


**The Effects of the Medium of Planning on the Written Performance
in an EFL Context**

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ABSTRACT

The present study investigated the effects of the medium of planning of high proficiency and low proficiency EFL learners on written performance. Three aspects of performance were examined including fluency, accuracy and complexity. It was aimed at finding out what medium of planning can enhance fluency, accuracy and complexity of different learners' writings.

An experiment was conducted to find out the answers to the research questions. Twenty students from the Chinese University of Hong Kong were recruited. They were divided into 2 proficiency groups and each group had to do two writing tasks in which they used their L1, Chinese, and their L2, English to plan the writings respectively. After the 10 minutes of planning, participants had to fill in a reflective questionnaire. They were then given 15 minutes to write followed by another reflective questionnaire. Four participants were selected for interviews. After the data collection, each piece of writing was evaluated by seven different measures of fluency, accuracy and complexity. Interviews were transcribed. The quantitative data were processed with SPSS for descriptive analysis, ANOVA tests, MANOVA tests, t-tests and correlation analyses.

English, as a medium of planning, is found to be better than Chinese as participants produced more fluent and accurate language in some measures when they planned in English. The same results were found even when High Proficiency Group and Low Proficiency Group

were examined separately. Complexity was not affected by the medium of planning regardless of the proficiency levels of learners. High Proficiency Group always performed better than Low Proficiency Group except when two groups were asked to plan in Chinese that the latter produced more fluent language than the former group.

Based on the results, the present study then interpreted and explained the major findings by referring to previous studies and written language production model proposed by Chenoweth and Hayes (2001).

The dissertation concluded that medium of planning has effect on fluency and accuracy of EFL learners of different levels. Pedagogical implications were suggested for EFL teachers and recommendations were provided for further research.

摘要

本論文研究了用不同語言計劃一篇文章對於不同程度的中國學生的文章的影響。語文表現可分為三方面：流暢度、準確度及複雜性。本論文旨在探討用哪一種語言計劃文章可以增強以上三方面的表現。

爲了尋找答案，二十個香港中文大學的學生自願地參加了一個實驗。根據他們的語文水平，他們被分為兩組—高水平及低水平。每一個學生寫兩篇文章，一篇用中文計劃，另外一篇用英文。經過十分鐘的計劃時間，他們要填寫一分問卷，然後他們會有十五分鐘的時間寫作。其中四個學生被挑選出來進行訪問。每一篇文章都會用七種不同的方法來評估，訪問的內容被譯成文字，其他的資料由電腦軟件 SPSS 分析。

研究證明了英文是一個比較好的語言來計劃文章，不論是高水平或者是低水平的學生，用英文計劃的文章都比較流暢，但是語言對於複雜性則沒有影響。當低水平的學生跟高水平的學生都是用中文來計劃的時候，他們比高水平的學生更流暢。

本論文證明了用不同的語言來計劃文章確是會影響學生的文章質素，所以在結尾的部分提供了一些建議供老師及日後研究之用。

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

“Writing is more than an orthographic symbolization of speech; it is, most importantly, a purposeful selection and organization of experience”

“The purpose of learning to write is largely a process of learning to think more clearly”

(Arapoff,1967, p,33-34)

The two quotes above do not only show the nature of writing, but also the importance of writing. According to Arapoff (1967), writing is an “active process” which involves thinking and organization of thoughts and language (p.33). What we see ultimately in a piece of writing has been planned and organized continuously even without the awareness of the writers. Planning, no matter if that is pretask planning or online planning, is an important stage in language production as it can affect the quality and quantity of language performance. This discovery inspired many researchers to conduct research on planning. There are many factors which can affect planning and ultimately language performance as found by different researchers.

Linguistic planning, both pre-task planning and online planning, has been found to technically and qualitatively improve output, especially for second language learners. Planning, in the present study is defined as any activities which lead to the development of

the linguistic production in general. So, activities such as thinking of ideas, finding the lexicons and organizing the ideas are all within the scope of linguistic planning. The present study, however, focuses on pre-task planning which is defined as any planning activities which take place before the actual writing task. Tavoloki & Skehan (2005) reported that allowing learners time to plan before speaking lead to “significant improvement in performance (p.6). Such planning is known as pretask planning and its employment affects many aspects of linguistic production.

Linguistic performance can be defined by three constituent aspects: fluency, accuracy and complexity. Research has found that pretask planning affects all of these aspects, though a consensus has been only partially reached for some. Fluency, described by Skehan & Foster (2001) has been found to increase with the greater implementation of pretask planning. On the other hand, complexity does not have such a clear finding. In the same Skehan & Foster study (2001), complexity was found to be improved by pretask planning. Wigglesworth (2001) does not agree with the result that pretask planning improve complexity. The third aspect, accuracy, has the most mixed results of the three. Research into accuracy has produced studies that generally are unclear or less consistent in the conclusions. This said that many studies have found that pretask planning has a significant effect on accuracy (Foster & Skehan, 1996, 1999; Mehnert, 1998; Skehan & Foster, 1997, 1999), while others have found no significance (Crookes, 1989; Ortega, 1999; Wigglesworth, 2001). Some studies that reported significance (Ellis, 1987; Yuan and Ellis,

2003) but they only used narrative tasks in the experimental design. When different tasks were employed (such as decision making or personal information exchange), the results tended to be more consistently significant (Foster & Skehan, 1996; Skehan & Foster, 1997). When looking at the research as a whole, it is noted that there simply is not enough research on which planning conditions lead to greater accuracy. Also, even though it was suggested by Ellis and Yuan (2004), there has not been enough research conducted with respect to the effects of planning on writing. These research gaps must be acknowledged and filled. Details of the above issues will be further explored in the following chapters.

1.2 Statement of Problem

Many studies have been conducted on the topic of planning through the medium of an oral narrative (Ellis, 1987; Foster & Skehan, 1996; Ortega, 1999; Robinson, 1995; Skehan & Foster, 1997, 1999; Wendel, 1997; Yuan & Ellis, 2003). The results of these studies can be summarized as thus: by utilizing a pretask planning strategy, linguistic output becomes more fluent (Yuan & Ellis, 2003) and more complex (Yuan & Ellis, 2003). By adopting both online and pretask planning, higher complexity of speech is achieved. This method has produced mixed results with respect to accuracy. While this research is certainly valuable, it has focused specifically on speech, neglecting the written production of language. Some more research is needed to examine the effects of planning on written performance.

It seems that one of the greatest advantages for a bilingual writer is that he or she can choose to use either one of the languages or even both to write. However, whether being bilingual is an obstacle or useful tool for L2 learners is quite controversial. Do people who use both their first language and second language during the writing process perform better or not? If using L1 does hinder the writing process, do we need a new approach to teach students how to write? These questions and others triggered researchers to examine the role of languages during planning process as well as the writing process.

1.3 Purpose and Method of Study

The aim of the study is to find out if the medium of planning has any influence on the written performance of L2 learners so to determine if using L1 or L2 to plan a piece of writing will have positive or negative influence on the performance.

