task)		
During-intervention Stage	Textbook and teacher corrective feedback	Learner corpus and teacher corrective feedback	Learner corpus and peer corrective feedback
	Six sessions of intervention workshops for each group with each session including one writing task.		
Post-intervention Stage	Measure One: Foreign Language Classroom Anxiety Scale Measure Two: Second Language Writing Anxiety Inventory Measure Three: A Writing Task (Post-intervention Writing Task)		

3.2 Measures of the Study

Three Measures were used in this study to assess the anxiety level and the writing output of participants. The three measures include two anxiety-measuring measures and one measure assessing the writing performance of participants.

3.2.1 Measure One: Foreign Language Classroom Anxiety Scale

Foreign Language Classroom Anxiety Scale compiled by Horwitz et al. (1986) was used to assess the anxiety level perceived by participants concerning their in-class experience of learning a foreign language. This scale includes a total of thirty-three items (see Appendix V). A 5-point Likert-scale is used to reflect participants' responses. For example, for item 1, "*I*

never feel quite sure of myself when I am speaking in a foreign language class" (strongly agree=5; agree=4; neither agree nor disagree=3; disagree=2; strongly disagree=1), if a participant responds "strongly disagree", his/her score for the item is 1, indicating that he/she feels confident and the level of anxiety level is low. All items were coded this way so that a low score indicates low anxiety, and a high score represents high levels of anxiety. Permission to use this measure was obtained from the author through email communications (see Appendix III & IV).

On this scale, the students' language anxiety related to communication apprehension, test anxiety, and fear of negative evaluation (see literary review section 2.1.5 for details) (Horwitz, Horwitz & Cope, 1991) were measured respectively. For example, the extent to which participants agree with the statement that, "*I would not be nervous speaking the foreign language with native speakers.*" reflects their anxiety level in terms of communication apprehension. In addition, the extent to which they agree with the statement that, "*I am usually at ease during tests in my language class.*" indicates their anxiety level in terms of test anxiety. How students agree with the statement that, "*I am afraid that my language teacher is ready to correct every mistake I make."* assesses their anxiety in the respect of fear of negative evaluation. The reason for respectively measuring these three constructs of Foreign Language Classroom Anxiety Scale was to provide reference for how each construct of anxiety level may exert an impact on the writing performance of the target participants.

3.2.2 Measure Two: Second Language Writing Anxiety Inventory

The Second Language Writing Anxiety Inventory (Cheng, 2004) (English Version) was used to assess participants' perceived level of anxiety concerning their experience of writing in a foreign language. This inventory consists of 22 items in a 5-point Likert-scale and is presented in self-report questionnaire format (see Appendix VIII). For example, for item 3, "*While writing Chinese compositions, I feel worried and uneasy if I know they will be evaluated*" (strongly disagree=1; disagree=2; neither agree nor disagree=3; agree=4; strongly agree=5), if a participant responds "strongly disagree", his/her score for the item is 1, indicating that he/she feels confident and the level of anxiety level is low. Again, items were coded so that high scores indicated high levels of anxiety. Permission to use this measure was obtained from the author through email communications (see Appendix VI & VII).

This inventory consists of three constructs: somatic anxiety, avoidance anxiety and cognitive anxiety (see literary review section 2.1.6 for details). These three constructs were measured respectively to reveal how the different construct of writing-related anxiety would influence the writing performance of participants. For example, the extent to which students agree with the statement that, "*I tremble or perspire when I write English compositions under time pressure*." indicates their anxiety level in terms of somatic anxiety. The extent to which they agree with the statement that, "*Unless I have no choice, I would not use English to write compositions*." assesses their anxiety level in terms of avoidance behaviour. How students agree with the statement that, "*I'm afraid that the other students would deride my English composition if they read it*" shows their anxiety in the respect of fear of negative evaluation.

3.2.3 Measure Three: Writing Tasks and Assessment

This section introduces the two writing tasks assigned before and after the intervention stages and the scoring system for these two writing tasks. This section also introduces the six writing tasks assigned to participants during the six intervention sessions and the scoring system used for these six writing tasks. There were altogether eight writing tasks used in the study.

3.2.3.1 Pre-and-post Writing Tasks and the Scoring System

There were two writing assignments based upon the Chinese Proficiency Test (HSK) Level Five (See chapter 2.2.4 for discussion on HSK), one used at the pre-intervention point and the second used as post-intervention assessments. These two writing assignments required participants to write a paragraph that includes five keywords given in the instruction. Participants were required to write a paragraph of around eighty characters (minimum seventy five and no maximum limit) within thirty minutes. Both assignments measured participants' writing competence, and they were developed to be as equivalent as possible in terms of what they were assessing and in terms of the procedures used during their application.

The scoring system adopted in this research was based on the scoring system published by Chinese Testing International for assessing the writing task in Chinese Proficiency Test (often referred to as HSK Test) Level Five (The description of this scoring system is available from *http://www.chinesetest.cn/userfiles/file/HSK-pingfen.pdf*). Chinese Testing International is an independent legal entity sponsored solely by the Office of Chinese Language Council

International (Hanban 汉办)/Confucius Institute Headquarters to administer the HSK tests. The reason for basing upon this scoring system is that this is the only scoring system directly targeted at assessing international students learning Chinese as a foreign language and designed to assess the keyword-based writing as required in HSK Level Five. The participants of the main study reported in this thesis are international students learning Chinese as a foreign language and they are at the stage of learning keyword-based writing. This scoring system, which consists of four ranges, is described as follows.

0: the participant does not attend or does not attempt in any way to respond to the writing task.

Low Range: not all the five given keywords are used and/or some keywords are used incorrectly; less than seventy-five characters are written; contents are not organized and sentences are not linked by cohesive devices; there are many grammatical errors; there are many characters that are miswritten and the ability to use a range of vocabulary to clearly convey meaning is quite limited.

Intermediate Range: all the five given keywords are used; there might be errors in using these five keywords; less than seventy-five words are written; the contents are organized but not in a good way and some cohesive devices are used to link sentences; there are a few grammatical errors; there are a few characters that are miswritten and a limited range of vocabularies are used to convey meaning

High Range: all the five given keywords are used correctly; around eighty characters are written in the paragraph (minimum seventy-five and no maximum limit); the contents are

well organized and effective cohesive devices are used to link sentences; there are almost no grammatical errors; there are almost no miswritten characters and a wide range of words are used to convey meanings.

Though this scoring system has been used to assess the keyword-based writing in HSK Level Five, there is a flaw in this system: there are only four ranges (0, low range, intermediate range and high range) , rendering it hard to differentiate the writing performance of the large cohort of participants that are expected to get involved in the present study. In this context, in the first pilot study the scoring system was expanded to a zero-to-twenty range. In addition, to better distinguish which aspect of writing can be improved by the intervention methods, the scoring system also draws references from the four sub-scales (Task Response, Coherence and Cohesion, Lexical Resources, Grammatical Range and Accuracy) included in the IELTS scoring system. The reason to draw reference from IELTS scoring system was because this system is largely consistent with the scoring system as described above published by Chinese Testing International in assessing the writing output in accordance with four sub-scales: Task Response (whether all the five given keywords are used and/or used correctly; whether around eighty characters are written); Cohesion and Cohesiveness (whether the contents are well organized and whether effective cohesive devices are employed); Lexical resources (whether characters are correctly written and whether a range of vocabularies are employed to convey meaning); Grammatical Range and Accuracy (whether grammatical errors are committed and/or whether a range of grammatical structures are used).

Therefore, based upon the scoring system published by Chinese Testing International and with reference drawn from IELTS scoring system, the first pilot study employed a scoring system ranging from zero to twenty and consisting of four sub-scales. Candidates in the first pilot study received scores on each of the four sub-scales; these four sub-scales were equally weighed. An example of the writing task and a detailed description of the different ranges of the scoring system are as follows.

The following writing assignment was the pre-workshop assignment.

Directions: please use the following five phrases to write an article of around eighty characters. You have thirty minutes to finish this assignment. Be sure to use all these five phrases.

压力（pressure）、适合(suitable)、缓解(relieve)、乐观(optimistic)、 偶然(accidental)

After students completed this writing task, the outputs were assessed using the following scoring system.

i. Task Response (0-5). Scores range from 0-1 (scores which indicate that the participant does not attend or fails to employ the five given keywords) to 4-5 (scores which indicate all the five given keywords are used correctly and more than seventy-five characters are written).
ii. Cohesion and Coherence (0-5). Scores range from 0-1 (scores which indicate that the participant does not attend or has very poor writing since sentences do not logically connect, or the whole paragraph does not contain one controlling idea)

to 4-5 (scores which indicate excellent to very good output suggesting that effective cohesive devices are used to make sentences stick together and the whole paragraph contains one controlling idea and is well organized).

iii. Lexical Resources (0-5). Scores from 0-1 (scores which indicate that the participant does not attend or has very poor writing determined by the inability to use a range of vocabulary to convey meanings and the inability to write the characters correctly to 4-5 (scores which indicate excellent to very good output suggesting that the participants has mastered a range of vocabularies to convey meanings).

iv. Grammatical Range and Accuracy (0-5). Scores range from 0-1 (scores which indicate that the participant does not attend or has very poor writing determined by virtually no mastery of sentence construction rules) to 4-5 (scores which indicate excellent to very good output suggesting effective constructions and few grammatical errors).

While the use of this scoring system can help to assess the writing output objectively, there is still the possibility that the subject elements such as the personal traits of the assessors will exert an impact. Given this, there were two independent assessors, one being the researcher herself and the other being a teacher who had been teaching the course of writing in Chinese as a foreign language for seven years. The submitted writing work was coded by numbers and remained anonymous while being assessed.

3.2.3.2 Six During-intervention Writing Tasks and the Scoring System

There were another six assignments assigned to participants during the six intervention sessions. Each session included one writing task, which required participants to write five individual sentences based upon five keywords given in the instruction. There was no limit for the length of the sentence nor requirement for the minimum number of characters. This was out of the consideration concerning the limited time available for participants to finish writing within fifteen minutes during each intervention session. These assignments were developed to track participants' performance in writing.

A scoring system ranging from zero to two was used to rate the participants' performance in each sentence. Altogether for the five sentences they wrote in each session, they received a score ranging from zero to ten. The scoring system used to assess the writing output during the intervention stage was consistent with the one used to assess the writing output before and after the intervention stage. The researcher also assessed the writing using four sub-scales, namely Task Response, Cohesion and Coherence, Lexical Resources, and Grammatical Range and Accuracy. Yet, the assessor only gave a holistic score with these four sub-scales considered and only the holistic score was recorded. This was done due to the large quantity of assignments to be assessed. Also, the assignments at the during-intervention stage were only assessed by one assessor. This was also because of the large quantity of assignments to be assessed. The data elicited from participants' output in doing the during-intervention writing tasks was for the purpose of examining whether there were differences in their writing performance during the intervention stage.

3.3 Pilot Studies

To determine whether the measures are reliable and feasible before they were employed in the main study, two pilot studies had been conducted. The first pilot study was performed in China in a face-to-face manner. The second pilot study was performed in New Zealand online. Though the two pilot studies were carried out in two different countries, all participants were international students learning Chinese as a foreign language and they were all enrolled at Grade Three student in a Chinese university.

3.3.1 Pilot Study One

3.3.1.1 Description of Measures and Procedure

Table 3.2 An overview concerning the Measures and Procedure Used in the First Pilot Study.

	Experimental Group A	Experimental Group B	Functions
Pre-intervention Stage	Measure One: Foreign Language Classroom Anxiety Scale Measure Two: Second Language Writing Anxiety Inventory Measure Three: A Writing Task		To test the reliability and feasibility of three measures
During-intervention Stage	A learner corpus as teaching materials and teacher corrective feedback	A learner corpus as teaching materials and peer corrective feedback	To test the feasibility of intervention methods
	Two sessions of during-intervention workshops for each experimental group with each session including one writing task.		

A pilot study was conducted to trial the two anxiety questionnaires, the procedures for the writing task, and two workshop sessions prior to their use in the main study. Given that the measures showed the expected levels of reliability and variability in performance across individuals, then they would be used in the main study. Trialling the workshops served the purpose of ensuring that they are practical and appropriate for the students – students in the pilot gave informal feedback to the research/tutor about the workshop as part of ensuring they were performed appropriately. The pilot study followed similar procedures to those planned for the main study, except that the questionnaires and writing task were performed once only and there were only two workshops rather than six as carried out in the main study.

3.3.1.2 Participants and Recruitment Procedure

The pilot study was conducted in the same international college of a China-based university as the main study and students took part on a voluntary basis. The measures and procedures were not stressful for the students since these were not the sort of tests that they are required to complete as part of their studies. The students' participation and what they did as part of the research would not influence their studies in any way since the researcher herself was not a teacher in the college and did not get involved in any assessment of student's course work. This was clearly explained to potential participants as part of the informed consent process.

A notice was posted on the main bulletin board of the international college where the study was intended to take place. The notice gave a brief introduction to the study and expressed the intention to recruit potential participants. Those who were interested contacted with the

researcher either by emails or by phone calls. During the communications over phone or emails, potential participants were invited to report their email address to which the electronic version of information sheet and consent form were sent, and they were told that the pilot study would take place on Wednesday nights (7 p.m. to 8:30 p.m. for the first week and 7 p.m. to 8 p.m. for the following two weeks) for three weeks consecutively. On the first Wednesday nights the researcher distributed a printed copy of information sheet and consent form and potential participants needed to hand in the signed consent form before they gave response to the two anxiety-measuring questionnaires and one writing-measuring task. On the following two Wednesday nights they took part in two workshop sessions. There were altogether 25 participants voluntarily joining in the first pilot study and all the participants were from Grade Three students in the international college. Twelve participants were randomly selected to be in Experimental Group A (Textbook Materials and Teacher-conducted Feedback) and 13 were randomly selected to be in Experimental B (Learner Corpus and Peer Corrective Feedback). Participants were coded with letters showing which group they were in: the participants in the Experimental Group A were coded from EGA 01 to EGA 12, the participants in the Experimental Group B were coded from EGB 01 to EGB 13.

3.3.1.3 Findings

The section of findings presents the results of data analysis concerning the reliability of each measure and the statistical data about participants' anxiety level and writing output.

First of all, for the reliability of the measure to be assessed, the data collected through the three measures were coded and analysed through a statistical analysis programme (SPSS version 25). The assessment over the internal consistence reliability of Foreign Language

Classroom Anxiety Scale and Second Language Writing Anxiety Inventory calculated based upon participants' response to each item indicated that the Cronbach's Alpha reliability was rated at .91 and .88 respectively. Writing Scale were calculated by looking at responses to each item within each of the questionnaire scales and with each construct of these two scales. Coefficients for the four sub-scales of writing (Task Response, Coherence and Cohesion, Lexical Resources and Grammatical Range and Accuracy) were calculated by inputting the scores given by the two independent raters. Values around .7 are considered acceptable; values above .8 are regarded as good (Pallant, 2007). The results concerning the reliability of all the three measures and their respective constructs or sub-scales are presented in Table 3.3.

Table 3.3 Internal Consistency Coefficient Table (Pilot Study One)

Measure Instruments		Internal Consistency Coefficient
Foreign Language Classroom Anxiety Scale	Total Score	.91
	Communication Apprehension	.78
	Fear of Negative Evaluation	.71
	Fear of Tests	.89
Second Language Writing Anxiety Inventory	Total Score	.88
	Somatic Anxiety	.85
	Cognitive Anxiety	.73
	Avoidance Behavior	.77
Writing Score	Total Score	.74
	Task Response	.72
	Coherence and Cohesion	.76
	Lexical Resources	.77
	Grammatical Range and Accuracy	.81

In addition, the pilot study was designed to substantiate the feasibility of measures and procedures in the experimental classes in future main study. There were two measures employed in this pilot study to assess participants' level of anxiety in the process of learning a

foreign language: Foreign Language Classroom Anxiety Scale and Second Language Writing: Foreign Language Classroom Anxiety Scale and Second Language Writing Scale.

Table 3.4 Descriptive Statistics of Anxiety Scores Measured by Foreign Language Classroom Anxiety Scale, Second Language Writing Anxiety Inventory and their Respective Constructs

Scale	The Measure and its Constructs	Total Possible score range	Range (Min to Max)	Mean	SD
Foreign Language Classroom Anxiety Scale	Total Score	33 to 165	58 to 139	99.52	20.96
	Communication Apprehension	11 to 55	17 to 53	36.21	7.33
	Fear of Negative Evaluation	7 to 35	10 to 33	22.69	6.55
	Fear of Tests	15 to 75	26 to 70	45.59	8.23
Second Language Writing Anxiety Inventory	Total Score	22 to 110	48 to 92	64.60	15.28
	Somatic Anxiety	7 to 35	8 to 33	23.19	5.78
	Cognitive Anxiety	8 to 40	11 to 35	25.01	5.32
	Avoidance Behavior	7 to 35	9 to 32	23.22	4.69

Findings of the pilot study revealed that for these two measures, there was significant variance among the responses presented by each participant and all the participants finished answering all the questions in the questionnaire. This result showed evidence for the feasibility of these three measures.

Furthermore, the pilot study also examined the feasibility of using the keyword-based writing task and a scoring system to assess the writing output of participants.

The instructions for the writing task in the first pilot study are as follows.

Directions: please use the following five phrases to write an article of around eighty words. You have thirty minutes to finish this assignment. Be sure to use all these five phrase.

开车（drive a car）、劳累(tired)、要是（if）、车祸（traffic accident）、后悔（regret）

Participants in this pilot study received scores on a scale from 0 to 20. A score ranging from zero to five was awarded based upon students' performance in four respects respectively, namely Task Response, Coherence and Cohesion, Lexical Resources and Grammatical Range and Accuracy. An overall score ranging from 0 to 20 was given with the scores assessed in these four respects added together. Data collected from the response of each participant are presented in Table 3.5.