The independent variable in the proposed study is the medium of planning. This term refers to the language that writers use during the process of planning. Two languages, first language (L1) and second language (L2) will be examined. Another independent variable is the proficiency of the writers. Proficiency is chosen to be an independent variable because there is a possibility that the difference in language proficiency among the participants may affect the results of the study. When this factor is considered, it can eliminate the possibility that it is the proficiency which determines how the medium of planning affects the written performance. The dependent variable is the written

performance which will be measured by three aspects: fluency, accuracy and complexity. A writer is considered fluent when more words can be accessed in a limited time (Lennon, 1990). Accuracy is achieved when it is free of errors. Complexity refers to “progressively more elaborate language” and “greater variety of syntactic patterning” (Foster and Skehan, 1996, p.303). The lexical complexity is also concerned which is defined as “possession of a reasonably large lexicon” (Hyltenstam, 1988, p.71). All these are the features of the written performance in the present study.

Four research questions were asked which are listed in the following.

1. Do L2 learners produce more accurate, fluent and complex language when they use Chinese (L1) as the medium of planning?
2. Do L2 learners produce more accurate, fluent and complex language when they use English (L2) as the medium of planning?
3. Will the effects on each aspect vary for L2 learners with different proficiency (High Proficiency learners and Low Proficiency learners)?
4. Under the same planning condition, either using English to plan or using Chinese to plan, which proficiency group performs better in the three aspects of performance (fluency, accuracy and complexity)?

In order to answer these questions, a selective subject pool of bilingual university students was collected and divided by linguistic proficiency. Two writing tasks were administered (Chinese planning Task and English-planning Tasks) to determine the role of

planning with respect to linguistic selection as well as a set of questionnaires. In the Chinese-planning Task, the participants were required to plan the writing in Chinese, their L1 while in the English-planning Task, they were required to plan in English, their L2. Random interviews were conducted with voluntary subjects to incorporate qualitative data with the quantitative tests listed above. The results of these data were analyzed for significance and evaluated in light of past research.

1.4 Significance of the Study

This research is worth studying because the results can help teachers determine how to teach writing to help improve the fluency, accuracy and complexity of the students' writings. Hong Kong students' writings are full of all kind of errors. It is possible that it is the medium of planning which affects the written performance of students. The findings of this study may help to clarify if learners require improved planning strategies to polish their written English. If using Chinese as a planning language has the potential to facilitate or hinder the writing process and its performance, there will be strong pedagogical implications for writing teachers. For example, they may need to teach students how to plan for the acquisition of written production in an EFL or ESL context. Some further research can also be conducted which takes the medium of planning into consideration to find out a better way of teaching writing, especially the pre-task planning stage if it is proved to be important in affecting the written performance of students.

1.5 Organization of the Dissertation

This experimental study has been organized into six chapters. The first, and current, chapter includes an introduction to the topic of planning and all of its aspects, some general background information and an outline of the modus operandi for the present study. The second chapter reviews previous research within the field of planning research and attempts to make the case for the following experimental outline clearer by building a foundation on which to work. The methodology for this study follows and its results comprise chapter four. The fifth chapter reviews the findings of the study while discussion noteworthy results. The final chapter, the conclusion, incorporates the results into the broader network of planning literature, makes mention of the findings' implications, acknowledges known and possible pitfalls encountered and offers suggestions for future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The concept of linguistic planning first appeared in psychology as early as in the 1960's. This concept was at the time widely used in first language production. Foss and Hakes (1978) defined planning as "finding appropriate lexical items to use and arranging them in a suitable semantic and syntactic framework" (p.178). This definition mainly focuses on speech production which is also the focus of plenty of the early studies that examined planning.

Ochs (1979) made a clear distinction between planned and unplanned language. Unplanned language is discourse "that lacks forethought and organization preparation" and planned discourse is discourse "that has been thought out and organized prior to its expression" (p.55). Researchers who have conducted research on planning in a first language (L1) context (e.g. Tannen, 1982; Danielewicz, 1984) have come to the same conclusion that the planning is favourable to L1 language production.

In this chapter, the literature of the previous studies is reviewed which includes previous research on planning and oral performance, role of planning in writing, different types of planning, the importance of planning and the relationship between planning and written performance.

2.2 Previous Research on Planning and Oral Performance

The examination of planning first appeared in the studies of second language development in the 1980's. It became a new focus of research because a convincing explanation for the causes of interlanguage development was lacking. Planning, as one of the possible variables, was examined. Two of the early studies in this area were conducted by Ellis (1987) and Crookes (1989). Ellis (1987) examined planning in both written and spoken narratives. Style-shifting in the use of three past-tense morphemes (which includes the regular past, irregular past and past copula) was examined. The results showed that planning influences accuracy primarily in the use of regular past in planned writing. There was little style-shifting in regular past and the past copula took place only between planned speech and unplanned speech. Crookes (1989) examined the relationship between planning and spoken performance in two aspects: complexity and accuracy. He found that when learners have time to plan, they can produce spoken language in a more complex way than in the short run. The effects of planning on the accuracy of spoken language were not significant. These two classic studies stimulated a whole literature on planning.

2.2.1 Conceptual Framework of Planning Studies

All planning studies have a common basic conceptual framework. The first pertinent assumption is the limited capacity of the human brain. Even though it is impossible to tell how much capacity one's brain possesses, it is commonly believed that there is a limit.

Foster and Skehan (1996) stated that “attentional resources are limited” (p.300). Yuan and Ellis (2003) used the phrase “limited processing capacity” (p.1), while Ortega (1999) refers to the same state as “limited linguistic and attentional resources” (p. 110). Despite the differences in phrasing, the ideas of limitation are similar. Humans simply do not have enough capacity or the resources in their brains. Different tasks require certain amounts of resources to be carried out successfully. Competition is unavoidable. Typically, the competition for linguistic resources is between processing of meaning and form. Over-allocation to either one of these processes will not be ideal for performance. Generally, meaning receives priority, leaving form at a loss. The research on planning endeavored to examine whether planning is capable of freeing up some space in the brain for other uses, such as increased focus on form.

2.2.2 Aspects of Linguistic Performance

Three aspects of performance (complexity, fluency and accuracy) were examined in previous studies. Complexity is perceived as typifying more grammatically and lexically complicated sentences. Foster and Skehan (1996) perceived complexity as “more elaborate language that may be used, as well as a greater variety of syntactic patterning” (p.303). Yuan and Ellis adopted the viewpoint of Skehan and cited his definition of complexity as “the elaboration or ambition of the language that is produced” (Skehan, 1996, p.22, cited in Yuan and Ellis). Ortega (1999) defined the concept as a “more varied and developed IL

form” (p.111). Lennon (1990) saw complexity as “using a wide-range of structures and vocabulary” (p.390). In the present study, both grammatical complexity and lexical complexity are examined. Grammatical complexity refers to “a wide variety of both basic and sophisticated structures are available” and “can be accessed quickly” (Wolfe-Quintero, Shunji Inagaki & Kim, 1989, p.69). Lexical complexity concerns the possession of large lexicon. The concepts of elaboration and variety are instrumental to complexity.

As with the others, Yuan and Ellis also embraced Skehan’s definition of fluency. Fluency can “reflect the primacy of meaning and the capacity to cope with real-time communication” and “also reflects the effectiveness of the planning process and the way propositions can be orchestrated into effective, ongoing discourse” (Foster and Skehan, 1996, p.304). That such a view only addresses oral performance and communication is of paramount concern. More than one party is necessary for communication. In order to be able to determine one’s fluency, it is necessary to assess the way he or she communicates. In writing, fluency is viewed a bit differently. It simply means “more words and more structures can be accessed in a limited time” (Wolfe-Quintero, Shunji Inagaki & Kim, 1998, p.14).

As for accuracy, errors are indicators of lack of accuracy. When learners produce language full of errors, it is regarded as inaccurate. Foster and Skehan (1996) viewed accuracy as language production that is free of errors. It also concerns the way learners control the inter-language level. Sometimes language learners may use more simple

sentence to maintain accuracy. Therefore, it is necessary to see if accuracy can be sustained when language becomes more complex. Yuan and Ellis (2003) view accuracy as concern of “the extent to which the language produced conforms to target language norms” (p.2). A comparison between the target language and the inter-language are useful in assessing the accuracy of the produced language.

Previous studies have shed some light on the effects of planning on these three aspects. More than a handful of studies suggest the finding that planning is responsible for the enhancement of complexity. Foster and Skehan (1996) discussed this point based on the research conducted by Crookes. They believed that “pretask planning time leads to greater complexity” (p.302). Yuan and Ellis (2003) also made a similar comment that there exists a “positive effect for planning time on the complexity of learners’ productions” (p.2). Ortega (1999), based on the generalization of the previous studies, concluded that “planned output is both more fluent and complex than the unplanned output” (p.118). The relationship between planning and complexity, in view of this, can be regarded as positive.

Some previous studies have examined fluency and concluded that planning also leads to increased fluency. Such studies include Crookes (1989), Foster and Skehan (1996) and Wendel (1997). Some of the research takes the factor of planning time into their consideration of accuracy. It has been found that “fluency improved with each increase in planning time” (Yuan & Ellis, 2003, p.2). There is no conflicting view with respect to this finding.

The views on accuracy are relatively varied when compared to the two discussed above. In Foster and Skehan's study (1996), a study by Crookes is mentioned whose findings show that there are "no significant increases in accuracy" with planning (p.302). Yuan and Ellis(2003) summarized the previous studies as mixed results. For instance, Ellis (1987) reported a positive effect on the accuracy of regular, rule-governed past tense forms. Crookes (1989) determined that there is no effect of planning on accuracy in relation to the use of articles. Wendel (1997) concluded that no significant difference could be delineated between the planning groups and the no-planning group. Skehan and Foster (1997) suggested that different task types are the main factors in determining whether planning has an effect on accuracy. Ellis's study in 1987 suggested that the "crucial factor influencing accuracy was the opportunity to plan on-line and not pre-task planning" (Yuan & Ellis, 2003, p.4). Even Ortega (1999) supported the view that accuracy is "conflicting and inconclusive" and "accuracy was significantly higher in the planned condition on some measures and for some tasks" (p.118). It seems that all the research groups point to the same conclusion that planning may or may not have an effect on accuracy.

2.3 The Role of Planning in Writing

Though both writing and speaking are language production, there is an assortment of qualities which distinguish them. Therefore, it is important to understand what planning is corresponding to writing. Hayes and Gradwohl Nash (1996) have defined planning as a

kind of reflection connected with decision-making and inferencing. During planning, numerous decisions are made such as what to write and how to write. Sometimes planning has been confused with drafting. Ferris and Hedgcock (2005) have made a distinction between these two terms. Planning and drafting are two different processes and do not need to come in a particular order as “planning does not necessarily precede drafting, nor does drafting begin only after a definitive “plan” for a piece of writing has been formalize” (Ferris & Hedgcock, 2005, p.155). Drafting refers to the process of re-writing. For drafting to take place, writers must start writing. Planning, however, does not necessarily involve writing. Generating ideas mentally, for instance, can be regarded as planning. There are different types of planning which will be discussed later in this paper. Prior to that, it is necessary to understand the role of planning throughout the entire writing processes.

2.3.1 Writing Models

Writing is a complex process which involves distinct stages. The following diagram (Figure 2.1) is a classic one by Kellog (1996) that explains the process of writing.

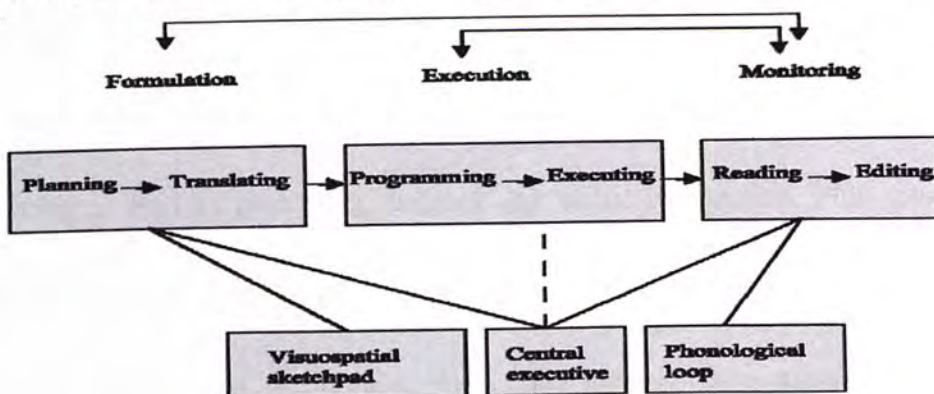


Figure 2.1. Kellogg’s model of writing processes. Adapted from: Kellogg, R (1996)

According to this model, there are three basic processes in writing: formulation, execution and monitoring. Formulation entails planning which involves setting the goals of writing, brainstorming ideas to achieve the goals and organizing them. After choosing the lexicons and syntactic structures, writers represent them phonologically and graphologically for execution. Here, planning plays an important role because without planning, a writer cannot actually start writing. The next process is execution. Execution requires programming. The output from translation will be transformed into production schema such as handwriting or typing. A sentence can resultantly be produced. During the process of monitoring, writers may read the text and edit. However, these two processes are not necessary for all writers. Under the boxes of the three basic writing processes, there exist an additional three boxes which represent the mental components necessary during the process of writing. The central executive processes are responsible for problem solving, mental calculation, reasoning and they are involved in all the subprocesses but are not executing due to the fact that this can be done without controlled processing. The visuospatial sketchpad processing stores and processes visual and spatial information in working memory and it is involved in planning only. The phonological loop is responsible for storing as well as processing auditory and verbal information. This component is required for translating and reading. Because there is a limited capacity in central executive processing, writers need to prioritize the writing process. Formulation which involves planning usually takes priority over the other two processes (Kellogg, 1996).

2.3.2 The Role of L2 in Writing Models

Kellog's model mainly purports to explain the writing process of L1 learners, leaving much to be clarified in the explanation of the writing process of L2 learners. Multiple studies have shown that L1 writing processes differ from those of L2 learners. For instance, L2 learners may face more strain on working memory due to limited proficiency. Roca de Larios, Marin and Murphy (2001) explain this phenomenon and state that lower proficiency learners concentrate on translation during the time of on-line planning and revising. This type of learner pays more attention to form, resulting in a quantitative difference. There is also a qualitative difference due to the use of L1. Woodhall (2002) revealed that the extent to which a learner relies on L1 is dependent on L2 proficiency. The more difficult the task is, the more switches back to L1 can be traced. Based on the differences stated above, a new model is necessary to demonstrate the basic writing processes of L2 learners.