Table 3.5 Descriptive Statistics concerning Participants' Pre-intervention Writing Performance

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Task Response	25	6	0	5.	3.36	1.38
Coherence and Cohesion	25	6	0	5	3.52	1
Lexical Resources	25	5	0	4	2.54	.83
Grammatical Range and Accuracy	25	5	0	4	2.88	.93
Writing Task Total	25	18	0	17	12.30	3.75

As can be observed from Table 3.5, the mean scores for both the whole scale and the sub-scales of Task Response and Coherence and Cohesion did not approach the total possible score nor the minimum score for the test, indicating no obvious evidence of ceiling or floor effects that could restrict the variability of the measures. However, the variability in terms of the scores reflecting the lexical resources and grammatical range and accuracy of participants revealed that the scores were not spreading out across the possible score range. The reason might be that in the instruction of the writing task, the phrase "劳累（tired）" was included as one of the keywords, but more than half of the participants were confused about how to use this phrase and this led to errors both in Lexical Resources and in Grammatical Range and Accuracy. Another concern was that even though a zero-to-five range for each subscale

worked well with a cohort of twenty five participants, this might not work well for a cohort of more than a hundred participants.

The final purpose of this pilot study was to test whether the teaching materials would be appropriate for the participants. This was tested through two sessions of workshops. Half of those students attending the workshops were randomly assigned to be in Experimental Group A, where the learner corpus was used and teachers introduced grammatical principles, demonstrated samples quoted from learner corpus, invited students to write in class and then made corrective feedback. The other half of the participants experienced the second set of workshops in which both the learner corpus and peer feedback correction were adopted: the teacher demonstrated samples quoted from learner corpus similar to the first workshops, and invited participants to write in class. Then participants were asked to provide peer corrective feedback on the writing output of each other. All the participants finished finishing the writing tasks assigned in the workshop sessions. However, in the workshop sessions, participants used their own computers to access the materials quoted by the instructor from the learner corpus and this access to computers also facilitated the access to online resources. Informal communication with some of participants revealed that participants were afraid that their classmates would have a negative comment on them if they committed many errors in the writing output. In this context, some participants used translation tools online to finish their writing tasks. This led to the result that seven participants got full scores for their writing tasks in the workshop sessions and their outputs were very similar.

3.3.1.4 Amendments based on the results of the first pilot study

Some changes were made based on the outcome of the first pilot study. The informal comments and feedback from participants were also taken into consideration for amendments references.

First of all, even though all the participants finished answering all the items of the two anxiety-measuring questionnaires and writing a keyword-based composition in Chinese, they suggested that a ten-to-fifteen-long break after the questionnaire part would make them more comfortable in doing the writing task. Secondly, the researcher noticed that when the materials quoted from the learner corpus were distributed to participants through online channels and electronic devices were necessary in the process of learning, it would be inevitable for some participants to refer to some online resources in doing their writing tasks. The researcher thus decided to distribute all the learning materials in printed handouts and required that no electronic devised should be employed in the intervention sessions. Another change was about the scoring system to be adopted in the main study. To ensure that enough variability could be achieved to distinguish the performance of more than a hundred participants, the researcher expanded the scoring system from a range of zero to twenty to from one to a hundred. A detailed description of the scoring system ranging from zero to a hundred is presented as follows.

Task Response:

21-25: Fully respond to all the requirements of the writing task. All the five given keywords are used correctly even though there might be errors in using one or two keywords; over seventy-five characters were written.

16-20: Respond only to major requirements of the writing task. One given keyword is not used and/or there are certain errors in using the keywords; over seventy-five characters are written.

11-15: Respond only to parts of the task requirements. Two to three given keywords are not used and/ or there are many errors in using the keywords; less than seventy-five characters are written.

6-10: Respond only to parts of the task requirements. Most of the given keywords are not used and/or most of the keywords are not correctly used; a very limited number of characters are written.

1-5: Does not attend or does not attempt the task or the response is not or barely related to the task.

Coherence and Cohesion:

21-25: Information is presented in a logical manner. A wide range of cohesive devices are adopted with efficiency to strengthen the relationship within a sentence or between sentences.

16-20: The organization of the whole passage is understandable. A range of cohesive devices are adopted but there are many errors when such devices are used to organize sentences or to link sentences up.

11-15: The organization of the whole passage is not logical. Sentences are linked together, but there are errors in using the cohesive devices.

6-10: Sentences are scattered without a controlling idea. A very limited range of cohesive devices are used and most of the cohesive devices are used incorrectly.

1-5: Does not attend or does not attempt the task or the response is not or barely related to the task.

Lexical Resources:

21-25: A wide variety of vocabulary is used in an appropriate manner and most of the characters are correctly written.

16-20: A variety of vocabulary is used, but occasional minor errors occur. Some characters are wrongly written, though this miswriting does not cause serious difficulty for the reader.

11-15: A limited range of vocabulary is used. Many characters are wrongly written and this may cause serious difficulty for the reader.

6-10: a very limited range of vocabulary is used with basically no control of character writing. Some of the vocabulary is repeated many times.

1-5: Does not attend or does not attempt the task or the response is not or barely related to the task.

Grammatical Range and Accuracy:

21-25: A wide diversity of sentence structures are used in an error-free way.

16-20: A diversity of sentence structures are used but many errors or inappropriate usages occur, though these errors do not cause serious difficulty to the reader.

11-15: A very limited range of sentence structures are used and many errors or inappropriate usages occur and these errors cause serious difficulty to the reader.

6-10: Cannot use any sentence structures correctly.

1-5: Does not attend or does not attempt the task or the response is not or barely related to the task.

3.3.2 Pilot Study Two

3.3.2.1 Background and purpose of the second pilot study

In the year 2019, the outbreak of coronavirus impacted the design of the study and changes had to be made accordingly. In the previous application, the participants of the research were identified as international students learning Chinese as a foreign language in China. However, the head of the college where data were to be collected later in 2020 contacted the researcher in May, 2019, informing her that there would be changes to the number of international students who would be studying in China that year. Very possibly, due to the uncertainty brought by the virus and the impact of the restrictions on international travel, the vast majority of international students would not return to China to pursue their study: they were likely to either suspend/terminate their study, or complete their studies online. As a consequence, the researcher was unlikely to be able to complete all of the research with this cohort. The uncertainty of the situation made it necessary to collect some data both with a smaller cohort of international students and with an alternative cohort of students to complete the PhD research.

The plans were then revised to include Chinese students studying English as their major. All the research measures, research design and research targets would remain the same, but this additional cohort of students were more likely to provide adequate evidence needed to complete the research. These students would be back on campus from the 16th of May and

the number of participants could exceed 200. For this change approval was given by Educational Research Ethics Committee, and an email confirming this was attached in the appendix.

However, the pandemic situation deteriorated and it proved to be virtually impossible for the researcher to travel back to China to conduct the face-to-face intervention. In 2020, it was realized that another pilot study and the main study had to be carried out online. The online study would be carried out using the previously planned data collection and teaching sessions. There would be no changes to the measures used in the study and the teaching sessions would be the same except for the mode of presentation (i.e., an online teaching format instead of a face-to-face classroom format). To prove that the online implementation of main study would be feasible, the second pilot study was carried out in August, 2020.

3.3.2.2 Participants and Recruitment Procedure

An online data collection system called Tengxun Questionnaire was adopted in the pilot study to assess the appropriateness of the measures. This is a Chinese based online questionnaire system similar to the Qualtrics system used at UC – Chinese students often find it difficult to log into Qualtrics. A Quick Response (QR) code would be generated once the questionnaire was compiled and this QR code would be posted together with an invitation letter in the existing QQ (A Chinese Social Media Platform) chat group for the current Grade Three students. Those who were interested scanned the QR code and began reading the information sheet and decided whether to participate in the study. If they agreed to participate in the study by clicking on the button "Yes, I have read through the information

sheet and I want to participate in the study", they started the process of filling in the study questionnaires and the writing measure. The information of each participant (including their demographic information) was kept strictly anonymous.

Consistent with plans outlined in the original face-to-face pilot study, these students were made aware that participation in the pilot study was voluntary and that they could withdraw from the study at any point. They were told that the work done as part of their participation will not affect their course grades, and that participation and withdrawal from the study will not affect their university studies in any way.

In the online pilot study, altogether 19 students participated, with 10 in Experimental Group A (Learner Corpus and Teacher-conducted Feedback) and 9 in Experimental B (Learner Corpus and Peer-based Feedback). All the participants finished pre-intervention tests and attended one session of sample class. In the writing assessment, the scoring system ranging from one to a hundred was adopted. For the teaching sessions, the online meeting system called Tengxun Meeting was used. This is a China-based online meeting system similar to the Zoom system used at UC. The reason why the researcher was not planning to use Zoom is that this system was not stable to the individual users in Mainland China from August 2020. This Tengxun Meeting platform is the same system as the Tengxun Questionnaires survey system. The two systems have the same security systems and student safeguards, and are being used widely within the university sector in China for the purpose of online teaching/surveying.

3.3.2.3 Findings

Table 3.6 showed that participants were able to understand each item of questionnaire and gave reasonable responses to the writing task requirement within the required time. Table 3.6 also showed that both the two anxiety measures and the writing-assessing measure are highly reliable. Values around .7 are considered acceptable; values above .8 are regarded as good (Pallant, 2007).

Table 3.6 Reliability of each measure and statistic description of participants' anxiety level and writing performance

Name of the Measure	Number of Items	Total Possible Score Range	Range	Mean	Std. Deviation	Reliability
Foreign Language Classroom Anxiety Scale	33	33-165	81	99.52	20.96	.91
Second Language Writing Anxiety Inventory	22	22-110	44	64.60	12.96	.85
Writing Task	4	0-100	85	64	18.75	.88

3.3.2.4 Discussion

Results from the second pilot study indicated that both the three measures and procedures of the study were practical and feasible. The scoring system ranging from zero to a hundred offered a clearer vision about the discrepancy in writing output of participants. Even though the second pilot study was carried online, the researcher conveyed to participants a clear

idea that all the submitted writing work would be kept strictly anonymous and the peer reviewer had no idea about whose work they were reviewing. Informal communication with participants after the workshop sessions indicated that participants understood that the study was conducted only for research reasons and would not affect their academic performance in the university in any way.

Based on the results of these two pilot studies, the three measures to be used in the main study were proved to be reliable and feasible no matter they were administered face-to-face or online. The intervention methods of using both textbook and learner corpus as teaching materials and using both teacher corrective feedback and peer corrective feedback were proved to be feasible. The pilot studies also showed that the two writing tasks administered at the pre-and-post intervention points were feasible and the scoring system ranged from one to a hundred was tested and showed reliability. Similarly, the six writing tasks administered at the six sessions of intervention workshops organized respectively for three participating groups were tested to be feasible.

3.4 Ethical Consideration

Adequate importance was attached to the research ethics. Before pilot studies and the main study were carried out, sufficient care was taken to consider whether the research would lead to any harm or discomfort to the participants in all the three groups. All the participants were distributed the information sheet and consent form, which clearly stated the purposes of the study and the anonymity as well as confidentiality of all the information of the participants. It was also made clear in the information sheet and the consent form that the participation was voluntary, the participation would by no means influence their

performance in the normal study and the researcher was not a teacher in the college where the study was conducted. They were also informed that they have the right to withdraw from the study at any time. All the participants signed the consent form before they took part in the study. Pilot studies and the main study was carried out after the ethics committee of University of Canterbury granted approval (See Appendix X for details of the letter of permission from Ethics Committee).

Chapter Four The Main Study: Design and Findings

This chapter starts with an introduction to the participants and research procedures employed in the main study. This chapter then moves on to present how data in the main study were analysed and what the main findings were.

4.1 Introduction to the Main Study

The final design of the main study was developed and revised based upon the results of the two pilot studies. This section gives introduction to the identity of participants, the recruitment process and the research procedures.

4.1.1 Participants and the Recruitment Process

The study comprised 117 participants, among whom 54 were males and 63 females. Three of the participants decided to withdraw from the study after the pre-test data collection and two other participants withdrew after the first workshop ended. They did not declare their reasons for withdrawing from the study. As a consequence, there were 112 participants who finished the whole process of the study. The average age of the participants was 22, with the standard deviation being 1.46.

All the participants were enrolled as international students majoring in Civil Engineering or International Commerce in a China-based University. When the intervention was conducted, the participants had studied Chinese for two years in China and Chinese was a compulsory course for them. All the major-related courses were delivered in English by native English speakers. These students had 14 Chinese language courses on a weekly basis, covering

Intensive Chinese Reading, Extensive Chinese Reading, Chinese Listening, Chinese Speaking, and Chinese Writing. All the Chinese-related courses were delivered in Chinese by native Chinese speakers. Participants had had no experience of living in China and no Chinese language courses before they were enrolled in the current University in September, 2018.

All the students in Grade Three were welcomed. They received an electronic invitation and if they were interested, they could click at a link in the invitation, which would lead them to a specific introduction to the content of the seminar and the information sheet of the study. Upon reading through all the information, they can choose to click on the button, "Yes, I have read through the information sheet and I want to participate in the study" or click on the button "No, I have read through the information sheet and I don't want to participate in the study". This seminar was not in any way related to Grade Three curriculum and they could choose not to attend if they did not want to, or they could choose to quit at any point of the study and they didn't need to give any explanation (This was made clear in the Information Sheet distributed to possible candidates of participants). When the study was conducted, the researcher was a staff member of the same university, and employed as a lecturer in the Foreign Language Institute. She was not a faculty member of the International college where the study was conducted.

4.1.2 Research Procedure of the Main Study

In order to answer the research questions, the main study consisted of four phases:

4.1.2.1 The First Phase

Participants were invited to complete two questionnaires: the Foreign language classroom anxiety scale (Horwitz et al., 1986) (English Version) and The Second Language Writing Anxiety Inventory (Yuh-show Cheng, 2004) (English Version). These same students were required to write a paragraph of around eighty characters based on five given keywords without the use of dictionaries and/or electronic devices. Upon the completion of these two sections, the data concerning the anxiety level of students were collected and their writing assignments were assessed.

In order to ensure the accuracy of the writing scores assessing this assignment, these papers were rated by two Chinese teachers teaching in the University, one being the researcher herself and the other being a teacher who used to teach Chinese in the International College and at the time of the study was teaching English in Foreign Language Institute of the same university. The final scores were calculated by taking the mean of the total of the two scores independently given by the two raters. Inter-rater reliability was measured to ensure the reliability of the rating.

4.1.2.2 The Second Phase

At this stage, students were invited to attend six workshops. They were randomly distributed to three groups. Thirty nine participants distributed to the control group accessed traditional methods of teaching where the teacher employed the teaching material from a textbook and conducted teacher-made corrective feedback. After the class, the teacher assessed the five

sentences by assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

Table 4.1 Sample Class Demonstration of Control Group

Control Group	Duration	Content
(39 participants) (55-60mins）	10 mins	The teacher introduces the basic principles concerning how to arrange a sentence in the correct word order.
	20 mins	The teacher demonstrates an article quoted from the native corpus and explains how the words are organized in sentences.
	15 mins	Five keywords are presented on the screen and the participants write five sentences individually, paying special attention to the word order.
	10 mins	The teacher collects the work done by participants and makes in-class corrective feedback upon the typical errors committed by participants in terms of word order. After the class, the teacher will assess the five sentences by assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

Thirty eight participants distributed to Experimental Group A took part in workshop sessions in which the learner corpus was used and teachers introduced grammatical principles, demonstrated samples quoted from learner corpus, invited students to write in class and then made corrective feedback. After the class, the teacher assessed the five sentences by assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

Table 4.2 is the sample class demonstration of the Experimental Group A.

Table 4.2 Sample Class Demonstration of Experimental Group A

Experimental Group A	Duration	Content
(38 participants) (55-60mins）	10 mins	The teacher introduces the basic principles concerning how to arrange a sentence in the correct word order.
	20 mins	The teacher demonstrates ten sentences quoted from the learner corpus and explains the typical word order errors committed by international students learning Chinese as a foreign language.
	15 mins	Five keywords are presented on the screen and the participants write five sentences individually, paying special attention to the word order.
	10 mins	The teacher collects the work done by participants and makes in-class corrective feedback upon the typical errors committed by participants in terms of word order. After the class, the teacher will assess the five sentences by assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

Thirty four participants distributed to Experimental Group B experienced a series of workshops in which both the learner corpus and peer feedback correction were adopted. The teacher demonstrated samples quoted from learner corpus, similar to the first workshops, then presented five keywords based upon which participant were required to write five sentences. Then participants provided peer corrective feedback on the written task accomplished by each other. After the class, the teacher assessed the five sentences by

assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

Table 4.3 is the sample class demonstration of the Experimental Group B.

Table 4.3 Sample Class Demonstration of Experimental Group B

Experimental Group B	Duration	Content
(34 participants) (55-60mins）	10 mins	The teacher introduces the basic principles concerning how to arrange a sentence in the correct word order.
	20 mins	The teacher demonstrates ten sentences quoted from the learner corpus and explains the typical word order errors committed by international students learning Chinese as a foreign language.
	15 mins	Five keywords are presented on the screen and the participants write five sentences individually, paying special attention to the word order.
	10 mins	The teacher collects the work done by participants, distributes the work anonymously among participants to carry out peer corrective feedbacks, recollects the work and gives it back to each participant. After the class, the teacher will also assess the five sentences by assigning a score ranging from 0 to 10 to each sentence in order to track the progress made by each participant.

4.1.2.3 Third Phase

All participants in the study (except for the five participants who withdrew from the study half-way) completed a post-test which measured the students' anxiety level as well as their writing skills – similar to the assessment used prior to the workshops. Comparisons of gains

between pre and post measures across the two experimental groups and the control students were used to assess the effects of using the corpus – and comparisons between the two experimental groups were used to assess the impact of the peer feedback procedures.

Table 4.4 is a summary of intervention methods for each study group.