The model by Wang and Wen (2002) is an improvement which takes the use of L1 in the writing processes into consideration. The following diagram contains the three important components: task environment, composing processor and writer's long-term memory. The sub-components enclosed in the ovals are L1-dominant while those in rectangles are L2-dominant.

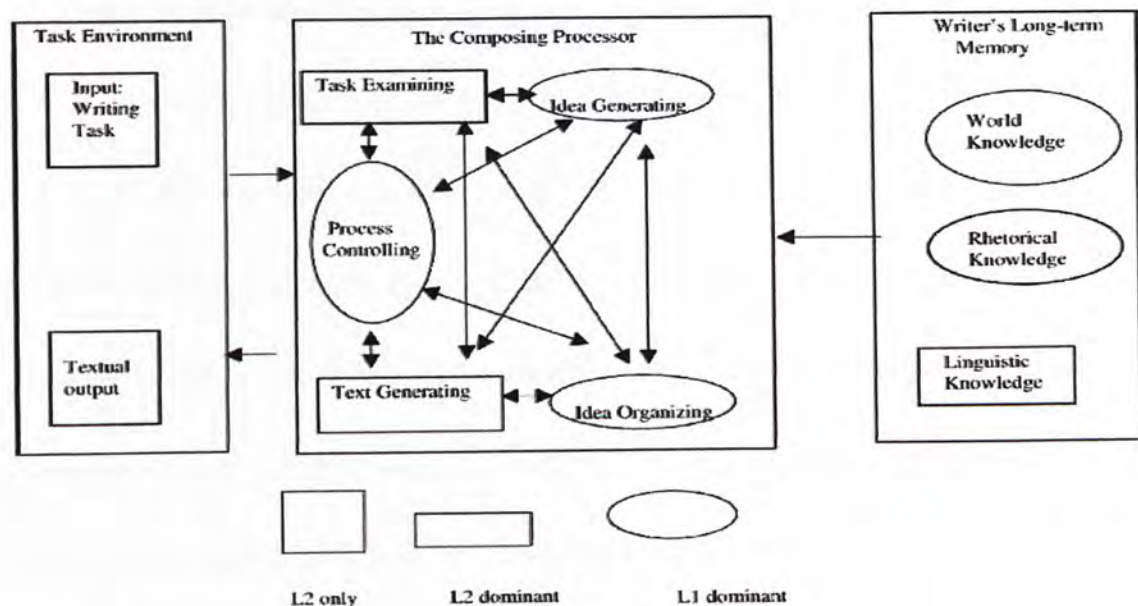


Figure 2.2. A descriptive model of L2 writing process. Wang & Wen (2002)

The two sub-components of task environment, input and output, are listed as L2-only because, by definition, the task requires writers to write in L2 and the writing task is certainly in L2. The five categories of composing activities in the composing processor, including task-examining, idea-generating, idea-organizing, text-generating and process-controlling, have no rigid sequential order because of the “recursive nature” of writing. (Wang & Wen, 2002, p.243). Task-examining activities involve more L2 than L1 while idea-generating and idea-organizing are more L1 dominant. Processing for sentence construction is usually L2-dominant. Once the content schemas and language systems are activated, world knowledge, rhetorical knowledge and linguistic knowledge can be provided. World knowledge and rhetorical knowledge are L1 dominant whereas linguistic knowledge is L2-dominant.

In order to understand the writing processes of L2 learners, it is necessary to look at the two models, one by Kellogg(1996) and one by Wang & Wen (2002) above. Many researchers have concluded that the processes in L1 and L2 writing are similar (e.g. Bereiter & Scardamalia, 1987; Flower & Hayes, 1980; Grabe; Grabe & Kaplan, 1996; Kellog, 1996; Zimmerman, 2000). Kellog's model is then useful in demonstrating the basic writing processes of all learners. The one modified by Wang and Wen, on the other hand, incorporates the feature specific to the L2 writing process, the use of both L1 and L2 in different stages. Combining the two models together enables the readers to see a clearer picture of the L2 writing process.

2.3.3 The role of L1 in L2 writing

A view has been expressed that learners transfer their writing abilities and strategies from L1 to L2 writing, especially planning and revision strategies (e.g. Jones and Tetroe, 1987). For instance, those who plan in L1 also do the same in L2 writing and, for L2 writing tasks, those who planned in L1 were able to do so in more detail than those who planned in L2. Lack of writing strategies in L1 will, therefore, hinder the development of L2 writing. For instance, Arapoff (1967) claimed that a topic related to firsthand experience will lead to the transfer of L1 incorrectly. Because of the limited capacity of the human brain, using L1 to retrieve information inevitably involves translation and this will lead to overload of short-term memory, possibly affecting the quality of writing. In view of

this limitation, using L1 is a hindrance to L2 writing.

Another view on the effect of L1 (e.g. Edelsky's, 1982) has been that some learners who can overcome the constraints in L1 writing can also overcome the difficulties in L2 writing. The first-language strategies of this kind of learner can aid second-language writing. Friedlander (1990) has conducted research aimed at the elucidation of the function of a first language while ESL writers are writing English, L2, texts. After the test, he found out that there were more detailed texts and longer plans and essays in the language-matched condition (plan and write in the particular language that matched the topic. This supports Lays' finding (1982) that using L1 aids in information retrieval.

Uzawa and Cumming (1989) found that, generally, second language writers used L1 (English) extensively for generating ideas, searching for topics, developing concepts and organizing information (p.5) Asking students to think via a foreign language may result in weaker writing. Qi (1998) determined that subjects switched to L1 when capturing the beginning of an idea, developing a thought, verifying lexical meanings and when working memory was overloaded. Tasks requiring a high level of knowledge are associated with language switches. Lay (1982) concluded that L2 learners switched to L1 and relied on L1 writing strategies to complete writing tasks. Subjects in the study also translated key vocabulary in order to generate ideas, especially on an unfamiliar topic or a topic related to their native cultures. Cumming (1990) found that learners used L1 to seek out and assess appropriate wording, compare cross-linguistic equivalents and reason about linguistic

choices. To summarize, the frequency of L1 switching is related to writing expertise in L1, but not L2 proficiency.

Translation involving L1 has a role to play in L2 writing. Kobayashi & Rinnert (1992) observed that compositions in translation mode have higher levels of syntactic complexity, better areas of content, style and organization and more clearly stated theses. Low-proficiency students benefited from translation mode, though not those from the higher-proficiency group. However, 77% of the subjects tested preferred direct composition and several of them explained it was because “they wanted to think in English” (p.10). Translating makes it easier for writers to develop ideas, thoughts and opinions can be expressed more clearly and words can be found more easily, aiding in vocabulary acquisition. 55% of the higher-proficiency students and 87% of the lower-proficiency group used L1 half the time or more even for the direct-writing method. To low-proficiency students, therefore, “a translation strategy in writing might be beneficial, and that as their proficiency improves, they would switch more to direct foreign language writing” (p.10). Brooks (1996) also studied the translation mode with his participants achieving higher overall scores while in it. Cohen’s (2000) study suggested that L2 writers may think in L1 and engage in mental translation instead of real translation on paper. It is also beneficial to some learners to write out an “L1/dominate language version and then translate it into the TL (target language)” because the L1, or dominant language, is best used to plan and organize the writing, while the target language is best for

writing on the sentential level (p.58). Thinking in L1 can be beneficial to some students in some L2 writing tasks. The translation method has differential effects depending on the nature of task (e.g. in-class easy assignment (with or without time pressure), in-class exam, or essay as homework), the topic and the learning style preferences of the writers. Ali (1996) noted some other advantages of translation which include cohesion, enhanced syntactic complexity and improved breadth of expression. However, grammar, especially syntax, may suffer under the translation method. Those whose L1 are more similar to the target language would have an easier time writing in L2.