Table 4.4 Summary of Intervention Methods

Research Groups	Textbook	Learner Corpus	Teacher Corrective Feedback	Peer Corrective Feedback
The Control Group	Yes		Yes	
Experimental Group A		Yes	Yes	
Experimental Group B		Yes		Yes

4.1.2.4 The Fourth Phase

Two additional series of workshops were organized from March 1st, 2021 till June. 16th, 2021 based on the most effective methods identified by the research. Each series of workshops was composed of three sessions. These workshops were available to all the students who took part in the study and who were interested and willing to attend.

4.2 Data Analyses and Main Findings of the Main Study

Analyses of the data collected before, during and after the intervention were conducted using the Statistical Package for Social Sciences (SPSS, version 26).

In order to answer the research question concerning whether there is a relationship between anxiety level perceived by those learning Chinese as a foreign language and their writing performance, correlations were calculated between the writing scale scores and the constructs of the two anxiety scales for the whole cohort at the pre-intervention stage. Correlation analyses provided an indication of the potential basic relationships between these two factors before any teaching effects in the study. These analyses were performed on the pre-intervention data since the intervention methods were designed to reduce anxiety and improve writing, which may influence any simple relationship between anxiety and writing performance across the cohort of students: i.e., the effects of intervention may lead to differing relationships between the groups experiencing the different intervention methods.

In addition, one-way analyses of variance were conducted on the pre-intervention data. The purpose was to examine whether there were statistically significant difference in the anxiety level and writing performance between three groups. These analyses were important since any differences of the post-intervention data between groups might be influenced by differences in the pre-intervention data. For example, a group with overall larger scores in the pre-intervention data might not show much improvement due to having reached a near-

maximum level of performance. Showing that the groups were close to each other in terms of performance at the start of the study means that all groups had the same opportunity for improvement.

Additional research questions also asked whether the employment of the learner corpus and the peer corrective feedback played a role in enhancing participants' writing output and reducing their anxiety levels. During-intervention data were presented to track the performance of each participant during the intervention process. In addition, one-way analysis of variance with post-hoc results reported (Scheffe) was conducted to find out whether there were statistically significant difference between three groups which got exposed to different intervention approaches.

Finally, pre-and-post-intervention data analyses were performed. These included two-way analyses of variance that focused on determining whether the interaction effects were significant. These would indicate whether there was a difference in improvement between the three groups of students across the two time points (namely before and after the intervention process). A significant interaction effect was followed by one-way analyses of variance, with post-hoc (Scheffe) analyses, focusing on the post-intervention data only. These were the same analyses as carried out on the pre-intervention data and were only conducted on measures, constructs or sub-scales where the interaction effect was significant. Significant one-way analyses of variance were followed by pairwise comparisons assessing any differences between the Control Group, Experimental Group A and Experimental Group B.

The overall aim was to show any specific intervention effect of the learner corpus and of peer corrective feedback.

4.2.1 Pre-intervention Data Analysis

Pre-intervention analyses were conducted for three purposes. Firstly, reliability calculations were used to provide evidence for the reliability of the measures used with the sample. Secondly, one-way analyses of variance were used to show that the random allocation of participants to the three groups did not lead to major differences between the groups in the study measures prior to the intervention. In addition, correlation analyses were conducted to explore the answer to the research question concerning whether the anxiety level perceived by students learning Chinese as a foregin language is associated with their writing performance.

4.2.1.1 Reliability Test

Cronbach's alpha was used to show degree of internal consistency of Foreign Language Classroom Anxiety Scale and its three sub-constructs, Second Language Writing Anxiety Inventory and its three sub-constructs, and Writing Scores and four sub-scales of writing. For the first two measures, coefficients were calculated looking at responses to each item within each of the questionnaire scales and with each construct of these two scales. Coefficients for the four sub-scales of writing (Task Response, Coherence and Cohesion, Lexical Resources and Grammatical Range and Accuracy) were calculated by inputting the scores given by the two independent raters.

Table 4.5 Internal Consistency Coefficient Table

Measure Instruments		Internal Consistency Coefficient
Foreign	Total Score	.86
Language	Communication Apprehension	.63
Classroom	Fear of Negative Evaluation	.80
Anxiety Scale	Fear of Tests	.68
Second Language	Total Score	.86
Writing Anxiety	Somatic Anxiety	.85
Inventory	Cognitive Anxiety	.68
	Avoidance Behavior	.68
Writing Score	Total Score	.82
	Task Response	.74
	Coherence and Cohesion	.76
	Lexical Resources	.78
	Grammatical Range and Accuracy	.81

As indicated in Table 4.5, the internal consistency of Foreign Language Classroom Anxiety Scale, Second Language Writing Inventory and Writing Scores show evidence of reasonable levels of reliability appropriate for the current investigative research study. Values around .7

are considered acceptable (Pallant, 2007). However, given the experimental focus of the current study, most scales above .6 should be adequate to identify differences between groups of students.

4.2.1.2 Descriptive Statistics

Table 4.6 Descriptive Statistics of Pre-intervention Scores as Measured by Foreign Language Classroom Anxiety and its Constructs

Scale	The Measure and its Constructs	Total Possible score range	Range (Min to Max)	Mean	SD
Foreign Language Classroom Anxiety Scale	Total Score	33 to 165	60 to 156	105.33	18.62
	Communication Apprehension	11 to 55	20 to 51	35.48	6.38
	Fear of Negative Evaluation	7 to 35	11 to 34	23.48	6.04
	Fear of Tests	15 to 75	24 to 71	46.37	7.62

Table 4.7 Descriptive Statistics of Pre-intervention Scores as Measured by Second Language Writing Anxiety Inventory and its Constructs

Scale	The Measure and its Constructs	Total Possible score range	Range (Min to Max)	Mean	SD
Second Language Writing Anxiety Inventory	Total Score	22 to 110	32 to 94	68.45	13.31
	Somatic Anxiety	7 to 35	8 to 35	22.83	5.99
	Cognitive Anxiety	8 to 40	13 to 36	23.71	5.12
	Avoidance Behavior	7 to 35	10 to 31	21.19	4.28

Table 4.8 Descriptive Statistics for Pre-intervention Writing Task, Word Count and Four Sub-scales

Scale	The Measure, Word Count and its Four Sub-scales	Total Possible score range	Range (Min to Max)	Mean	SD
Writing	Total score	0 to 100	26 to 88.5	55.14	13.36
	Word Count		72 to 98	80.37	5.44
	Task Response	0 to 25	7 to 23	14.51	3.36
	Cohesion and Coherence	0 to 25	6.5 to 21.5	13.90	3.39
	Lexical Resources	0 to 25	5 to 22.5	13.32	3.78
	Grammatical Range and Accuracy	0 to 25	5 to 22.5	13.40	3.46

As for all the three measures and their respective constructs or sub-scales, a good level of variability was demonstrated. The mean scores for the whole scales, and the sub-scales, did not approach the total possible score nor the minimum score for the test, indicating no obvious evidence of ceiling or floor effects that could restrict the variability of the measures.

4.2.1.3 Inferential Data Analyses

Analyses in this section compared the anxiety scores and writing scores produced by the three groups prior to the intervention methods. The results (means, standard deviations and range of scores produced by each group) can be found in Table 4.9. Analyses of variance (ANOVA) were used to determine if there were significant differences between the three groups on the three primary measures in the study. Results of Analyses of Variance were also shown in Tables 4.9, 4.10 and 4.11.

Table 4.9 Comparison of Differences across Three Groups in Pre-intervention Anxiety Level as Measured by Foreign Language Anxiety Scale and its Constructs: mean scores with standard deviations in round brackets and ranges in square brackets, and Results of Analyses of Variance

Measure		Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p
Foreign Language Classroom Anxiety Scale	Total Score	107.38 (19.42) [60 to 153]	106.61 (18.61) [63 to 156]	101.66 (17.70) [60 to 156]	1.01	.37
	Communication Apprehension	36.08 (6.84) [20 to 51]	35.92 (6.21) [24 to 51]	34.34 (6.05) [25 to 46]	.82	.45
	Fear of Negative Evaluation	24.56 (5.23) [11 to 34]	23.95 (6.47) [11 to 34]	22 (6.31) [11 to 31]	1.59	.21
	Fear of Tests	46.95 (8.5) [24 to 68]	46.75 (7.5) [26 to 71]	45.31 (6.75) [29 to 60]	.49	.62

Table 4.10 Comparison of Differences across Three Groups in Pre-intervention Anxiety Level as Measured by Second Language Writing Anxiety Inventory and its Constructs: mean scores with standard deviations in round brackets and ranges in square brackets, and Results of Analyses of Variance

Measure		Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p
Second Language Writing Anxiety Inventory	Total Score	70.26 (12.97) [32 to 90]	69.53 (12.94) [33 to 94]	65.26 (13.87) [33 to 87]	1.51	.23
	Somatic Anxiety	23.26 (5.64) [13 to 36]	23 (6.20) [10 to 35]	22.17 (6.24) [8 to 30]	.32	.73
	Cognitive Anxiety	24.67 (5.34) [13 to 36]	24.21 (4.92) [14 to 34]	22.11 (4.85) [14 to 33]	2.63	.08
	Avoidance Behavior	21.59 (4.17) [10 to 29]	21.69 (4.58) [10 to 31]	20.2 (4.02) [11 to 28]	1.37	.26

Table 4.11 Comparison of Differences across Three Groups in Pre-intervention Writing Level as Measured by Writing Scores and Four Sub-scale Scores: mean scores with standard deviations in round brackets and ranges in square brackets, and Results of Analyses of Variance

Measure		Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p
Writing	Total Score	52.74 (14.5) [26 to 83.5]	54.91 (12.53) [26to 76.5]	58.07 (12.70) [36 to 88.5]	1.49	.23
	Task Response	13.97 (3.59) [7 to 21.5]	14.42 (3.15) [7.5 to 19.5]	15.21 (3.30) [9 to 23]	1.28	.28
	Coherence and Cohesion	13.27 (3.75) [6.5 to 21.5]	13.76 (3.09) [7 to 19.5]	14.77 (3.19) [8.5 to 21.5]	1.89	.16
	Lexical Resources	12.71 (3.72) [5 to 21.5]	13.36 (3.2) [6 to 19.5]	13.97 (3.13) [8 to 21.5]	1.31	.28
	Grammatical Range and Accuracy	12.79 (3.72) [5 to 19]	13.37 (3.27) [5.5 to 19]	14.11 (3.31) [8.5 to 22.5]	1.36	.26

For the Foreign Language Classroom Anxiety Scale (FLCAS), The Second Language Writing Anxiety Scale (SLWAS), and the Writing Scores, the analyses demonstrated that the differences were non-significant (see Tables 4.5, 4.6 and 4.7). These results suggested that there were not substantial differences between the three groups in their pre-intervention scores collected.

4.2.1.4 Correlation Analyses

Previous studies (see literature review section 2.1.1 and 2.1.2 for details) have suggested that more anxious foreign language learners are less likely to achieve good levels of learning. However, few studies have investigated the relation between the perceived anxiety level and the performance of learners in foreign language writing tasks, and even fewer studies have focuses on the writing performance of those learning Chinese as a foreign language. The current study, therefore, looked for evidence for such relationships by assessing the level of correlation between self-reported anxiety level and performance in the Chinese writing task among adult students learning Chinese as a foreign language in China. Results of the correlation analyses are presented in Table 4.12 and 4.13.

Table 4.12 Correlations (Pearson r-values) between Anxiety Level as Measured by Foreign Language Classroom Anxiety Scale and Writing Level as Reflected by Writing Total Score and Four sub-scale Scores

	Writing Total Score	Task Response	Coherence and Cohesion	Lexical Resources	Grammatical Range and Accuracy
Foreign Language Classroom Anxiety Scale Total Score	-.45 <.001	-.5 <.001	-.45 <.001	-.43 <.001	-.49 <.001
Communication Apprehension	-.48 <.001	-.49 <.001	-.45 <.001	-.44 <.001	-.49 <.001
Fear of Negative Evaluation	-.42 <.001	-.43 <.001	-.4 <.001	-.38 <.001	-.44 <.001
Fear of Test	-.43 <.001	-.46 <.001	-.4 <.001	-.39 <.001	-.44 <.001

The correlations indicated that the anxiety level perceived by participants was significantly related to their writing performance. Given that the Foreign Language Classroom Anxiety Scale assesses the participants' perception of anxiety during a foreign language class, these results suggest that those participants who felt more nervous about their classroom experience were the less able Chinese writers.

Table 4.13 Correlation between Anxiety Level as Measured by Second Language Writing Anxiety Inventory and Writing Level as Reflected by Writing Total Score and Four sub-scale Scores

	Writing Total Score	Task Response	Coherence and Cohesion	Lexical Resources	Grammatical Range and Accuracy
Second Language Writing Anxiety Inventory	-.48 <.001	-.5 <.001	-.45 <.001	-.43 <.001	-.49 <.001
Somatic Anxiety	-.34 <.001	-.37 <.001	-.30 <.001	-.31 <.001	-.49 <.001
Cognitive Anxiety	-.43 <.001	-.44 <.001	-.42 <.001	-.38 <.001	-.44 <.001
Avoidance Behavior	-.49 <.001	-.52 <.001	-.47 <.001	-.46 <.001	-.5 <.001

The Second Language Writing Anxiety Inventory was designed to examine participants' perception of anxiety when they were engaged in a writing task and when they knew that their writing tasks were to be reviewed by others. The correlation results suggest that the more the participants felt nervous about writing in a foreign language, the worse their Chinese writing performance.

Therefore, for both measures of anxiety, the correlations demonstrated that participants' perception of anxiety was negatively associated with their writing performance in Chinese.

4.2.2 During-intervention Data Analysis

Analyses were conducted to compare the performance of the three groups on the writing tasks administered during the six teaching sessions. The results for these measures can be found in Table 4.14.

Table 4.14 Comparisons of the writing scores achieved by participants in three groups

Sessions	Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p	Post-hoc
One	3.28 (.65) [3.07 to 3.49]	3.34 (.85) [3.06 to 3.62]	3.43 (1.07) [3.06 to 3.49]	.27	.75	Control = Group A = Group B
Two	3.69 (.73) [3.46 to 3.93]	3.79 (.74) [3.55 to 4.03]	3.94 (.97) [3.61 to 4.28]	.88	.42	Control = Group A = Group B
Three	3.41 (.5) [3.25 to 3.57]	4.11 (.80) [3.84 to 4.37]	4.66 (1.06) [4.29 to 5.01]	22.26	<.01	Control < Group A = Group B
Four	3.33 (.66) [3.12 to 3.55]	4.29 (.9) [3.99 to 4.58]	5.14 (1.12) [4.76 to 5.53]	37.24	<.01	Control < Group A < Group B
Five	3.62 (.75) [3.37 to 3.86]	4.66 (.99) [4.33 to 4.98]	5.37 (1.35) [4.91 to 5.84]	26.36	<.01	Control < Group A = Group B
Six	3.9 (.75) [3.65 to 4.14]	4.87 (.99) [4.54 to 5.19]	5.51 (1.27) [5.08 to 5.95]	23.84	<.01	Control < Group A = Group B

Analyses of Variance revealed that there were no statistically significant difference between the scores achieved by participants in three groups for the former two sessions. However, from the third session onwards, evidences began to show that there were statistically significant differences between the groups.

Following a significant analyses of variance, post-hoc tests (Scheffe) were run to compare the scores achieved by participants in three groups. Results indicated that from the third session onwards, participants in Experimental Group A and Experimental Group B outperformed those in the Control Group. In Session Four, there was an additional difference in that participants in Experimental Group B outperformed those in Experimental Group A. However, there were no statistically significant differences between participants in Experimental Group A and Experimental Group B in sessions Five and Six.

Performance of participants in the Control Group fluctuated between sessions, but eventually their performance improved along with the intervention process, even though the progress was quite slight. By contrast, participants in Experimental Group A and Experimental Group B underwent consistent improvements across the six sessions, leading to those in Experimental Groups A and B outperforming those in the Control Group from session three onwards.

4.2.3 Post-intervention Data Analysis

The post-intervention data analyses were employed to examine whether the use of the learner corpus and peer corrective feedback can contribute to the lowering of anxiety level

and the enhancement of writing performance. Initially, this considered whether the anxiety levels and writing performance of participants learning Chinese as a foreign language differ depending on the type of teaching materials and corrective feedback methods incorporated. First, post-intervention measures were again checked for evidence for reliability. This was followed by analyses of variance assessing differences between the three groups on the measures of anxiety and writing.

4.2.3.1 Reliability Test

Cronbach's alpha was used to determine the degree of internal consistency of all the subscales of the anxiety and writing measures in the study. This was based on the same procedures as used for the pre-intervention measures (see table 4.15).

Table 4.15 Reliability (Internal consistency) Test for Post-intervention Test Measures

	Scales	Internal Consistency Coefficient
Foreign Language Classroom Anxiety Scale	Total Score	.89
	Communication Apprehension	.69
	Fear of Negative Evaluation	.76
	Fear of Tests	.73
Second Language Writing Anxiety Inventory	Total Score	.92
	Somatic Anxiety	.82
	Cognitive Anxiety	.72
	Avoidance Behavior	.74
Writing Performance	Total Score	.80
	Task Response	.73
	Coherence and Cohesion	.69
	Lexical Resources	.69
	Grammatical Range and Accuracy	.76

Again, all of the reliability scores were above .69, suggesting that the scores were adequate in terms of reliability to assess differences in gains across the three groups.

4.2.3.2 Descriptive Statistics

After the intervention process, the same three primary study measures were conducted. Tables 4.16, 4.17 and 4.18 present the descriptive statistics for these three measures.

Table 4.16 Descriptive Statistics of Post-intervention Scores as Measured by Foreign Language Classroom Anxiety and its Constructs

Scale	The Measure and its Constructs	Total Possible score range	Range (Min to Max)	Mean	SD
Foreign Language Classroom Anxiety Scale	Total Score	33 to 165	40 to 116	75.52	17.02
	Communication Apprehension	11 to 55	13 to 37	25.10	5.71
	Fear of Negative Evaluation	7 to 35	8 to 3	16.56	5.12
	Fear of Tests	15 to 75	17 to 53	33.87	7.54

Table 4.17 Descriptive Statistics of Post-intervention Scores as Measured by Second Language Writing Anxiety Inventory and its Constructs

Scale	The Measure and its Constructs	Total Possible score range	Range (Min to Max)	Mean	SD
Second Language Writing Anxiety Inventory	Total Score	22 to 110	25 to 80	47.37	12.44
	Somatic Anxiety	7 to 35	7 to 27	15.55	4.61
	Cognitive Anxiety	8 to 40	10 to 29	16.41	4.11
	Avoidance Behavior	7 to 35	8 to 24	14.97	4.22

Table 4.18 Descriptive Statistics for Post-intervention Writing Task, Word Count and Four Sub-scales

Scale	The Measure, Word Count and its Four Sub-scales	Total Possible score range	Range (Min to Max)	Mean	SD
Writing	Total score	0 to 100	30.5 to 89.5	62.48	12.09
	Word Count		86 to 102	85.22	7.03
	Task Response	0 to 25	8 to 23	15.81	3.05
	Cohesion and Coherence	0 to 25	6 to 22	15.28	3.32
	Lexical Resources	0 to 25	7 to 21.5	14.81	3.11
	Grammatical Range and Accuracy	0 to 25	7.5 to 23	16.59	3.10

As for all the three measures and their respective constructs or sub-scales, a good level of variability was demonstrated, indicating that the scores were spreading especially well across all the participants.

4.2.3.3 Inferential Test

Two-way Analyses of Variance were performed to compare the scores on the measure of Foreign Language Classroom Anxiety Scale produced by the three groups before and after intervention. Tables 4.19 presents the mean scores with standard deviations in round brackets and ranges in square brackets, and results of the interaction effect for each of the two-way Analyses of Variance performance.

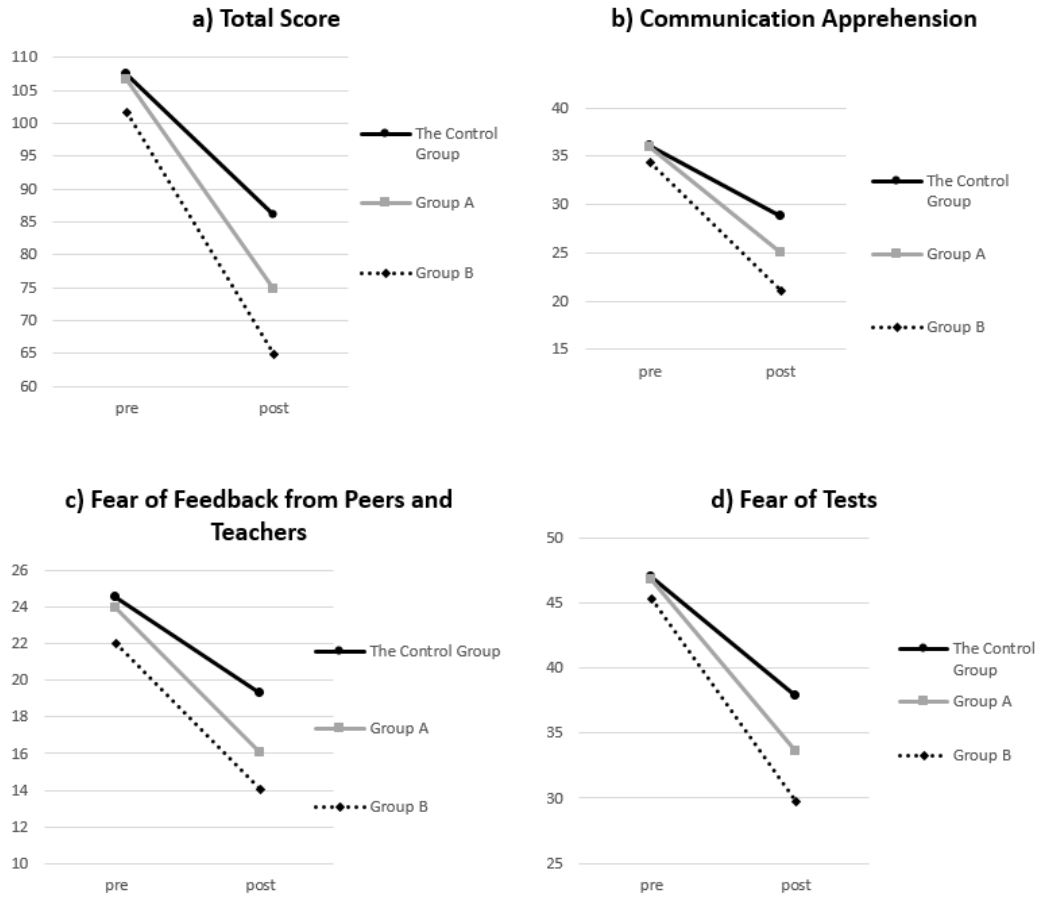
Table 4.19 Two-way Analysis of Variance of Foreign Language Classroom Anxiety Scale and its Three Construct Scores

The Measure and its Constructs	The Control Group		Experimental Group A		Experimental Group B		Interaction effect
	Pre	Post	Pre	Post	Pre	Post	
Total Score	107.38	85.95	106.61	74.63	101.66	64.89	$F_{(2, 218)}$ = 4.07
	(19.42)	(16.76)	(18.61)	(12.5)	(17.70)	(14.82)	p = .02
	[60 to 153]	[53-114]	[63 to 156]	[53 to 116]	[60 to 156]	[40 to 106]	
Communication Apprehension	36.08	28.82	35.92	24.95	34.34	21.11	$F_{(2, 218)}$ = 5.3
	(6.84)	(5.34)	(6.21)	(4.01)	(6.05)	(4.98)	p = .01
	[20 to 51]	[17 to 37]	[24 to 51]	[18 to 36]	[25 to 46]	[13 to 33]	
Fear of Negative Evaluation	24.56	19.31	23.95	16.05	22	14.06	$F_{(2, 218)}$ = 1.80
	(5.23)	(5.58)	(6.47)	(3.90)	(6.31)	(4.34)	p = .17
	[11 to 34]	[10 to 30]	[11 to 34]	[10 to 27]	[11 to 31]	[8 to 26]	
Fear of Tests	46.95	37.82	46.75	33.63	45.31	29.71	$F_{(2, 218)}$ = 3.77
	(8.5)	(7.31)	(7.5)	(6.10)	(6.75)	(7.05)	p = .02
	[24 to 68]	[24 to 54]	[26 to 71]	[22 to 53]	[29 to 60]	[17 to 50]	

As Table 4.19 shows, the interaction effects were significant for the total score of Foreign Language Classroom Anxiety and the constructs of Communication Apprehension and Fear of Tests. However, the interaction effects were not significant for the construct of Fear of

Negative Evaluation. Figure 4.1 can clearly demonstrate the difference in interaction effect exerted on the scale as a whole and its three constructs.

Figure 4.1 Changes in the means of scores from pre-intervention anxiety level to post-intervention anxiety level on measures of Foreign Language Classroom Anxiety Scale and its three constructs



Note: in the graph "pre" stands for pre-intervention data and "post" refers to the data collected after the intervention process.

Since the interaction effects were significant for the total scores of Foreign Language Classroom Anxiety Scale and the scores for the two constructs of Communication

Apprehension and Fear of Tests, further one-way analyses of variance with post-hoc reported (Scheffe) were utilized to further examine the impact imposed by different intervention approaches (teaching materials and corrective feedback approaches).

In the post-hoc pairwise comparison tests, post-intervention anxiety level of three groups as measured by Foreign Language Classroom Anxiety and its two subscales were included as dependent variables. Since the interaction effect in the construct of Fear of Negative Evaluation was not significant, this construct was not included in the tests designed to measure intervention effects. As the independent variable, group, has three groups (i.e., "the Control Group", "Experimental Group A" and "Experimental Group B), we have two pairwise comparisons in our analysis: (1) the Control Group using the textbook material and teacher-conducted feedback compared to Experimental Group A using the learner corpus and the teacher-conducted feedback. 2) Experimental Group A using the learner corpus and the teacher-conducted feedback compared to Experimental Group B using the learner corpus and the peer-conducted feedback. The first pairwise comparison was made to show the effectiveness of using the learner corpus. The second pairwise comparison was made to show the effectiveness of employing peer-conducted corrective feedback.

Table 4.20 Comparisons of Post-intervention Anxiety Level between Three Groups as Measured by Foreign Language Classroom Anxiety

Dependent Variables	Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p	Post-hoc
Total Score	85.95 (16.76) [53-114]	74.63 (12.5) [53 to 116]	64.89 (14.82) [40 to 106]	18.75	<.01	Control > Group A > Group B
Communication Apprehension	28.82 (5.34) [17 to 37]	24.95 (4.01) [18 to 36]	21.11 (4.98) [13 to 33]	23.75	<.01	Control > Group A > Group B
Fear of Tests	37.82 (7.31) [24 to 54]	33.63 (6.10) [22 to 53]	29.71 (7.05) [17 to 50]	13	<.01	Control > Group A > Group B

Results indicated that after the intervention, there were statistically significant difference of post-intervention anxiety in the total score as measured by Foreign Language Classroom Anxiety and the scores for constructs of Communication Apprehension and Fear of Tests between the Control Group and Experimental Group A, and between Experimental Group A and Experimental Group B. Given that pre-intervention data analyses revealed that there

was not statistically significant difference between three groups, the difference revealed by the post-hoc tests in comparing the post-intervention anxiety level could be indicative of the intervention effect. In other words, both the employment of the learner corpus and the peer corrective feedback had significant impact on reducing participants' level of anxiety related to their experience of learning Chinese as a foreign language under the classroom context.

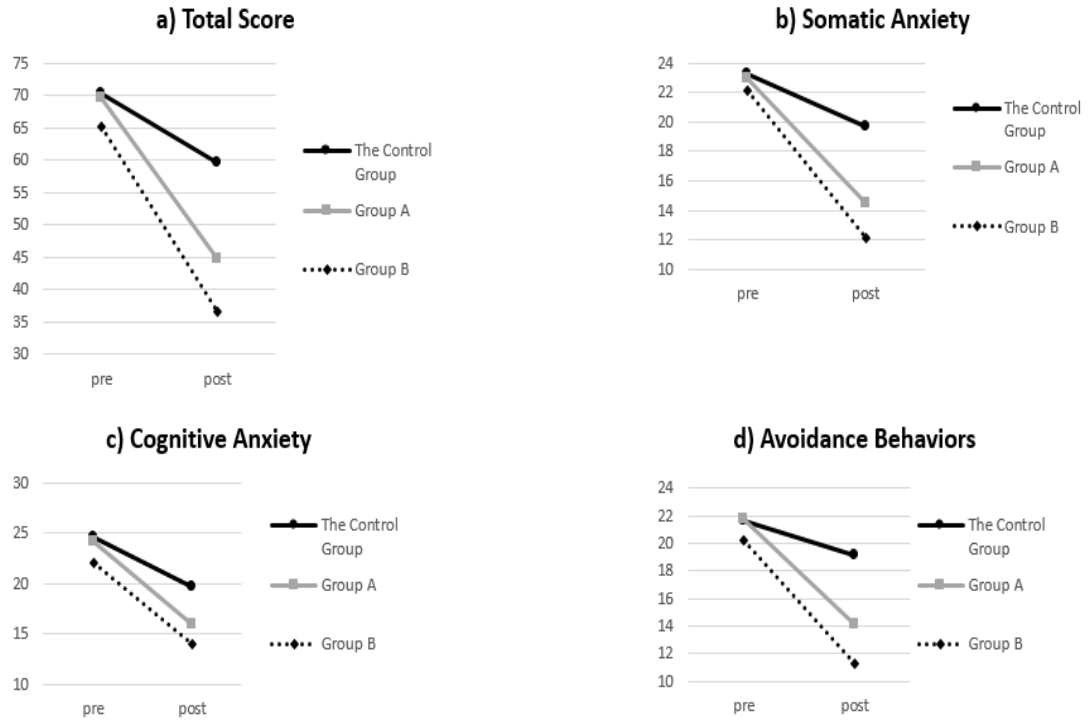
In addition, for the second measure, Second Language Writing Anxiety Inventory, two-way Analyses of Variance were also performed to demonstrate the interaction effect. Table 4.21 presents the information about pre-and-post-intervention scores got by three groups as measured by Second Language Writing Anxiety Inventory and the interaction effect.

Table 4.21 Two-way Analysis of Variance of Second Language Writing Anxiety Inventory and its Three Construct Scores

The Measure and its Constructs	The Control Group		Experimental Group A		Experimental Group B		Interaction Effect
	Pre	Post	Pre	Post	Pre	Post	
Total Score	70.26 (12.97) [32 to 90]	59.72 (10.65) [33 to 80]	69.53 (12.94) [33 to 94]	44.66 (6.19) 31 to 54]	65.26 (13.87) [33 to 87]	36.54 (5.71) [25 to 47]	$F_{(2, 218)}$ = 14.52 p < .01
Somatic Anxiety	23.26 (5.64) [13 to 36]	19.64 (4.20) [8 to 27]	23.00 (6.20) [10 to 35]	14.50 (3.18) [9 to 21]	22.17 (6.24) [8 to 30]	12.14 (2.52) [7 to 15]	$F_{(2, 218)}$ = 8.83 p < .01
Cognitive Anxiety	24.67 (5.34) [13 to 36]	19.71 (4.24) [11 to 29]	24.21 (4.92) [14 to 34]	15.95 (2.52) [11 to 22]	22.11 (4.85) [14 to 33]	14.06 (4.34) [8 to 26]	$F_{(2, 218)}$ = 4.77 p < .01
Avoidance Behavior	21.59 (4.17) [10 to 29]	19.15 (3.50) [9 to 24]	21.69 (4.58) [10 to 31]	14.13 (2.22) [10 to 18]	20.20 (4.02) [11 to 28]	11.23 (1.93) [8 to 15]	$F_{(2, 218)}$ = 9.56 p < .01

As for the Second Language Writing Anxiety Inventory, the interaction effects were significant for the total score and each of the three constructs. The figure 4.2 can present the interaction effect clearly.

Figure 4.2 Changes in the means of scores from pre-intervention anxiety level to post-intervention anxiety level on measures of Second Language Writing Anxiety Inventory and its three constructs



Note: in the graph “pre” stands for pre-intervention data and “post” refers to the data collected after the intervention process.

Since the interaction effect was statistically significant for the whole inventory as well as for its three constructs, further one-way analyses of variance with post-hoc results (Scheffe) were carried out to show the intervention effect of each intervention approach.

In the post-hoc tests, post-intervention anxiety as related to the writing experience of those learning Chinese as a foreign language were identified as the dependent variables and groups with two different intervention approaches were included as the independent variables. There were two pairwise comparisons. The first one compared the Control Group and Experimental Group A to demonstrate the intervention effect of using the learner corpus. The second one compared Experimental Group A and Experimental Group B to show the intervention effect of using the peer corrective feedback. Results were presented in Table 4. 22.

Table 4.22 Comparisons of Post-intervention Anxiety Level between Three Groups as Measured by Second Language Writing Anxiety Inventory

Dependent Variables	Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p	Post-hoc
Total Score	59.72 (10.65) [33 to 80]	44.66 (6.19) [31 to 54]	36.54 (5.71) [25 to 47]	82.36	<.01	Control > Group A > Group B
Somatic Anxiety	19.64 (4) [8 to 27]	14.50 (3.18) [9 to 21]	12.14 (2.52) [7 to 15]	47.59	<.01	Control > Group A > Group B
Cognitive Anxiety	19.71 (4.24) [11 to 29]	15.95 (2.52) [11 to 22]	14.06 (4.34) [8 to 26]	39.53	<.01	Control > Group A > Group B
Avoidance Behavior	19.15 (3.5) [9 to 24]	14.13 (2.22) [10 to 18]	11.23 (1.93) [8 to 15]	84.50	<.01	Control > Group A > Group B

As Table 4.22 revealed, the intervention effect of using the learner corpus and peer corrective feedback were both significant for reducing the writing anxiety perceived by participants. In other words, those exposed to the learner corpus as teaching materials felt less anxious in response to Chinese writing tasks compared with those exposed to the traditional textbooks as teaching materials. In addition, those giving and receiving peer corrective feedback perceived less anxiety related to their Chinese writing tasks as compared with those receiving teacher corrective feedback.

For the third primary measure – writing performance as measured by the total score of writing task and four subscales, two-way Analyses of variance were used to examine the interaction effect. Table 4.23 shows the information about participants' pre-and-post-intervention writing scores and presents the interaction effect.