Uzawa (1996) looked at writing with respect to translating processes, attentional patterns, and quality of language use. It is found that most students used a “what-next” approach in L1 and L2 writing tasks and a “sentence-by-sentence” approach in a translation task. There are similar attentional patterns in L1 and L2 writing tasks, but different patterns exist in a translation task, as there is higher attention to language use. There are also higher scores on language use in a translation task. Lower proficiency students benefited from a translation task due to frequent attention to language use during the translation process. This attention assists the writer in sustaining accuracy. Students are “forced to use words and expressions slightly beyond their levels when they translated – consistent with Swain’s (1985) “pushed” output hypothesis” (Cohen, 2000, p.7). The translation approach boosts presentational and organizational levels.

2.4 Different Types of Planning

Planning has been addressed in articles by various researchers. Some of the terms which appear to be different are quite similar in nature.

Hayes and Gradwohl Nash (1996) have identified planning in two separate ways: process planning and text planning. Process planning focuses on the writer and how the task can be performed. Text planning, on the other hand, focuses on content and form. Though Hayes and Gradwohl Nash have not used the terms on-line planning and pre-task planning, their views on planning are quite similar to those of Yuan and Ellis. On-line planning, as suggested by Ellis and Yuan (2004), is similar to Hayes and Gradwohl Nash's, claiming that planning and text production are inter-mixed. Hayes and Gradwohl Nash (1996) define construction tasks as "tasks that produce their own output gradually with considerable interleaving of plans and action, and output influences the subsequent planning" (p.41). Here, planning inside or outside the task distinguishes on-line and pretask planning. Planning outside the task is regarded as pre-task planning, while planning inside a task is on-line planning.

Whalen and Menard (1995) have subdivided planning into three different aspects. Pragmatic planning involves defining pragmatic objectives (such as the audience and the reasons to write). In textual planning, writers aim to select the appropriate text and to produce coherence between ideas. Linguistic planning involves solving linguistic problems for the construction of the written text.

2.5 The Importance of Planning

Another important issue about planning is: Why should learners plan? To answer this question, it is necessary to understand the basic information processing theory. Because our brain is limited in processing capacity, learners cannot focus on all aspects of language production (Anderson, 1995, Newell & Simon, 1972). It is hard for learners, especially learners of low proficiency, to focus on meaning and form at the same time. As Ellis and Yuan (2004) suggested, with “competing demands”, learners who focus on one aspect will be distracted from another aspect (p.61). Given the opportunity to plan, the learner can compensate for their limited capacity, leading to enhanced quality (Yuan & Ellis, 2003; Skehan 1996).

Ortega (1999) stated that “the provision of time for learners to plan before performing an L2 task” can “induce learners to focus on whichever formal and systemic aspects of the language are needed to accomplish a particular task” (p.110). Planning, in Ortega’s view, can “lessen the cognitive load of a given task and free up attentional resources” (p.110). Planning is useful in a sense that it frees up some space for learners to focus on more aspects of writing. From a practical perspective, Ferris and Hedgcock (2005) have also addressed this issue. According to them, planning can promote “the fluid production of meaningful text” (p.157). Sharples (1999) also mentioned the advantages of planning and prewriting. Planning helps writers organize thoughts and it “guides the production of a text”, as well as providing “an opportunity to reflect on the content and structure of the text,

and this appears to pay dividends in improved quality” (p.88-89).

Some early planning studies hypothesized that planning may enhance accuracy because “it may allow the upper limits of competence to be accessed and made available for performance” and more attentional resources can be made available for monitoring during planned performance (Ortega, 1999, p.11). Planned output can also be lexically and syntactical complex since the “declarative knowledge of rules and lexis” are accessible for use with planning (Ortega, 1999, p.112). According to Ortega (1999), fluency can be enhanced, too, because “the on-line demands of coplanning and micropanning are alleviated” (p.112). It can be concluded that planning has its value in writing.

2.6 The Relationship between Planning and Written Performance

Much of the previous research on planning has addressed the issue of the relationship between planning and written performance. Each study focuses on one particular variable which may affect planning and ultimately the written performance. These variables will be presented in the following section.

Topic has important influence on planning as well as the ultimate quality of the essay. Lay (1982) found out that for a topic acquired in L1, learners occasionally switched back to L1. The more switches, the better the quality of their writing. In view of this finding, using Chinese (L1) can be useful in early stages of L2 development. For topics which are unfamiliar or related to L1 experience, it is more beneficial to use L1 to retrieve

information. Johnson (1985) and Jones and Tetroe (1987) agreed that a first language may facilitate retrieval of some topic information. Additional supportive evidence can be found in Cumming's study (1987) which stated that, regardless of the topic, learners who used French (L1) to generate ideas, and some advanced learners who even used L1 for word choice, produced higher quality writing.

Friedlander (1990) has conducted research demonstrating the influence of topic on planning and the overall quality of the essays. The performance on the Chinese-related topic was better supposedly because the subjects had "greater familiarity" (Friedlander, 1990, p.118). The plans on Qingming, the Chinese-related topic, were condensed mainly by use of chunks and short phrases which allow subjects to expand and explain details, leading to higher ratings of both the plans and essays. These findings show that "culturally based information" can be accessed more easily and explains why subjects could not think of many details for the English-related topic as they had little knowledge stored for this topic. Language use can only affect the quantity of details by perhaps constraining the retrieval of information of a certain topic area. Subjects found it easier to think in Chinese for Qingming, yet not for the English-related experience. However, some topic-area knowledge which had been acquired after the subjects became bilingual could be accessed in either language. As a result, there were a similar number of details for the English-related topic regardless of language.

This research implies that while choosing the topic, teachers need to consider the

cultural background of the students. Teachers should not compel students to plan in only one language as some topics can be better developed if students are allowed to plan in the language in which they acquired the knowledge.

2.6.1 Planning Types

Research on planning has often focused on pretask planning (e.g. Ellis, 1987; Foster & Skehan 1996, 1997; Ortega 1999). It is commonly agreed that pretask planning (PTP) leads to improvements in fluency and complexity, but mixed results were found with respect to accuracy. Past research mainly focused on pretask planning, leaving a research gap for the present study to examine on-line planning (OLP). A second research gap for this study to consider is the lack of conclusive inquiry into the written narrative. Considering these limitations, previous researchers have drawn on findings from this earlier research; Hayes and Gradwohl Nash (1996), for example, found that pretask planning can improve quality and enhances fluency of writings.