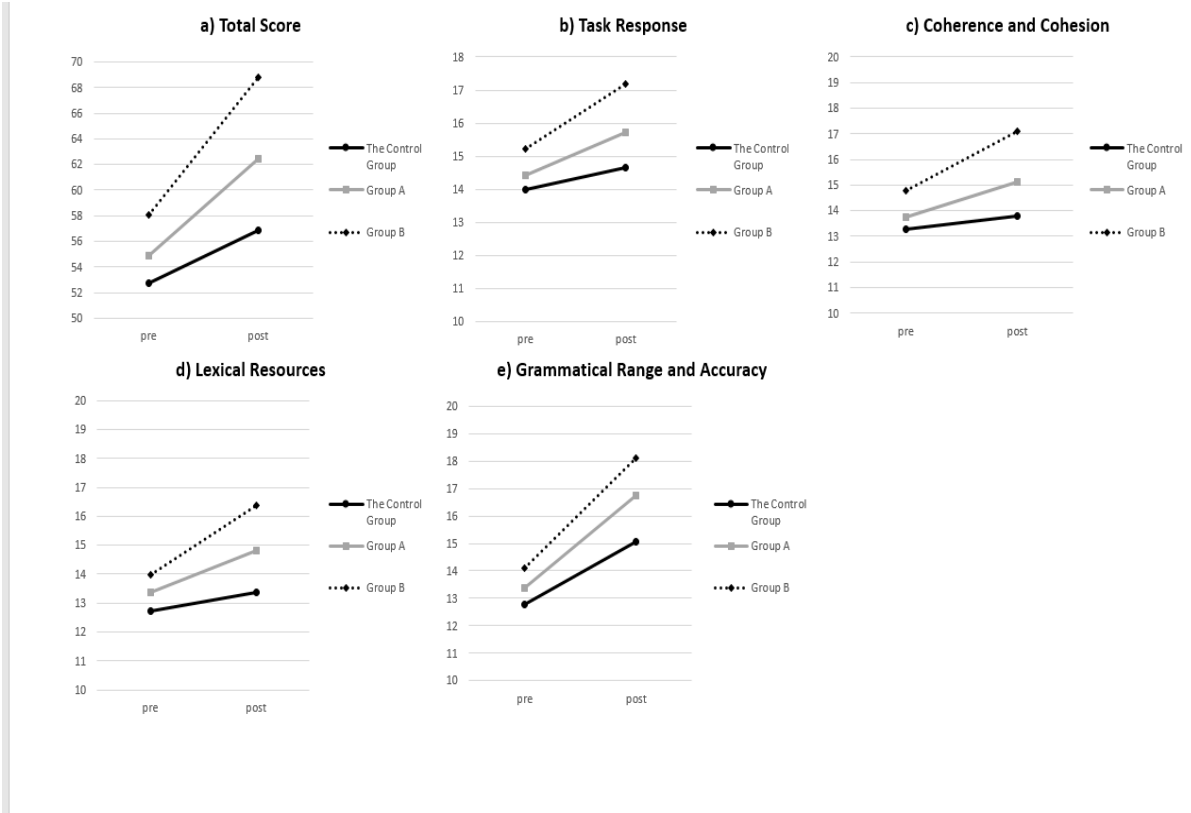
Table 4.23 Two-way Analysis of Variance of Writing Scores and its Four Sub-scale Scores

The Measure and its Constructs	The Control Group		Experimental Group A		Experimental Group B		Interaction effect
	Pre	Post	Pre	Post	Pre	Post	
Total Score	52.74 (14.5) [26 to 83.5]	56.88 (12.73) [30.5-83.5]	54.91 (12.53) [26 to 76.5]	62.42 (10.9) 34 to 79.5]	58.07 (12.7) [36 to 88.5]	68.77 (9.51) [48.5 to 89.5]	$F_{(2, 218)}$ = 1.32 p = .27
Task Response	13.97 (3.59) [7 to 21.5]	14.65 (3.16) [8 to 21.5]	14.42 (3.15) [7.5 to 19.5]	15.72 (2.79) [8.5 to 19.5]	15.21 (3.30) [9 to 23]	17.19 (2.68) [12 to 23]	$F_{(2, 218)}$ = 5.75 p < .01
Coherence and Cohesion	13.27 (3.75) [6.5 to 21.5]	13.78 (3.52) [6 to 21.5]	13.76 (3.09) [7 to 19.5]	15.12 (2.81) [8.5 to 20]	14.77 (3.19) [8.5 to 21.5]	17.10 (2.76) [10.5 to 22]	$F_{(2, 218)}$ = 3.45 p = .03
Lexical Resources	12.71 (3.72) [5 to 21.5]	13.38 (3.34) [7 to 21.5]	13.36 (3.20) [6 to 19.5]	14.83 (2.68) [8.5 to 19.5]	13.97 (3.13) [8 to 21.5]	16.37 (2.55) [10.5 to 21.5]	$F_{(2, 218)}$ = .99 p = .37
Grammatical Range and Accuracy	12.79 (3.72) [5 to 19]	15.06 (3.20) [7.5 to 20]	13.37 (3.27) [5.5 to 19]	16.75 (2.92) [8.5 to 21.5]	14.11 (3.31) [8.5 to 22.5]	18.11 (2.36) [13 to 23]	$F_{(2, 218)}$ = 1.32 p = .27

As for the writing scores, the interaction effects were significant only for the sub-scales of Task Response and Coherence and Cohesion. By contrast, as for the total score of writing and the other two subscales of Lexical Resources and Grammatical Range and Accuracy, the interaction effects were not significant.

Figure 4.3 gives a clearer presentation of the interaction effect.

Figure 4.3 Changes in the Means of Scores from Pre-intervention Writing Performance to Post-intervention Writing Performance on Measures of Writing Total Scores and the Four Sub-scales.



Note: in the graph “pre” stands for pre-intervention data and “post” refers to the data collected after the intervention process.

Given that fact the interaction effects were only significant for the sub-scales of Task Response and Coherence and Cohesion, further one-way analyses of variance, with post-hoc analyses (Scheffe), were employed to examine the intervention effect of using the learner corpus and the peer corrective feedback. The pairwise comparison between the Control Group and Experimental Group A was made to test whether the incorporation of the learner corpus could play an intervention effect on enhancing participants' ability to perform well in the sub-scales of Task Response and Coherence and Cohesion. In addition, the pairwise comparison between Experimental Group A and Experimental Group B was made to test whether the use of peer corrective feedback could exert an intervention effect on participants' ability in these two subscales.

Table 4.24 Comparisons of Post-intervention Writing Scores between three groups as Measured by the Subscales of Task Response and Coherence and Cohesion

Dependent Variables	Control Group (39 participants)	Experimental Group A (38 participants)	Experimental Group B (35 participants)	Analysis of Variance df=2, 109 F	p	Post-hoc
Task Response	14.65 (3.16) [8 to 21.5]	15.72 (2.79) [8.5 to 19.5]	17.19 (2.68) [12 to 23]	7.1	<.01	Control = Group A = Group B
Coherence and Cohesion	13.78 (3.52) [6 to 21.5]	14.83 (2.68) [8.5 to 19.5]	17.1 (2.76) [10.5 to 22]	10.91	<.01	Control = Group A < Group B

Group comparisons between the Experimental Group A and Experimental Group B elicited statistically significant differences in the subscale of Coherence and Cohesion, indicating the intervention effect of using peer-conducted corrective feedback in enhancing participants' ability to write more coherently and with stronger cohesion. However, there were no statistically significant difference between the Control Group and Experimental Group A and between Experimental Group A and Experimental Group B in the writing total score and the subscales of Task Response, Lexical Resources and Grammatical Range and Accuracy.

These results suggested that even though participants in Experimental Group A slightly outperformed those in the Control Group in the writing output, the intervention effect of using the learner corpus was not statistically significant for both the total score of writing and all the four sub-scales of writing. Meanwhile, even though participants in Experimental Group B outperformed those in Experimental Group A in the writing output, the difference was slight and the use of peer corrective feedback only elicited statistically significant intervention effect on the sub-scale of Coherence and Cohesion.

Chapter Five Discussion

The study reported in this thesis investigated the correlation between foreign language anxiety and writing performance of international students learning Chinese as a foreign language. The study also explored the effect of using learner corpora and peer corrective feedback on the writing output and anxiety levels perceived by Chinese as a foreign language learners. The current chapter summarizes the research outcomes and main findings, followed by a discussion of the possible interpretations and theoretical as well as educational implications of the study. Finally, a cautionary note is delivered showing the limitations of the study and possible future research orientations.

5.1 The Correlation between Anxiety level and Writing Performance

One important objective of the present study is to explore the correlation between foreign language anxiety and foreign language writing performance. The results of analyses of the pre-intervention data indicated that the anxiety level perceived by those learning Chinese as a foreign language and their writing scores were negatively correlated, suggesting higher levels of anxiety were related to lower scores in writing. The overall anxiety score from the Foreign Language Classroom Anxiety Scale was correlated at a similar level with the four writing subcomponents of (i) Task Response, (ii) Coherence and Cohesion, (iii) Lexical Resources, and (iv) Grammatical Range and Accuracy (i.e., correlations from r = -.43 to -.50). Considering the three sub-scales of the Foreign Language Classroom Anxiety Scale, the construct of Communication Apprehension produced the larger range of correlations with the writing sub-components (from R = -.45 to -.49); although the other two anxiety sub-scales

also produced correlations with the writing subcomponents over r = -.4 as well, with the exception of that for the Lexical Resources subcomponent.

The second anxiety scale, the Second Language Writing Anxiety Inventory, also produced consistently significant negative correlations with the writing scale. The anxiety sub-scale with the largest range of correlations with the writing sub-components was that for Avoidance Behaviour (r = -.46 to -.52). The Somatic Anxiety sub-scale mainly produced correlations with the writing subcomponents in the r = -.3 range (except for the correlation with Grammatical Range and Accuracy), and the Cognitive Anxiety sub-scale produced correlations ranging from -.38 to -.44 with the writing subcomponents. Overall, though, the correlations between anxiety scales and writing scores were fairly consistent.

One important finding of the study is that the anxiety level perceived by these Chinese as a foreign language learners and their writing performance were negatively correlated, which was largely consistent with the findings of many previous studies in this domain (see literary review section 2.1.3 for details). However, in the present study, a bigger effect size in the correlation between the overall writing performance and classroom-related anxiety (-.45) and between the overall writing performance and writing-specific anxiety (-.48) was found as compared with the correlation level between anxiety and general foreign language performance discovered in other previous studies. Zhang (2019b) conducted a meta-analysis investigating the relationship between foreign language anxiety and foreign language performance. By surveying over fifty-five independent samples with 10,228 participants learning a wide range of foreign languages under different contexts, Zhang found that foreign

language anxiety had a moderate correlation with foreign language performance (correlations ranging from r = -.30 to -.39 across the 55 studies).

The bigger effect size found in the present study can be interpreted as being influenced by the following factors.

5.1.1 The difficulty of Writing in Chinese as a foreign language at the transitional period

In the present study, the difficulty experienced by Chinese-as-a-foreign-language learners at a special transitional period might be one important factor accounting for the bigger effect size. Participants in the present study were at an intermediate-to-advanced stage of Chinese as a foreign language learning and were experiencing a special transitional period as part of the course they were taking. This transition involved preparing for Chinese Proficiency Test Level Five: the intermediate-to-advanced level of Chinese Proficiency. At this level, participants need to be able to write Chinese characters and produce paragraphs of around eighty characters. The participants used to learn Chinese characters with Pinyin printed over each character when they were at the elementary stage of learning Chinese so they might heavily rely on the help of the Pinyin system to recognize characters. However, when they came to the intermediate-to-advanced level, Pinyin transcriptions were wholly removed from their learning materials as well as from test materials. This is a period where Chinese as a foreign language learners need to transfer from the alphabetic system of Pinyin to the more morpho-syllabic system that comprises Chinese characters. In other words, unlike those learning European languages who can go directly to the writing system itself, Chinese Language learners are required to first learn an alphabetic system of Pinyin before starting the official writing system of Chinese characters. The competence in using characters in

Chinese writing requires Chinese as a foreign language learners to learn and memorize a wide range of stroke types, stroke orders, radicals, and the structures of characters. Students may not be able to achieve writing proficiency unless an abundance of time and effort are devoted, which may pose a significant challenge to students at this transitional period. At this stage, they not only need to learn about the important aspects of writing, as learners of other languages do, but also need to confront a character system which is different from the Pinyin system they had been learning.

In confrontation of the difficulty emerging from the transitional period, those performing poorly in Chinese may lose confidence, demonstrate avoidance behaviours and suffer higher anxiety. This explanation may be justified by the point that people usually demonstrate a strong inclination of avoidance behaviours when they have experienced failures in the past and are afraid that they would be negatively evaluated if failures reoccur. In other words, the sense of anxiety may derive from past experience of failures due to underperformance. Underperformance, as defined by Pindek in 2020, and based on existing definitions of task performance (e.g., Rotundo & Sackett, 2002; Gilboa et al., 2008), refers to the inability to meet the required standards for certain tasks, either in the quality or the quantity of the output. Pindek (2020), in analysing underperformance and anxiety, points out that if individuals realize that there is a discrepancy between past performance and the desired standards of performance, they may develop a notion that they are not meeting their own standards for success. In this context, disengagement behaviours may arise, especially when individuals lose confidence and feel that they cannot succeed. In the domain of foreign language acquisition, linguistic difficulties have also been identified as a common obstacle which may raise the affective filter of language learners and negatively influence their writing performance. In the present study, participants who were at the transitional stage where

Chinese as a foreign language learners need to transfer from the alphabetic system of Pinyin to the more morpho-syllabic system. In the present study they were required to write a composition consisting of around eighty characters. The difficulty at this transitional stage may make participants feel that they cannot reach the desired standards of writing in Chinese. Those having low proficiency in Chinese as a foreign language writing may have experienced more failures in their previous study and discouraged by previous failures, and they may be more likely to suffer anxiety and avoid confronting this new challenge of having to writing in Chinese character. This explanation may be supported by the finding that the correlation between the construct of avoidance behaviours from the questionnaire of Foreign Language Classroom Anxiety Scale and writing performance was -.49. Considering the construct of avoidance behaviours includes question items such as "*Unless I have no choice, I would not use Chinese to write compositions*.", this relatively large correlation may suggest that those performing poorly in Chinese writing tend to demonstrate more avoidance behaviours, and the accompanying levels of anxiety that such behaviours suggest.

The linguistic difficulty encountered at this transitional stage may aggravate due to the deficiency in teaching research and strategy development. To be more specific, another potential element accounting for the high anxiety level perceived participants in the present study is related to deficiency in teacher education capacity in Mainland China, which has increased the difficulty of learning Chinese as a foreign language writing. Many researchers have explored the apparently poor performance of Chinese language teachers from a range of perspectives such as unfamiliarity with the local culture of learning, perceived low levels of learner motivation, inadequate planning to engage learners, inability to see language learning

from the learner's perspective, and their low proficiency in English, but these researches are mostly conducted under the context of countries other than China: the United States (Orton 2011); Australia (Scrimgeour 2012). In the present study, the research was conducted in mainland China, and language instructors' inability to teach effectively is also a noticeable issue and can offer some reference for future research concerning the pedagogy in teaching Chinese as a second language. In the university where the study was conducted, over two-thirds of the instructors teaching Chinese as a foreign language were native Chinese who used to or were at that moment language instructors teaching English as a second language. However, for instructors who are native speakers of Chinese, teaching Chinese as a foreign language would be a great challenge because they cannot resort to their first language literacy experience in a second language classroom since the educational settings are different (Everson, 2011; Orton, 2016). To deliver the courses, instructors, who had not received adequate training concerning teaching Chinese as a foreign language, had a heavy reliance on grammar in Chinese textbooks, and followed the structure of available Chinese textbooks in the sequence of text, vocabulary list, and grammar explanations and exercises. Yet, the reliance on textbooks failed to serve the purpose of teaching Chinese effectively. A remarkable characteristic of this grammar-centred pedagogy is the concern for sentence patterns.

For example, in the present study, when explaining the structure "学生们把任务完成了"(Students have finished the task.), the instructor emphasized that when using "把" structure, students need to place the object (任务 task) before the verb (完成 finish) and are

required to master this structure by both rote learning and pattern drills. However, students felt very confused since they had learned the structure "学生们完成了任务（Students have finished the task）" where the object (任务 task) is placed after the verb (完成 finish). When asked about the difference between these two sentence structures, the instructor, whose native language is Chinese and learned this structure when learning Chinese as the first language intuitively, could not offer a reasonable explanation and merely asked participants to follow the example and do pattern drills. Informal communication revealed that participants in the present study felt confused about in what context it is appropriate to use either sentence. They claimed that the subtle differences between very similar sentences could never be well understood by Chinese as a foreign language learners and lost confidence in their sustainable development in learning Chinese. The inadequate capacity of Chinese as a second language instructors added difficulty to the teaching and learning process. This difficulty may further destroy the confidence of those with low Chinese proficiency since they may find it harder to comprehend what the instructors were delivering and were not encouraged by their previous failures of trying different resources of sort the information out.

Research has found that the level of anxiety may be associated with the difficulties experienced by learning a specific subject. For example, Mallow (2006) and Udo, Ramsey and Mallow (2004) carried out studies to examine anxiety among college students learning science. According to their studies, the rigor and difficulty of science course content may be the common cause of student anxiety. In the domain of foreign language acquisition,

researchers' exploration about foreign language anxiety has largely focused on alphabetic languages, such as English, which may be easier to learn for those from an alphabetic language background than a non-alphabetic language. In this sense, the present study may contribute to the understanding of foreign language anxiety by drawing attention to the learning of Chinese characters which may add to the complexity of learning experienced by students from alphabetic backgrounds. Clearly, further research is needed to assess this prediction: for example, comparing students learning a foreign language from different language backgrounds, which may indicate that the closer the first and second language, the less anxiety produced during learning. However, it does add to the current data showing that performance in a foreign language task (writing in Chinese in this case) can be associated with higher levels of anxiety.

All in all, increased difficulty at the transition period might be an element making those having poor performance in writing feel a higher level of anxiety. However, on top of that, the increased difficulty might also be a stimulus making those already feeling anxious to perform worse. This is because in order to complete a piece of writing, participants need to be very concentrated and resort to their resources reserve that has been accumulated in the aspect of Chinese as a foreign language writing. However, a person suffering a high level of anxiety may find it difficult to properly allocate their attention on the given task. This could be supported by the attentional control theory proposed by Eysenck et al. (2007). This theory proposed the hypothesis that the state of anxiety may prompt individuals to devote excessive resources to the detection of potential threat and consequently impede the efficient functioning of the goal-directed attentional system. In other words, when participants felt anxious, they were more inclined to be worried about their feeling of anxiety

instead of concentrating their attention on the required tasks. In addition, according to cognitive interference theory, the state of anxiety may result in fewer resources to dedicate to the tasks at hand, depleting working memory reserves, and potentially resulting in a decline in performance (Northern, 2010). In the present study, worries about committing errors and being negatively commented on by others may be the threat stimuli that distracted participants' attention from doing their writing task, and thus negatively impact their writing performance. This was largely consistent with a quantitative study conducted by Stawski et al. (2008) over one hundred and eleven older adults recruited from a senior residence centre to examine the effect of anxiety on their cognitive ability. Results of this study demonstrated that anxiety impaired cognition through intrusive thoughts and participants became more distracted by the task-irrelevant thoughts that arise as a result of having to do a stressful, imposed task. This may result in less and less working memory available to devote to the task-relevant resources and lead to reduced cognitive performance.