2.6.2 Research on Pre-task Planning

Pretask planning has been found to aid fluency in two ways. First, it facilitates process and text planning for content and organization, placing less strain on working memory during on-line processing by organizing information with clarity. Pretask planning also increases the confidence of the writer because it reduces the need to engage in extensive monitoring. Zimmerman (2000) found that writers revised more in L2 writing than L1

writing. Pretask planning can reduce the number of revisions which has the effect of making L2 more closely resemble L1. More proficient learners are able to write more fluently through its implementation. Pretask planning can compensate for lack of L2 proficiency. It has also been found to enhance syntactic variety as participants in this experimental group utilized a greater variety of verb forms, though it does not improve lexical variety. It is because the participants in this group focused on “propositional content” by identifying the main events that they expanded their use of verb forms. In order to do this, they were required to search for verb forms to encode temporal meanings. Verb forms are stored and can be accessed easily when demanded. Finally, pretask planning has no significant effect on accuracy.

2.6.3 Research on Online Planning

In the study by Ellis and Yuan (2004), it is found that online planning does not promote fluency but does reduce dysfluencies, mainly because participants under this method can monitor their internally processed output prior to execution. In contrast, other groups can only monitor if time permits, although they could edit the actual textual output. On-line planning also has some effects on complexity. The participants in this group display superior syntactic complexity ($M = 1.92$) and syntactic variety ($M=18.86$) to the participants in the No-planning group ($M=1.68$ and 16.21) (Ellis & Yuan, 2004). The participants’ performance in the No-planning group was not at the same standard probably

because they did not have enough time to reflect on propositional content. There was also a clear effect on accuracy as the on-line planners used the additional time to attend to accuracy by editing their internal and external output. Writing allows time for accessing “observable units of text” and, as such, there is more attention to form (Ellis & Yuan, 2004, p.80). Generally, pretask planning helps formulation while unpressured on-line planning aids monitoring.

It can be concluded that while planning can take various forms, teachers need to pay attention to which types of planning facilitate certain aspects of written performance.

2.6.4 Other research

Time is another important factor which may affect the quality of planning. Grabe’s (2001) study is one of a handful which concentrated on the effect of planning time. Students who planned less than 10 seconds produced less information and hence, writings with lower quality. Ellis (1994) has stated that there is a relationship between ‘planning time’ and the production process. Consequently, the amount of time available for planning the “different processing states” can affect its output (p.131). However, the availability of planning time does not necessarily enhance accuracy “as production involves learners in an intricate series of interlocking acts of planning, which compete for their attention” (Ellis, 1994, p.151). Teachers need to bear in mind that ample time should be provided for students to plan. Planning does carry significance for the writing process.

The location or the environment in which writing takes place is another important variable. Kroll (1990), for instance, studied the differences between take-home essays and essays finished in class. The former were more accurate and more highly rated than the latter. This finding is also related to time in the sense that teachers do not know how much time students spend on take-home essays. Provided that they spend much more time than students who finish the essay within the time limit of a lesson, it is understandable that the previous group performed better.

2.7 Summary

Based on the literature review, a few research gaps can be found. A lot of the previous studies focus on speaking rather than writing in relation to planning. Some more research on the written performance will be valuable. The proposed study is related to the existing research on planning, especially to those studies which examined the factors affecting planning and ultimately influencing performance. This research is a puzzle with pondering since the majority of earlier research on the relationship of planning and performance was conducted with concern to the planning time, task type and kind of planning, yet the languages used during planning were not examined in those classic studies. This study also incorporates one additional independent variable, medium of planning, to the dependent variable, written performance.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

To examine the effects of the medium of planning on the written performance of EFL learners, an experiment in which the participants had to complete two writing tasks with reflective questionnaires in between was conducted. This chapter describes the methodology behind the experiment.

In order to justify the validity and reliability of this study, the researcher will explain the selection of the subjects and the use of different methods for data collection and analysis in this chapter. There will be five parts which include (1) safeguards for the research design, (2) the participants, (3) sources of data, (4) procedures of data collection, and (5) data analysis.

3.2 Safeguards for the Research Design

As this is an experimental study, the data are highly related to the performance of the participants. To ensure that the data collected will be reliable, the researcher has carefully designed the study to minimize any kinds of interference so that the participants can perform as naturally as possible. Several factors were taken into account when the study was designed in order to achieve the goal stated above.

3.2.1 Classroom situation

The ideal situation for ESL or EFL students to write with minimal pressure is by take-home essay. Kroll's (1990) study suggested that the performance of take-home essays and essays finished in class vary. The take-home essays were more highly rated and accurate than the latter ones. These results are assumed to be related to time, in the sense that teachers do not know how much time students spend on take-home essays. Provided that they spent much more time than students who finished the essay within the time limit of a lesson, it is understandable that the former group would perform better. In order to make sure that the participants perform under the same time condition, this study was set in a classroom situation. In fact, Hong Kong students are accustomed to writing in a classroom setting. Besides the regular practice of writing in class, students are also required to take many exams in which they must produce essays under strict time constraints. As the students are all local students who have taken both the Hong Kong Certificate of Examination ¹ (HKCEE) and Hong Kong Advanced Level ² (HKAL), examinations which incorporate a written section judged for performance, it is assumed that their performance will not be affected by the classroom setting. To create a more naturalistic environment for the participants, they will undertake the experiment in a classroom setting. Therefore, their performance should be similar to their normal classroom performance.

3.2.2 Purposeful Sampling

The selection of the subjects is key to the study. Therefore, the subjects are not randomly selected because they have to fit some particular criteria to represent different categories of L2 writers. As the study hypothesized that language proficiency may affect the written performance of the participants, the two groups of participants were selected after filling in a questionnaire in which they were required to fill in gender, study field, language background, their grades of English in the two public examinations (Hong Kong Certificate of Examination and Hong Kong Advanced Level) and previous writing training. Except for the language proficiency, the backgrounds of the participants are quite similar so that the findings will not be affected by the variations of the participants. More background information will be provided in the following section, 3.3.

University students are required to pass the two public examinations in English. It is guaranteed that they have a certain level of English proficiency and they must have the ability to write in English and plan in both languages. Being bilingual is also a must to be selected as a participant in this study. Students from the Chinese University of Hong Kong fit this criterion as both Chinese and English are adopted as the medium of instruction at this university. The selected participants represent the two groups of L2 writers; one group with higher proficiency, the other with relatively lower proficiency. The proficiency here refers both to the general language proficiency and it is determined after gathering the information about their grades in the two public examinations. The details will be

explained in the latter part of this chapter.

3.2.3 Voluntary Participation and Guarantee of Anonymity

Voluntary participation and guarantee of anonymity is considerably important because, if the participants are not willing to join, the data they provide will not be reliable. Therefore, the researcher has sought consent from every single participant to make sure their participation is voluntary. The researcher first briefly explained to the participants the purpose of the study. Instead of revealing all the details of the study, (which may affect the performance of the participants, encouraging them to provide data which they believe the researcher is seeking), the researcher only provided a brief outline of the study. Before the study, though the participants had to disclose some of their personal information, they were told that all the information would be kept confidential and anonymous. The purpose of asking for their names was only for matching the questionnaires to the writing tasks. Once the matching was done, the names would be removed. Most importantly, they were told that the data collected would not be related to any of the class assignments and, therefore, it would not affect their grades in the course. The guarantee of confidentiality was clearly stated in the questionnaires.