5.1.2 Traditional Chinese Classroom Culture and Corrective Feedback Methods

The traditional Chinese classroom culture and corrective feedback methods used in teaching Chinese as a foreign language classes might offer another explanation for the assumption that those performing poorly might suffer more anxiety. In the present study, participants were all year-three students enrolled in a university based in China. When they were at Grade One and Grade Two in the undergraduate program, they studied and lived in China, getting fully immersed in traditional Chinese educational context. Under the traditional classroom context, there were virtually no interactions among participants and the instructor

played a dominant role. Due to the lack of interaction opportunities, participants may not be familiar with each other and may believe that if their performance in Chinese as a foreign language writing was poor, their standing in the class may degrade. According to the cognitive model of social anxiety as proposed by Clarks and Wells in 1995 (see Literature review 2.1.1 for details), language learners tend to believe that they will be identified as losers if they present the wrong answer. In other words, when they perceived themselves as being inadequate in wring in Chinese, they may get nervous and anxious. In addition to Chinese classroom culture that features the lack of interaction opportunities, another feature that may dampen participants' belief in their writing ability and lead to higher anxiety may have something to do with the corrective feedback typically adopted by Chinese language instructors. Ellis (2006) defined Corrective feedback as responses to learner output containing an error. Lyster, Saito and Sato (2013) highlighted the value of corrective feedback as being able to point out the mistakes in learners' output and serving as a scaffold to promote students' second language growth. This highlighted value of corrective feedback is also the reason why many Chinese instructors typically favour the use of this type of feedback. Many Chinese instructors typically favour the use of corrective feedback by directly pointing out that an error is committed. For example, in the fourth intervention session, responding to the requirement of using "舞会（party）" as the keyword to write one sentence, one of the participants wrote, "我们一起去舞会明天下午 (We together go to the party tomorrow afternoon)". The corrective feedback he received from the instructor was an explicit correction that to put time adverbial (明天下午 tomorrow afternoon) at the end of the sentence was an error in word order and this time adverbial shall be put either at the beginning of the whole sentence or precede the verb that it was modifying. This way of directly labelling a way of writing as an error may make participants feel they are inadequate

in their Chinese proficiency, which may in turn make them more anxious. Those performing poorly in Chinese writing may get exposed to more corrective feedback since they were more likely to commit errors in their writing. This is especially the case when the focus of teaching was given to the correct writing of characters and the correct use of sentence structures, instead of the overall quality of writing. Once participants mis-wrote one stroke of a character, the language instructor in the present study would point out the error, even though this mis-writing did not seriously interfere with the development of the whole paragraph.

The deficiency in interactive opportunities and the corrective methods commonly adopted by language instructors in China may make participants with poor performance refrain from getting engaged in any communication activities showing their language proficiency, no matter in the written or oral form. In the present study, in response to the anxiety-measuring questionnaire of Foreign Language Classroom Anxiety Scale, data indicated that among the three constructs of this scale, the construct communication apprehension and writing performance produced a relatively larger range of correlations with the writing sub-components (from R = -.45 to -.49). This finding is largely consistent with what was proposed by Horwitz et al. (1986) in analysing the reason leading to the anxiety construct of communication apprehension. Horwitz et al. pointed out that the difficulty experienced by foreign language learners in presenting themselves in front of people may give rise to communication apprehension. This difficulty can be ascribed to two factors. One is related to the social situations where language learners are not psychologically familiar with each other and this unfamiliarity may give rise to strong self-consciousness in making presentations in

the foreign language. In the present study, the traditional Chinese classroom culture lacking interaction opportunities may lead to the psychological unfamiliarity and the self-consciousness of language learners. Another factor is related to linguistic deficiency of foreign language learners who, for example, find it challenging to distinguish foreign-language sounds and structures, will tend to be more anxious and worried about communication in class. Though the research of Horwitz et al. focused mainly on the communication anxiety related to the spoken performance, the present study may offer evidence in showing that being exposed to traditional Chinese classroom culture and the linguistic difficulty experienced by Chinese as a foreign language learners at the intermediate-to-advanced level may also lead those performing relatively poorly in writing to experience higher levels of anxiety.

5.2 Intervention Effect of the Learner Corpus and Peer Corrective Feedback in Relieving the Anxiety level

As for research questions concerning the effectiveness of using the two intervention methods – the learner corpus and peer-corrective feedback – in relieving anxiety, the answer is largely positive. The analyses, including the post-intervention data, were used to assess if changes in anxiety and writing scores were related to the group the students were in. The anxiety data were fairly consistent in showing interaction effects between group and pre/post testing; the exception being the Fear of Feedback from Peers and Teachers sub-scale, which did not produce a significant interaction effect. Follow-up analyses indicated that the group experiencing peer corrective feedback as well as the learner corpus self-reported lower levels of anxiety than the group experiencing the learner corpus alone. Both

experimental groups self-reported less anxiety than the control group post-intervention, however.

One possible explanation for the significant effect in reducing the overall anxiety level imposed by these two intervention methods is that anxiety may often result from a cognition that there is a difficult challenge. The use of the learner corpus and peer-conducted feedback may make language learners come to the realization that this challenge is actually common to all the language learners and this realization may reduce their sense of anxiety. In the present study, all the participants (including two whose native language is English) had been exposed to an English teaching environment ever since they were in the primary school. In writing in Chinese, they often had the habit of putting the time adverbial at the end of the sentence: I will not go to the meeting this afternoon, for example. However, in Chinese writing, putting the time adverbial at the end of the sentence is regarded as an error in word order. For example, in the sentence "我不会去会议今天下午 (I will not go to the meeting this afternoon)", the time adverbial "今天下午(this afternoon)" should either be put at the beginning of the sentence or before the verb "不会 (will not)". The instructor made good use of this sentence to show that to commit errors of this type was quite common among those whose first or proficient language is English. Seeing that others may commit similar errors may be a relief for the foreign language learners and this may enhance their confidence. Though support could not be found in previous studies focusing on learning Chinese as a foreign language, the study conducted by Grabe and Kaplan may offer certain implications from the empirical perspective. Since student reviewers, in giving peer corrective feedback to others, had a chance to perceive that other students experienced the same difficulties in

writing as they did, they may undergo a reduction in writing anxiety and an increase in writing confidence. In other words, responding to peer work involves students in each other's writing, so that they can see similar problems and weaknesses in their own writing (Grabe & Kaplan, 1996). The exposure to similar errors committed by others either through the learner corpus or through the use of the peer corrective feedback may lead participants to understand that errors are common in language learning that this understanding may reduce their anxiety in Chinese as a foreign language writing.

Even though the total score of anxiety had been reduced after the intervention process, the finding indicated that the adoption of peer-conducted corrective feedback did not produce a significant intervention effect relieving participants' anxiety concerning the construct of Fear of Negative Evaluation. This was inconsistent with several previous studies, which had generally discovered that the use of peer-conducted corrective feedback reduced foreign language learners' anxiety (see literature review section 2.3.3). One potential explanation for this unexpected finding was that the present study took the form of a workshop series and participants may be aware that in their normal classes, teacher-conducted corrective feedback may still be the major corrective approach. Hence, the notion that the use of peer corrective feedback was only temporary and was used as an intervention methods may make participants less serious about this feedback method. Another potential explanation is that the positive effect of peer corrective feedback on relieving anxiety may somehow be offset by the concern of participants that peer-conducted corrective feedback may not always be correct nor constructive. The result is that they may feel their inadequacy in writing was not fully pointed out and corrected. In this case, they may be afraid that when they were in the normal writing class, they may still be exposed to the corrective feedback from teachers,

which, due to these unfound errors, might very possibly be negative. This was largely consistent with the study conducted by Kurt and Atay (2007) who investigated the effects of peer feedback on the writing anxiety of 86 Turkish prospective teachers of English. In the study, a number of students complained about the person they were paired with who did not take peer feedback seriously and wrote overall comments like 'good' or 'well-written' on their essays. These feedback actually intensified their anxiety since they were afraid that their errors were not discovered at all. In the present study, participants may also be doubtful towards the comments provided by their peers, and they may be worried that their peers did not know a lot and might make wrong comments. The worries of this type may explain why at the post-intervention stage participants receiving the intervention feedback of peer corrective feedback did not demonstrate significantly less anxiety concerning fear of negative evaluation than those who received teacher corrective feedback.

5.3 Intervention Effect of the Learner Corpus and Peer Corrective Feedback in Writing Performance

In the present study, the finding concerning the effect of the two intervention methods on the writing output was quite mixed. On one hand, at the during-intervention stage, participants in the two experimental groups made greater progress in writing from the third session onwards, as reflected by the scores given to their writing tasks compared with those in the control group. Post-hoc tests following the analyses of variances suggested that the greater improvement in writing experienced by those in the experimental groups may be attributed to the teaching methods incorporating the learner corpus. The significant intervention effect of the learner corpus in improving the writing output can be ascribed to the type of writing tasks assigned to participants at the during-intervention stage. In the six

sessions of during-intervention workshops, the writing tasks for each session took the form of sentence-making based on the given key words. This was designed due to the limitation of time. During the session, the instructor used different teaching materials to explain both the key words and sentence structures. Participants in the two experimental groups were exposed to a learner corpus due to which they may understand what errors Chinese as a foreign language learners often commit. This understanding of typical errors may be immediately applied when they were finishing the in-session tasks, which may explain why their chances of making errors were reduced and their writing scores were higher compared with those in the control group.

On the other hand, participants in the two experimental groups did experience greater improvement in writing than those in the control group, though this difference was not significantly reflected across all the four sub-scales of writing scores. Specifically, findings of the present study suggested that the interaction effect of the learner corpus and peer corrective feedback was significant in the sub-scales of Task Response and Coherence and Cohesion but non-significant in the sub-scales of Lexical Resources and Grammatical Range and Accuracy. The finding that the use of the learner corpus and peer corrective feedback exerted significant interaction effect on the two scales – Task Response and Coherence and Cohesion can be interpreted in this way. Participants may become critical readers when exposed to the learner corpus and the writing output of their classmates (Lundstorm & Baker, 2009). Observing how others presented their written work may lead participants to be focused on some aspects of the language and attach great importance to the overall structures (Diab, 2010). Furthermore, when participants accessed the learner corpus and gave peer corrective feedback to others, they may think more and reflect on their own. This conscious reflection might play a role making participants gain understanding concerning

how to respond to the task requirement and how to present a controlling idea in a paragraph (Denny, 2008; Storch, 2005).

The non-significant intervention effect of using the learner corpus and peer corrective feedback in improving the other two subscales – Lexical Resources and Grammatical Range and Accuracy can be discussed in the following way. The first reason may be associated with the features of the writing skill. Writing is a complicated activity that entails a sufficient level of writing conventions, linguistic knowledge, grammar, and vocabulary and needs thinking strategies that let the language learners to express themselves proficiently in a foreign language (Yavuz-Erkan & İflazoğlu-Saban, 2011). In the present study, the writing task invited participants to write a paragraph of around eight characters based on the five given keywords. Participants not only needed to fulfil the general writing requirements but also needed to confront the challenge of writing Chinese characters correctly. To make significant improvement in writing entails consistent effort. The use of the learner corpus for a limited period of time might not suffice to lead to significant effect. In addition, the non-significant intervention effect of the learner corpus can also be attributed to the feature of the learner corpus used in the present study. The Chinese Proficiency Test Dynamic Composition Corpus contains simplified Chinese essays written by learners of Chinese, annotated with different error types (Cui & Zhang, 2013). However, this learner corpus, though demonstrating what types of errors Chinese as a foreign language learner frequently commit, failed to demonstrate to students which forms and meanings in a language are most frequent and thus probably most worth knowing. Due to this shortage of only demonstrating error-containing examples, language learners failed to get access to the massive amounts of input of authentic language (input flood) or improve their writing significantly (Millar, 2011). The

deficiency in having abundant authentic input might be an element that offset the positive effect of using a learner corpus as observed in the during-intervention stage.

Another factor is also related to the improper use of the learner corpus of Chinese Proficiency Test Dynamic Writing Corpus. This corpus collected the writing outputs of those previously sitting the test. The writing works were presented at word level, sentence level and paragraph level. However, in this research, only sentence-level materials were quoted as teaching materials and errors in the sentences were clearly annotated. This potentially gave some participants the hint that writing performance was largely dependent on grammar, and that committing grammar errors leads to poor ratings of writing outputs. Such an interpretation may have led to some participants employing a fixed writing pattern, which may enhance grammatical accuracy but adversely influence grammatical range. For example, in the present study, some of participants demonstrated indications that they were reluctant to write composition in Chinese because of the difficulty in expressing ideas through correct and varied clauses which must be written according to grammar rule. They may feel afraid that once they tried a wider range of sentence structures or more complicated sentence structures, errors made. In this case, in the main study, both in the control group and in experimental groups, there were around one fifths of participants who worked out a system to use the similar structure to respond to every writing task. For example, if the given phrase is an adjective, such as “高兴” (happy), they would invariably use the structure “我很” (I very) with “高兴” (happy). As a result, they would come up with the response as “我很高兴” (I am very happy). The response is error free, but repetitively using this structure instead of trying to convey ideas through more varied structures is a kind of avoidance behaviour that

may explain why their writing did not experience significantly greater improvement compared with those in the Control Group.

As for the peer corrective feedback, one possible explanation for the non-significant effect on Lexical Resources and Grammatical Range and Accuracy is that the lack of training, prior to encouraging learner to make peer corrective feedback, may render such feedback unreliable. Participants giving feedback to their peers may make mistakes and may present comments that showed their own inadequacy in the knowledge of Chinese as a foreign language writing. In the present study, even though the instructor showed to participants in Experimental Group B that feedback needed to be made in accordance with sub-scales of writing, there was, largely due to the limitation of time, no actual training carried out to teach participants how to offer feedback. As a result, among 210 feedbacks made over the six sessions by 35 participants in Experimental Group B, merely 32 of them (less than 16%) presented feedback based on the sub-scales of Task Response, Coherence and Cohesion, Lexical Resources and Grammatical Range and Accuracy as recommended by the instructor. In addition, among 210 feedbacks, 140 of them (up to 67%) focused on making corrective feedback in terms of grammar and among these 140 pieces of feedback, 32 of them gave feedbacks that were improper or inaccurate. For example, in response to writing a sentence using the phrase “希望” (hope), one participant wrote, “早点通过考试是我的希望” (Passing the test soon is my hope). The feedback the participant received was that “希望” is a verb and cannot be used as a noun. However, under different contexts, “希望” could be both used as a noun and as a verb. These incorrect feedbacks may cause more confusion and refrain participants from trying different sentence structures. This explanation is largely consistent with the finding of

studies of Zhang and Rahimi (2014), who maintain that students consider teachers as their prime source of knowledge and expertise, and without adequate training, students may feel at a loss about how to make feedback and what types of feedbacks should be presented. In this case, training to peer corrective feedback givers seems to be a necessity (Bruton & Samuda, 1980), since without training students may not know how to correct errors (Sato & Lyster, 2012). Trainings may include both the linguistic awareness (identifying errors, for example) and the feedback-making strategies such as covering all the sub-scales of writing in the comments and seeking for further clarification from language instructors or other resources if there is something unsure about). The facilitating effect of giving a clear guidance and training was also evident in the study carried out by Xu, Zhang and Parr (2022), which explored the effect of peer feedback on the writing performance of those learning English as a foreign language. In this study, clear guiding questions for provision of feedback were listed, including encouraging feedback givers to list at least one strength of the submitted composition and to generate a total of at least eight pieces of feedback included in a given list of feedback aspects. This focus on giving adequate training and guidance may help to explain why participants in Xu, Zhang and Parr's study (2022), after being exposed to peer feedback for one semester, outperformed those receiving collective feedback from their teachers. Future studies can be designed to examine the differences in the effect exerted by peer corrective feedback given by the trained students and untrained students.

Another possible explanation is that in the present study, all participants were enrolled in the same university and at the same grade. Even though the process of giving and receiving peer corrective feedback was kept anonymous, they might still feel at unease about giving critical and specific comments. In the present study, it was found that 29 among the 210 pieces of

feedback gave very short comment such as “well-done” or “good writing”. This very general feedback is of little value in making language learners understand problems, if any, that exist in their writing and may make them lose trust in the peer corrective feedback. Research carried out by Christianakis (2010) on peer review has demonstrated that social face-saving can derail quality feedback and can even change what students choose to write about. When students are concerned about how their peers will perceive them if they give critical feedback or how peers will judge their writing, they tend to provide only general praise rather than suggestions for improvement (Christianakis, 2010). Feedback only containing general compliment may make participants feel that their writing cannot be improved since the feedback they received may not be specific and may not demonstrate the areas they need to work at.

5.4 Educational Implications of the study

In addition to the theoretical implications, the findings from the present study can have implications of educational value. Although the data were collected targeting international students learning Chinese as a foreign language, the implications obtained from these findings can be of value to researchers, teachers and curriculum developers for other language learners in China and Chinese learners throughout the world.