3.3 The participants

The following table (Table 3.1) shows the information for the four groups of participants. Their names were removed and coded. The information includes their gender,

faculty and examination grades.

Name	Gender	Faculty	HKCEE Grade (English)	HKCEE Grade (Writing)	HKAL Grade (English)	HKAL Grade (Writing)
High Proficiency Group 1						
A1	M	Arts	A	A	B	B
A2	F	Arts	A	A	A	A
A3	F	Arts	A	B	A	B
A4	F	Arts	A	A	A	A
A5	F	Arts	A	A	A	B
High Proficiency Group 2						
B1	M	Arts	A	B	B	B
B2	F	Arts	A	A	A	A
B3	F	Arts	A	A	B	B
B4	F	Arts	A	A	B	B
B5	M	Arts	B	B	B	B
Low Proficiency Group 1						
C1	F	Science	C	D	C	D
C2	F	Business	C	C	C	C
C3	M	Education	D	C	C	C
C4	F	Business	C	C	D	C
C5	M	Engineering	D	B	D	C
Low Proficiency Group 2						
D1	F	Education	D	D	D	C
D2	M	Science	D	D	D	D
D3	M	Science	D	D	D	D
D4	M	Arts	D	D	C	C
D5	M	Business	C	C	C	C

Table 3.1 Information of the participants

There were totally 20 participants with five participants in each group. There were nine male students and eleven female students. Only two male students were categorized as High Proficiency because there were only a few male students in the English Department. The female to male ratio was about 9:1 in the English Department. All the students from High Proficiency Groups came from the English Department. As for the Low Proficiency Groups, there were three students from the Business Faculty, three from the Science Faculty, two from the Engineering Faculty and one each from the Education Faculty and

Arts Faculty.

As there are two groups of participants, the high proficiency group and the low proficiency group, one basic criterion concerns the language proficiency of the learners. First-year students were chosen because their background was relatively homogeneous. They had all completed the two public examinations, HKCEE and HKAL. They had only been enrolled at the Chinese University of Hong Kong for one year. Thus, their grades from the public examinations may have still reflected their English proficiency at the time of experimentation.

Proficiency level was taken into consideration to allow an inter-group comparison. Also, it was hypothesized that proficiency would be a factor affecting the performance of the participants. The subjects were willing to disclose their personal information, including their grades in English in both HKCEE and HKAL. Students whose grades were B or above in HKAL were considered highly proficient and those whose grades were C or below were regarded as having low proficiency. The grades for the HKCEE were also needed since one examination was not adequate to reflect the true proficiency of a student. With both grades, it was easier to make a comparison to see if getting a high or low grade is a matter of chance rather than reflecting real proficiency.

As students had to complete writing assignments in the two examinations, the grades of the papers were also taken into consideration. The following table (table 3.2) shows the mean of the total of the grades for the HKCEE and HKAL, as well as the grades of the

writing papers in both exams for each group.

Proficiency	Group		Total of CE+AL	Total of CE+AL (Writing)	Total of Both
High	High 1	Mean	4.90	4.60	4.72
		Std. Deviation	.268	.436	.277
	High 2	Mean	4.40	4.34	4.40
		Std. Deviation	.358	.409	.374
	Total	Mean	4.67	4.46	4.56
		Std. Deviation	.378	.412	.353
Low	Low 1	Mean	2.60	2.88	2.74
		Std. Deviation	.424	.522	.182
	Low 2	Mean	2.44	2.56	2.50
		Std. Deviation	.434	.357	.374
	Total	Mean	2.52	2.72	2.62
		Std. Deviation	.413	.454	.305

Table 3.2 The means of standard deviation of the examination of each group

The grades were transformed into points. A grade of A was transformed to 5 points and E corresponded to 1 point. The higher the points, the higher the grades are. The total of the two columns were counted by adding up the sums and dividing by 2. For the High Proficiency Groups, the mean of both groups are quite similar; the High Proficiency Group 1 (M=4.9) slightly outperformed Group 2 (M=4.4). Both performed well in the two public exams with the total grades and grades in the writing papers not lower than a grade of B.

As for the Low Proficiency Groups, Low Proficiency Group 1's scores exceeded those of Group 2. A mean of 2.6 for Low Proficiency Group 1 means the average grade they received in total was between C and D but closer to C. As for Low Proficiency Group 2, the mean is 2.44 which means it was ranked between C and D but closer to D. As for the total of both the HKCEE and HKAL, as well as the writing papers in both exams, the difference in means between High Proficiency Group 1 and High Proficiency Group 2 is only 0.32, while the difference between Low Proficiency Group 1 and 2 is 0.24. Group 1 at

each proficiency level had slightly higher means than those participants in Group 2 of each level. Thus, the grouping is quite satisfactory in view of the proficiency of the participants.

The first language of the subjects is Cantonese with English as their second language. This was a necessary criterion because the subjects needed to be able to plan both in Chinese and English and the study concerns the influence of the medium of planning on L2 written performance.

Besides the key factors stated above, the subjects also shared similar backgrounds. All of them have taken writing courses before. As the High Proficiency participants were from the English Department, they had all taken two specific courses, namely, “Communication Skills for English Majors” (CENG), in which they had learned some writing skills. As for the Low Proficiency Groups, most of them came from a class entitled “Reading and Writing”. In addition, some students had taken writing courses (such as “Technical Writing” and “Business Writing”) at CUHK. As for their planning habits, the following two graphs (Figure 3.1 and Figure 3.2) show that most subjects typically plan before they begin to write. The proportion of the number of participants who plan and who do not plan was the same in the High Proficiency Groups as in the Low Proficiency Groups. For those who plan, the majority plan in English. None would usually plan in Chinese. The other planned with both languages. This is the information gathered from the pre-task questionnaires (Appendix 1).