5.4.1 Implications concerning Anxiety

The finding that anxiety and writing performance were adversely correlated highlighted the value of reducing foreign language anxiety in foreign language learning. As is discussed in 5.2, those with lower Chinese proficiency may feel more anxious due to the difficulties encountered at the transitional period from Pinyin System to the morpho-syllabic system,

and due to the traditional classroom culture in China. With this in mind, it is suggested that the following measures may be taken.

On one hand, for those experiencing the transitional period from the phonetic Pinyin system to the graphic character system of Chinese, it is suggested that an electronic version of language learning and testing be adopted. For example, computer-aided composition writing can be an alternative form to assess participants' writing performance. With the help of computers, students can type in Pinyin and select the correspondent character from a range of options having the same pronunciation. In this case, they don't need to remember the specific strokes or structure of the character. This may reduce the difficulty at the transitional stage from Pinyin system to the morpho-syllabic system and reduce the anxiety perceived by Chinese as a foreign language learners at this stage.

On the other hand, since the anxiety of the participants in the present study was reflected partly through the cognitive anxiety, such as feeling stressed when knowing their writing task was to be assessed by others, measures should be taken to create a safe environment in which students can use the target language with less fear of negative evaluations. In this case, interactive activities may be incorporated into Chinese as a foreign language classes. Requiring an individual student to give a response to a given question may lead to increased anxiety in certain cases, particularly among those who may perceive themselves as having a low level of proficiency in Chinese (Tsui, 2000). Tian (2002) attributed anxiety felt by students when responding to a teacher individually to the phenomenon that a learners' weakness in the language may bring about negative evaluation from the teacher under the concentrated gaze of one's peers. The worry of being negatively evaluated "under the concentrated gaze of

one's peers" was a typical example of the spotlight effect, which is a term used by social psychologists (Gilovich & Savitsky, 1999; Ross & Sicoly, 1994, McConnell, 2009) to refer to the possibility that people may overestimate how much other people notice about them. In other words, they may think there was a spotlight on them at all times, highlighting all of their mistakes or flaws, for all the world to see. By contrast, putting students into groups and encouraging them to work collectively in revising and improving a composition may lessen the anxiety that can stem from the spotlight effect. This is because members of a group could submit the revised composition in the form of group project. In this case, members of the team may feel less stressed since the responsibility of ensuring the quality of the revised composition may be distributed among all the group members.

5.4.2 Suggestion concerning the Use of the Learner Corpus and the Peer-corrective Feedback in Improving Students' Writing Performance

The findings indicated that the use of the learner corpus and peer corrective feedback can reduce the overall anxiety level experienced by participants. It is thus suggested that such tools can be incorporated in the teaching Chinese as a foreign language writing, in order to reduce anxiety levels felt by students and hence complement traditional teaching methods. However, the findings that these corpus and feedback changes were only effective in supporting the development of certain aspects of writing performance needs further research, particularly to contrast these findings with the more positive conclusions drawn from the findings of previous studies (see section 2.2 & 2.3) in the literary review chapter for details). This finding has the following implications.

Encouraging students to give feedback to their peers is suggested since it is in this process that students can both realize that errors are common among their peers and learn to reflect on how their own writing can be improved (McConlogue, 2015). However, language instructors also need to realize that peer corrective feedback may sometimes be less accurate due to their inadequate language proficiency compared with those given by instructors. Students as givers of feedback may have inadequate knowledge concerning how to offer feedback. In this context, it is suggested that the instructor, when trying the method of peer corrective feedback in teaching Chinese as a foreign language, needs to summarize the corrective feedbacks given by peers and clarify ideas about the wrongly-made feedbacks. For example, after the peer corrective feedback was conducted, the instructor may recollect the writing output of all the students and investigate what errors were committed by students and what wrong feedbacks were given by peer reviewers. Then in the class the instructor could give collective feedback to all the students concerning the quality of the feedbacks and point out the areas that need to be improved in future peer reviewing. In this case, students may still harvest benefit from giving peer corrective feedback by accessing the chances of observing what errors their peers make commit and then make reflections over their own writing; meanwhile, the drawbacks of inaccurate feedback may be reduced since the teachers' feedback may serve the role of clearing out the confusion brought about certain improper feedback given by their peers.

As suggested by during-intervention writing outputs, those in experimental groups had larger gains in writing scores compared with those in the Control group, and the larger gains were more possibly ascribed to the use of the learner corpus. This may offer evidence showing that the learner corpus may be used as an important tool in teaching Chinese as a foreign

language writing. A learner corpus composed of the non-native's own writing can provide a source for learning, discovering and correcting errors (Seidlhofer, 2002; Mukherjee & Rohrbach, 2010). The use of the learner corpus may familiarize language learners with errors that are frequent among them and thus may reduce the incidence of making similar errors. However, the finding that the learner corpus did not exert significant intervention effect on all the four sub-scales of writing performance offers implications for future teaching. However, student should also be sufficiently exposed to correct input in order to compare the native and non-native corpora of learners and to get exposed to an abundance of correct input. For example, with the native corpora often demonstrating appropriate and diversified lexical resources and sentence structures, Chinese as a foreign language learners may get a chance to expand their vocabulary reserve and grammatical range instead of mainly focusing on how to avoid errors as shown in the learner corpora. This comparison can help students identify different uses between native and non-native language user and understand how to make improvement (Milton & Tsang, 1993; Granger & Tyson, 1996; Peng, 2013). In this case, it is suggested that the learner corpus is used as an important complement, instead of a substitute, to the native corpus.

5.5 Limitations and Possible Future Research Directions

Correlation analyses revealed that as for those learning Chinese as a foreign language, the level of anxiety was correlated with the writing performance. Analyses of variances provided evidence supporting the effectiveness of using the learner corpus and peer corrective feedback in reducing the anxiety level; yet, findings were inclusive about the effectiveness of

using these two intervention approaches in enhancing all the aspects of the writing performance of Chinese as a foreign language learners. However, these findings need to be viewed with caution since there are limitations that require discussion and are important to consider for further research conducted in this area.

To begin with, one important limitation of the present study is that the pre-and-post-intervention writing tasks and during-intervention writing tasks were not kept consistent, thus possibly causing confusion to the investigation and understanding of the effect of intervention methods on writing improvement. The during-intervention data elicited from participants' writing outputs from Session Three onwards indicated that those getting exposed to the teaching methods incorporating the use of the learner corpus had greater gains in writing performance compared with those in the control group. However, the data elicited from participants' writing outputs at the pre-and-post-intervention stages indicated that the interaction effect was only significant in two sub-scales of writing – Task Response and Coherence and Cohesion. The inconsistent finding concerning the influence of the two intervention methods on writing improvement may be attributed to the inconsistency of the writing tasks assigned to participants at different stages, which is one limitation of the present study. At the during-intervention sessions, due to the consideration of time limitation, the instructor gave five keywords and invited participants to write five independent sentences instead of writing a paragraph comprising of around eighty characters as required in the pre-and-post intervention writing tasks. In assessing the during-intervention writing outputs, the instructor gave scores by considering how well participants fulfil the four subscales – Task Response, Coherence and Cohesion, Lexical Resources and Grammatical Range and Accuracy. However, since there were one hundred and twelve

participants involved in the present study and there were six writing tasks assigned to them at the during-intervention stage, the instructor did not record four respective scores for four sub-scales at this stage. Instead, the instructor gave an overall score ranging from zero to two to each sentence. By contrast, the post-intervention writing took the form of paragraph-level writing, which is more complex and involves a larger reserve of knowledge which may demand more attention and efforts. Meanwhile, the instructor gave and recorded four sub-scores based on participants' performance in four sub-scales of writing. The inconsistency as discussed above may be a factor leading to the inconsistent finding at different stages of the present study. For future studies, even though it may still be hard to set aside half an hour during the intervention sessions and invite all participants to finish a paragraph-level writing task in each session, it is advised that writing tasks of the same requirement as set in the pre-and-post-intervention stages may be assigned as homework. By stating clearly that these writing tasks are only for the purpose of examining the effect of intervention methods and will by no means influence their performance in the normal curriculum, the instructor may succeed in persuading participants to write a composition as a homework within thirty minutes and without drawing reference from any resources. In addition, the during-session writing outputs can be evaluated with less frequency but strict consistency with the assessment measures used in the pre-and-post-intervention stages. In other words, if researchers cannot afford the time to evaluate all the writing outputs by giving and recording sub-scores to four sub-scales, picking out a certain proportion of samples from both experimental groups and the Control Groups will be a suggested method to achieve consistency in evaluation and to offer evidences in tracking participants' writing improvement.

Findings of the present study indicated that the use of the learner corpus and peer corrective feedback did not exert a significant interaction effect in all of the four sub-scales of writing. However, the reason for this finding might not be that these two intervention approaches were not effective but that the intervention duration was not long enough: six sessions may not be adequate enough to show significant gains. Given that participants in the present study were at intermediate-to-advanced level of Chinese proficiency, the writing requirement at this stage involved special challenges as described in section 2.1.1 in the literary review. Due to the complexity of writing in Chinese, the intervention effect might not surface immediately after the intervention methods were adopted. For the future studies, it is suggested that a delayed measurement of participants' anxiety level and writing performance should be designed to understand whether the anxiety decrement can be sustainable and whether the sustained anxiety reduction may then impact on participants' writing performance at a later stage.

The peer corrective feedback of the study reported in this thesis took the reciprocal form, which may make it hard to distinguish whether giving the feedback and/or receiving the feedback could impact participants' anxiety and writing performance. In the present study participants in Experimental Group B switch between the roles of feedback givers and feedback receivers. There is the possibility that the experience of giving such feedback may help participants understand their own errors and solutions better. Additionally, the experience of receiving peer corrective feedback may make it more likely for participants to understand how to give corrective feedback to their peers in the future, suggesting a reciprocal relationship between the two. Future research is suggested to examine the value

of giving peer corrective feedback versus receiving peer corrective feedback and to examine any potential reciprocal effects.

In addition, personal distinction, which is an important factor as discussed in the literature review in understanding the influence of anxiety, was not taken into account in the present study. The finding that reduced anxiety was not associated with improvements in all aspects of writing performance suggests that anxiety is not a fire that needs to be stamped out for students to be successful (Keeley, 2008). Individual difference may need to be taken into account when examining the influence of anxiety. For example, participants' different motivation for future development may also influence how they might react when anxiety level changed. Gardner and Lambert (1959) defines foreign language motivation as the desire to improve language proficiency for the sake of goals like gaining qualifications or job promotion or a desire to improve language proficiency in order to assimilate themselves better into the culture of the target language. In the present study, participants possessed different types and different degrees of motivation: some of them wanted to be enrolled in graduate programs in Chinese universities which entail the certificate of Chinese Proficiency Test Level Six while others may simply want to finish the undergraduate study, get the bachelor degree and then go back to their home country where Chinese is seldom used. Thus, different levels and types of motivation may influence how much effort they wanted to devote to the learning of Chinese, thus influencing their writing performance. This was a factor interwoven with the sense of anxiety since motivation may incur anxiety, but motivation may also play a compensatory role to counteract the effect of anxiety by propelling individuals to pay more effort. The role of motivation may help explain the finding

of the current study that the reduction of anxiety and improvement of writing performance may not be a simple linear one. For the highly-motivated participants, they might respond to indications of failure or negative feedback by applying additional effort (expending more time doing pattern drills and vocabulary rote learning for example) so as to increase the available capacity of knowledge. Yet, the less motivated ones might simply avoid confronting the challenging tasks even though they do not suffer a high level of anxiety. Future studies incorporating interviews to discover the causes of anxiety, to track the changes of anxiety and to explain the individual response to anxiety may give further insight into the understanding of the complicated relation between anxiety and performance.

Another limitation of the present study is that data analyses were only carried out to track the anxiety decrement and writing improvement in accordance with the groups they were in. However, those with higher anxiety level at the pre-intervention stage may experience greater influence from the intervention methods than those with lower anxiety level at the pre-intervention stage. It is also possible that those who self-reported lower anxiety level at the pre-intervention stage may lose incentive to work hard at Chinese as a foreign language writing when their anxiety level was further reduced at the post-intervention stage. All these possibilities need to be examined by future studies where participants can be divided into different groups (high anxiety group, medium anxiety group and low anxiety group) in accordance with their self-reported anxiety level at the pre-intervention stage. Putting participants into different groups according to their anxiety level may help future researchers to examine which group would benefit the most from the use of the learner corpus and the

peer corrective feedback both in terms of their perceived anxiety level and their writing proficiency.

5.6 Conclusion

The findings of the study reported in this thesis contributed quantitative evidence to the investigation of the complex correlation between foreign language anxiety and foreign language writing performance. In addition, the significant interaction effect due to the use of the learner corpus and peer corrective feedback was found in reducing the general anxiety level of participants. This may offer positive evidence for using these two intervention methods in teaching Chinese as a foreign language. During-intervention data were indicative of the favourable contributions made by the use of the learner corpus in enhancing writing performance, which may support the value of using the learner corpus in teaching Chinese as a foreign language. Yet, the interaction effect across three groups using different corpora and different corrective methods did not appear to enhance all aspects of writing performance according to the pre-and-post intervention data analyses. This suggested that these two intervention methods may be used only as a complement instead of a substitute for the traditional teaching methods. Overall, the findings may inform the development of theories of foreign language anxiety, as well as the development of improved teaching approaches for pedagogical practice, especially in the domain of teaching Chinese as a foreign language.

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Appendix I Information Sheet

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Date: _____

Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language

Information Sheet for Research Participants (Main Study)

My name is Hongwei Hao, a PhD student in the College of Education, University of Canterbury and I am working under the supervision of Professor John Everatt and Dr Amir Sadeghi. The purpose of my research is to examine the effects of applying sections of the Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a learner corpus for students learning Chinese as a foreign language and the effects of encouraging the same students to conduct peer corrective feedback with this learner corpus. This letter is to provide you with the required information which is necessary for you to make an informed decision regarding your participation in this study.

If you agree to take part in this study, you will have three options. If you do not wish to take part in workshops, then you will act as a Control Group by just completing some assessments – you will then experience your normal classes with no additional workshops. You will be asked to complete some questionnaires and a writing task. The questionnaires will ask you for some background information about you (eg, your age) and Chinese experience (eg, when you first started to learn Chinese) and your experiences when using Chinese (eg, do you feel anxious when using Chinese). These questionnaires will take no more than 30 minutes to complete. The writing task will simply ask you to write a short Chinese essay on a specific topic and will take no longer than 30-45 minutes. The questionnaires and writing task will be completed twice, with a five-week period in-between.No individual identifying information will ever be made public – only grouped data will be reported.

During the five-week period, two types of workshops will be organized, with each type including five sessions. For those volunteering to attend the workshops, the researcher/tutor will introduce the learner

corpus and provide opportunities to practice Chinese using the corpus. The workshop will be conducted in the students' classrooms and after class hours. Each workshop will take approximately 40-45 minutes, with about a further five minutes to settle into the session. Participation in the workshops will not affect the marks for any Chinese courses, or the students' normal class participation. The schedule for these will be in accordance with students' availability. You can choose to be in Experimental Group A and experience Type-A workshop sessions in which the learner corpus will be used and teachers will introduce grammatical principles, demonstrate samples quoted from learner corpus, inviting you to write in class and then make corrective feedback. You can also opt to take part in Experimental Group B and experience Type-B workshop sessions in which both the learner corpus and peer feedback correction will be adopted: the teacher will demonstrate samples quoted from learner corpus, similar to the first workshops, but you will also be asked to provide peer corrective feedback on the samples quoted from learner corpus. These tasks are being conducted purely for the purpose of my research project. The schedule for these will be in accordance with your availability.

Comparisons of pre-workshop and post-workshop measures will be used to assess the impact of the teaching materials and procedures. After the data has been collected, you will be able to receive an overview of the study and will be provided with the opportunity to attend two additional workshops explaining the use of the corpus and teaching materials – this will be open to all.

Please be assured that participation in this study is completely voluntary. If you choose to participate, you have the right to withdraw from the study at any time without penalty. If you withdraw, I will remove the information relating to you.

I will ensure the confidentiality of all collected data. Participants will only give their personal identity information on cover pages which will be separated by the researcher from the questionnaires or writing assignments once coded. The researcher will then set up an electronic file that relates each participant to a code and then write the code on the questionnaires and writing assignments. All personal identity information will always be physically stored in locked facilities and password protected files that are only accessible to the researcher herself. I will make sure that no individual information will be identified in future publications or reports of the findings. All data will be securely stored in password protected university server and locked storage at the University of Canterbury, New Zealand, for ten years following the study. It will then be destroyed.

The results of this study will be used for my thesis which will be publicly available through the University of Canterbury library. The results also may be reported at conferences or published in academic journals. In the consent form, you will be invited to provide your email address so that a summary of the results, without any personal identity information, can be sent to you through the email address. If you are not interested in receiving the summary, you can choose not to provide your email address. Your email address will never be used for purposes other than making the summary of research available to you.

This research is supervised by Professor John Everatt and co-Supervised by Dr Amir Sadeghi. If you have any questions about the study, please contact me (details above), or one of the two supervisors, as follows:

Professor John Everatt (Supervisor): john.everatt@canterbury.ac.nz

Dr. Amir Sadeghi (Co-Supervisor): amir.sadeghi@canterbury.ac.nz

If you have a complaint about the study, you may contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

If you agree to take part in this study, please complete the attached consent form and return it to me in the envelope provided.

I am looking forward to working with you and thank you for considering taking part.

Hongwei Hao

hongwei.hao@pg.canterbury.ac.nz

Mobile NZ: (+64) 021687607

Mobile China: (+86) 15905317607

Appendix II Consent Form

College of Education, Health and Human Development

School of Teacher Education

Telephone: +64 021687607

+86 15905317607

Email: Hongwei.hao@pg.canterbury.ac.nz

Date: _____

Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language

Consent Form for Research Participants (for Both Pilot and Main Study)

Hongwei Hao has briefed me on the study she is working on this year:

I have been given a full explanation of this project and have been given an opportunity to ask questions.

I understand what will be required of me if I agree to take part in this project.

I understand that my participation is voluntary and that I may withdraw at any stage without penalty.

I understand that any information I provide will be kept confidential to the researcher and that any published or reported results will not identify me.

I understand that all collected physical data for this research will be securely kept in locked facilities at the University of Canterbury when it is not being used and that data in electronic form will be password protected for ten years following the study. It will then be destroyed.

I understand that I will be able to receive a report on the findings of this study and will be offered a chance to experience the most effective measure.

I understand that if I require further information I can contact Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: (+64) 3 3642987 ext. 4003 or Hongwei Hao at

Hongwei.hao@pg.canterbury.ac.nz.

If I have any complaints, I can contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand. Email: human-ethics@canterbury.ac.nz.

By signing below, I agree to participate in this research project.

I want to be in Control Group, Experimental Group A or Experiment B. (Circle the one that you want to participate in. You only have one option.)

I want to receive the research summary through my email address. I understand that my email address will not be used by the researcher for any purpose other than making me access the research summary.

Name : _____

Date : _____

Signature : _____

Email address : _____

Please return this completed consent form to your class instructor in the envelope provided.

Appendix III Ask for Permission for Using Foreign Language Classroom Anxiety Scale

Asking for your kind permission of using FOreign Language Classroom Anxiety Scale in my Doctoral study

Hongwei Hao <hongwei.hao@pg.canterbury.ac.nz>
周二 2019/7/30 10:59
收件人: horwitz@austin.utexas.edu <horwitz@austin.utexas.edu>

Dear Professor Horwitz,

I am a doctoral student at the University of Canterbury, New Zealand and currently I am working at my thesis in educational studies. I am writing to inquire whether it is possible to get your written permission to use the Foreign Language Classroom Anxiety Scale in my research study. My research is being supervised by Professor John Everatt and Doctor Amir Sadeghi.

The anxiety experienced by second language learners has long been an intriguing research domain to me. I have been teaching Chinese to international students in China and in the United States (Portland State University) for 18 years and have formed my understanding in this area. The teaching experience in second language acquisition is also the major element pushing me to explore the reasons, impacts as well as possible solutions to this issue.

The thesis I am working at is tentatively titled as Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language.

The purpose of this study is to examine the effects of applying sections of the Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a learner corpus for students learning Chinese as a foreign language and the effects of encouraging the same students to conduct peer corrective feedback with this learner corpus. The research will involve around 170 international (i,e., non-Chinese) year 1 and 2 students in the department of international studies at a University in China. The students will be invited to complete the Foreign Language Classroom Anxiety Scale (Horwitz et al., 1986) (English Version). These same students will also be required to write a paragraph of around eighty words on a specific topic without the use of dictionaries. Students will then be invited to attend two five-session workshops. Any student not wishing to take part in these workshops will be asked to act as a control group by just completing pre- and post-workshop assessments - these students will then experience their normal classes with no additional workshops. Half of those students attending the workshops will experience the first workshop sessions in which the learner corpus will be used and teachers will introduce grammatical principles, demonstrate samples quoted from learner corpus, inviting students to write in class and then make corrective feedback. The other half of the students will experience the second set of workshops in which both the learner corpus and peer feedback correction will be adopted: the teacher will demonstrate samples quoted from learner corpus, similar to the first workshops, but students will also be asked to provide peer corrective feedback on the samples quoted from learner corpus. All students in the study will complete a post-test which will measure the students' anxiety level as well as their writing skills - similar to the assessment used prior to the workshops. Comparisons of gains between pre and post measures across the two workshop groups compared to control students will assess the effects of using the corpus - comparisons between the two workshop groups will assess the impact of the peer feedback procedures.

Since the study will revolve around the impact imposed on anxiety level, a reliable and well-recognized instrument carries substantial weight and I would be greatly obliged if you could give me your kind permission.

I would like to use the Foreign Language Classroom Anxiety Scale under the following conditions:

- I will use the Foreign Language Classroom Anxiety Scale only for my research study and will not sell or use it for any other purposes
- I will include a statement of attribution and copyright on all copies of the instrument. If you have a specific statement of attribution that you would like for me to include, please provide it in your response.
- At your request, I will send a copy of my completed research study to you upon completion of the study and/or provide a hyperlink to the final manuscript

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail at Hongwei.hao@pg.canterbury.ac.nz.

Sincerely,

Hongwei, Hao

Appendix IV Permission to Use Foreign Language Classroom Anxiety Scale

发件人: Horwitz, Elaine K <horwitz@austin.utexas.edu>
发送时间: 2019年7月30日 13:59
收件人: Hongwei Hao <hongwei.hao@pg.canterbury.ac.nz>
主题: Re: Asking for your kind permission of using FOreign Language Classroom Anxiety Scale in my Doctoral study

I appreciate your interest in my work.
I grant you permission to use the Foreign Language Classroom Anxiety Scale in your research. Specifically, you must acknowledge my authorship of the FLCAS in any oral or written reports of your research. I also request that you inform me of your findings. Some scoring information about the instrument can be found in my book *Becoming a Language Teacher: A Practical Guide to Second Language Learning and Teaching*, 2nd edition, Pearson, 2013.
Best wishes,
Elaine Horwitz

Appendix V Ask for Permission for Using Second Language Writing Anxiety Inventory

Asking for your kind permission of using Second Language Writing Anxiety Inventroy in my Doctoral study

Hongwei Hao <hongwei.hao@pg.canterbury.ac.nz>
周二 2019/7/30 11:18
收件人: t22035@ntnu.edu.tw <t22035@ntnu.edu.tw>

Dear Professor Cheng,

I am a doctoral student at the University of Canterbury, New Zealand and currently I am working at my thesis in educational studies. I am writing to inquire whether it is possible to get your written permission to use the Second Language Writing Anxiety Inventory (Y-S Cheng, 2004) in my research study. My research is being supervised by Professor John Everatt and Doctor Amir Sadeghi.

The anxiety experienced by second language learners in writing has long been an intriguing research domain to me. I have been teaching Chinese to international students in China and in the United States (Portland State University) for 18 years and have formed my understanding in this area. The teaching experience in second language acquisition is also the major element pushing me to explore the reasons, impacts as well as possible solutions to this issue.

The thesis I am working at is tentatively titled as Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language.

The purpose of this study is to examine the effects of applying sections of the Chinese Proficiency Test (HSK) Dynamic Writing Corpus as a learner corpus for students learning Chinese as a foreign language and the effects of encouraging the same students to conduct peer corrective feedback with this learner corpus. The research will involve around 170 international (i.e., non-Chinese) year 1 and 2 students in the department of international studies at a University in China. The students will be invited to complete the Second Language Writing Anxiety Inventory (Y-S Cheng, 2004). These same students will also be required to write a paragraph of around eighty words on a specific topic without the use of dictionaries. Students will then be invited to attend two five-session workshops. Any student not wishing to take part in these workshops will be asked to act as a control group by just completing pre- and post-workshop assessments - these students will then experience their normal classes with no additional workshops. Half of those students attending the workshops will experience the first workshop sessions in which the learner corpus will be used and teachers will introduce grammatical principles, demonstrate samples quoted from learner corpus, inviting students to write in class and then make corrective feedback. The other half of the students will experience the second set of workshops in which both the learner corpus and peer feedback correction will be adopted: the teacher will demonstrate samples quoted from learner corpus, similar to the first workshops, but students will also be asked to provide peer corrective feedback on the samples quoted from learner corpus. All students in the study will complete a post-test which will measure the students' anxiety level as well as their writing skills - similar to the assessment used prior to the workshops. Comparisons of gains between pre and post measures across the two workshop groups compared to control students will assess the effects of using the corpus - comparisons between the two workshop groups will assess the impact of the peer feedback procedures.

Since the study will revolve around the impact imposed on anxiety level, a reliable and well-recognized instrument carries substantial weight and I would be greatly obliged if you could give me your kind permission.

I would like to use and reproduce the Second Language Writing Anxiety Inventory (Y-S Cheng, 2004) under the following conditions:

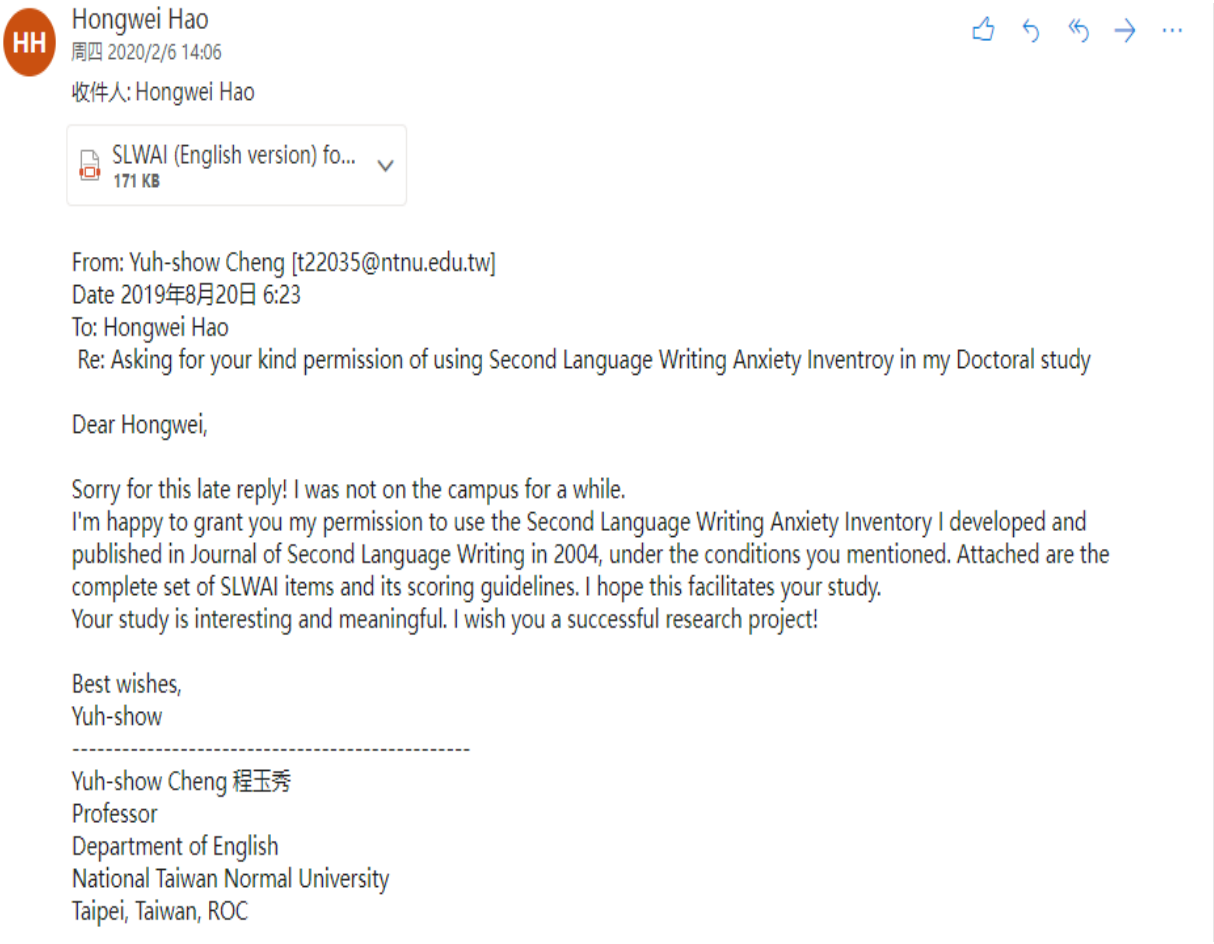
- Since the second language referred to in my research is Chinese, the exclusive reproduction of this inventory made in this research is to change "English" to "Chinese".
- I will use the Second Language Writing Anxiety Inventory only for my research study and will not sell or use it for any other purposes
- I will include a statement of attribution and copyright on all copies of the instrument. If you have a specific statement of attribution that you would like for me to include, please provide it in your response.
- At your request, I will send a copy of my completed research study to you upon completion of the study and/or provide a hyperlink to the final manuscript

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail at Hongwei.hao@pg.canterbury.ac.nz.

Sincerely,

Hongwei, Hao

Appendix VI Permission to Use Second language Writing Anxiety Inventory



Hongwei Hao
周四 2020/2/6 14:06
收件人: Hongwei Hao

SLWAI (English version) fo...
171 KB

From: Yuh-show Cheng [t22035@ntnu.edu.tw]
Date 2019年8月20日 6:23
To: Hongwei Hao
Re: Asking for your kind permission of using Second Language Writing Anxiety Inventroy in my Doctoral study

Dear Hongwei,

Sorry for this late reply! I was not on the campus for a while.
I'm happy to grant you my permission to use the Second Language Writing Anxiety Inventory I developed and published in Journal of Second Language Writing in 2004, under the conditions you mentioned. Attached are the complete set of SLWAI items and its scoring guidelines. I hope this facilitates your study.
Your study is interesting and meaningful. I wish you a successful research project!

Best wishes,
Yuh-show

Yuh-show Cheng 程玉秀
Professor
Department of English
National Taiwan Normal University
Taipei, Taiwan, ROC

Appendix VII Writing Task

Directions: please use the following five phrases to write an article of around eighty characters.

You have thirty minutes to finish this assignment. Be sure to use all these five phrase.

压力（pressure）、适合(suitable)、缓解(relieve)、乐观(optimistic)、 偶然(accidental)

Appendix VIII Permission from Ethics Committee

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: 2019/61/ERHEC

17 October 2019

Hongwei Hao
School of Teacher Education
UNIVERSITY OF CANTERBURY

Dear Hongwei

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal "Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language" has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your emails of 21st September and 16th October 2019.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely

pp. R. Robinson

Dr Patrick Shepherd
Chair
Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research.

F E S

Appendix IX Permission from Ethics Committee (Amendment 1)

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE
Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: 2019/61/ERHEC Amendment 1

18 May 2020

Hongwei Hao
School of Teacher Education
UNIVERSITY OF CANTERBURY

Dear Hongwei

Thank you for your request for an amendment to your research proposal "Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language" as outlined in your email dated 18th May 2020. I am pleased to advise that this amendment has been considered and approved by the Educational Research Human Ethics Committee.

Please note that should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please advise.

We wish you well for your continuing research.

Yours sincerely

pp R. Robinson

Dr Patrick Shepherd
Chair
Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research.

F E S

Appendix X Permission from Ethics Committee (Amendment 2)

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE
Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: 2019/61/ERHEC Amendment 2

24 August 2020

Hongwei Hao
School of Teacher Education
UNIVERSITY OF CANTERBURY

Dear Hongwei

Thank you for your request for an amendment to your research proposal "Comparisons of the Effectiveness of Different Corrective Feedback Methods and Corpora with International Students Learning Chinese as a Foreign Language" as outlined in your emails dated 18th and 20th August 2020. I am pleased to advise that this amendment has been considered and approved by the Educational Research Human Ethics Committee.

Please note that should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please advise.

We wish you well for your continuing research.

Yours sincerely

pp R. Robinson

Dr Patrick Shepherd
Chair
Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research.

F E S

Appendix XI Sample Workshop Session Teaching Procedures

Chinese typical resultative construction is unique in that this structure can simplify the sentence and express complicated ideas within one sentence. As long as the semantic consistency can be achieved, verb and adjectives can be employed after predicate verb to indicate the result of the predicate verb. Though this usage can best reflect the principle of syntactic economy and flexibility, students learning Chinese as an additional language find it quite challenging to decide whether to add an object after the resultative constructions. In a research carried out by National Chinese Institute of Hunan Normal University, among 178 sentences written by Chinese learners using the resultative constructions, 98 can be categorized as showing erroneous deviations. Meanwhile, among the 110 sentences written by Chinese learners using the resultative constructions, 80 are labelled as committing deviations. In most of other languages, if adjectives or verbs are to be used as complements to predicate verbs, then it is preferable to adopt two sentences instead of using the resultative structure. The difficulty of learning this unique pattern of learning is further added to since the principles of judging whether such resultative constructions can be followed by objects are of great complexity and can hardly be explicitly explained in class.

Here I'd like to cite two questions from HSK Dynamic Composition Corpus to illustrate this special structure.

我　　没　　( )天上 的　　飞机

I　　not　　( ) in the sky　　the plane.

A. 看　　look

B. 看见　　look and see

C. 看了　　have looked

D. 看的　　looking

上次　　你们　　没有　　洗 （）我的　　鞋。

Last time　　you　　not　　wash () my　　shoes.

A. 得干净　　perfectly

B. 干净了　　have cleaned

C. 干净　　clean

D. 很干净　　very clean

In the first example, a V-C-O structure is examined, where “V” refers to the predicate verb “look”, “C” refers to the complement “see” and “O” refers to the object “in the sky the plane”. For this sentence, alternative B is correct. In the second example, still the V-C-O structure is examined, and here the role of complement is taken by the adjective “clean”. For this sentence, alternative C is correct. The point of these two questions is to examine whether students can well decide what kind of resultative constructions can be followed by objects.

In the control class, the teacher will be responsible for explaining the seven elements that can help students decide whether objects shall follow the resultative constructions, and all these seven elements will be illustrated by two or three examples (from the textbook). In the experimental class A, ten sentences containing erroneous deviations concerning resultative constructions from HSK learner corpus will be presented and explained. Five key words will be given to students and they are supposed to make sentences with these key words using the resultative sentence structure. The teacher will then give feedback concerning students’ performance. In the experimental class B, ten sentences containing erroneous deviations concerning resultative constructions from HSK learner corpus will be presented and explained. Five key words will be given to students and they are supposed to make sentences with these key words using the resultative sentence structure. The language instructor will collect the written output and distribute them among participants, inviting them to give peer corrective feedback. All the information of participants will be kept strictly anonymous since then only need to write their code instead of their names on the answer sheet and space to write the code is designed on an inward-folded side.