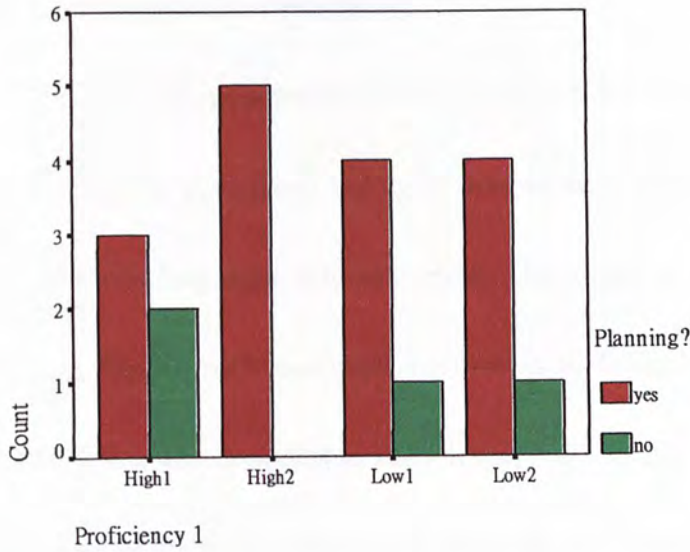


Figure 3.1 The planning habit of participants

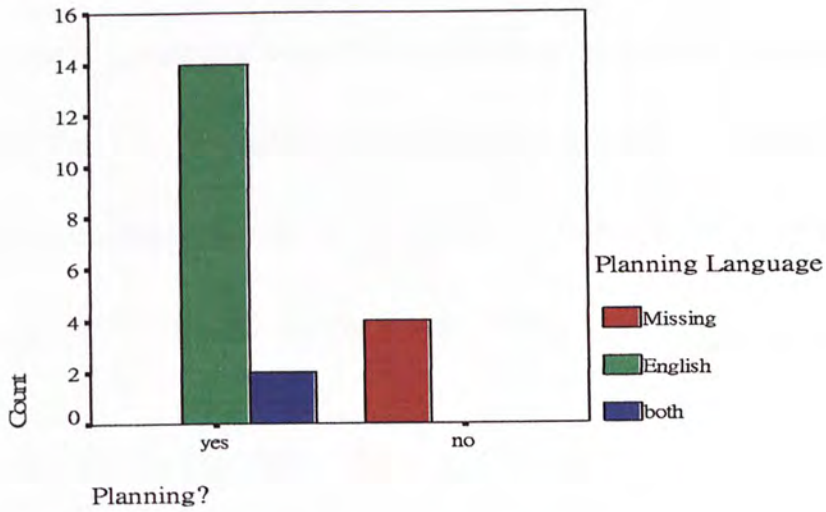


Figure 3.2 The planning language of participants

3.4 Sources of Data

There were numerous sources of data to be collected. In addition to the written products, there were also pre-task questionnaires, reflective questionnaires and semi-structured interviews for randomly selected participants. The multiple sources are supplementary to each other.

3.4.1 Pre-task Questionnaires

The pre-task questionnaires (see Appendix I) were important in selecting the participants. The participants had to fill in some basic information such as age, study field and additional languages that they speak. The grades in both English and the Writing Papers in English were necessary information to determine what proficiency level they were in. It was also important to know if they had attended any writing class previously to establish whether the participants had received similar training. Since this study's focus is planning, it was useful to know the planning habits of the participants.

As the participants were all university students and they were supposed to have a certain proficiency in English, the questionnaires were both designed and administrated in English. The questions were in multiple-choice format so as to economize participants' time and also for the sake of easier data processing.

3.4.2 Written Products

The written products were two pieces of writing by each participant. Two topics (see Appendix III) were given to them and they were directed to write two essays in the form of letters. The participants were asked to write the essays in English. The tasks were designed in a letter format addressed to the participants to make the task more contextualized and realistic. As planning was necessary, outlines or drafts were produced before the actual writings. The outlines, the drafts and the writings were collected.

3.4.3 Reflective questionnaires

For each task, there were two reflective questionnaires (see Appendix III); one was administered immediately after the planning process and the other right after the actual writing. The questionnaires were designed to recall what the participants had just done during each stage. Questions such as how much time they had allocated on brainstorming, generating ideas, writing down ideas and the actual writing were asked. As the participants had recently finished the task at the time, their memories should have still been fresh enough to reflect on what they had done. The questionnaires help to investigate the details of both the planning process and the writing process. There were different kinds of questions. The first portion was designed to allow them to reflect on their time distribution of both the planning and the writing processes. The second part inquired about their attitudes towards planning in different languages. In this part, the participants had to rate their attitudes from 1 to 6; 1 representing “strongly disagree” and 6 “strongly agree”. The last part was open questions in which they could write any answers they desired.

3.4.4 Semi-structured Interviews

The semi-structured interviews (see appendix IV) were aimed to explore more about the qualitative part of the planning process. Not every participant had to be interviewed. As the participants were randomly selected, the first participant of each group was selected for the interview. The questions were set beforehand as the base of the interviews. Follow-up

questions or anything interesting mentioned on the spot were also added.

3.5 Procedures of Data Collection

The data collection was carried out in the spring of 2006 and lasted one month. The procedure is described below.

3.5.1 Selecting the Subjects

With the help of two tutors from the Chinese University of Hong Kong, the researcher gained access to first-year students in the university. One of the tutors is from the English Language Unit (ELT) in which he teaches Writing Class and Grammar Class. In those classes, students are usually of lower English proficiency and attend these classes organized by ELT to improve their English. The other tutor is from the English Department where she teaches a Literature course. There, most of the students are from the English Department. As English is their major subject, it is not difficult to select relatively higher proficiency students.

As both the grades for the English Language in HKCEE and the Use of English in HKAL will be considered, and both the overall grade and the grade for the writing paper in each exam will be taken into consideration, the researcher had created a mechanism to select the participants. First of all, the overall grades of each exam were weighed differently. As the HKAL was taken less than one year ago, the grade should better reflect the current proficiency of the participants. The HKAL was weighted at 60 percent while

the grade from the HKCEE was weighted at 40 percent. This method serves as a better reflection of ability because some students may have performed poorly on one exam, yet consistent poor performance could not be considered as an accident. An average grade of B or above was regarded as belonging to the high proficiency group while those participants with a C or lower were grouped as having low proficiency. As for the grades in the writing paper, it was just used as an index to show how advanced their writing skill was. An overall rating along with the combination of the grades for both examinations and both writing papers were taken into consideration.

3.5.2 Gathering the Basic Information of the Participants

Pre-task questionnaires (see Appendix I) were distributed by their tutors to the students in each class. The tutor first explained the purpose of the questionnaire and students were told that all the information would be treated confidentially and would not affect the grades of the course. To ensure that students were voluntarily joining the study, an informed consent form (see Appendix II) was also distributed to each student. The students had the right to withdraw from the study at any time. Fortunately, no students withdrew from the study.

After gathering all the information, the researcher selected five participants for each group and arranged times to conduct the study.

3.5.3 Conducting Pilot Studies

The pilot study was conducted with two student participants who were not included in any groups. The purpose of the pilot study was to confirm that everything would be carried out smoothly in the real data collection process and to see if there was anything regarding the tasks or questionnaires which needed improvement.

The two students were asked to complete two short essays and the reflective questionnaires. After they accomplished the task, the researcher interviewed them to see if the difficulty of the task, the time limit of the task and the questions on the questionnaires were appropriate. Suggestions were considered and further improvements were made afterwards.

The two participants made some comments on the format of the booklet. Originally, it was designed as separated sheets. They suggested that it would look nicer and more professional to bind them into a booklet. In fact, the booklet format was more favourable since the participants would be able to turn to the next page once they had finished a particular task or questionnaire more easily. Also, more space was provided because some participants' handwriting required it.

Some modifications were made to the arrangement of the study. The two tasks were originally designed to be performed back-to-back. The participants reported that it would be better to be permitted a break in between so that they could take a rest and clear their mind from the previous task. In this way, they would not be affected by the previous task.

A timer that could be viewed by the participants was also recommended so that they could refer to it at their will. They also required the timer to record approximately how much time they distributed on different stages of the planning process and writing process.

3.5.4 Writing Sessions

The present study is an experimental study in which the extraneous variables have to be controlled adequately so as not to affect the results. The task condition, for instance, was standardized for the participants. It is hoped that it is the two main variables, proficiency and the medium of planning, which leads to the differences in written performance.

The following table (Table 3.3) shows the procedure for the experiment. Each group completed two tasks, Chinese-planning Task and English-planning Tasks which will be named as “Chinese Task” and “English Task” in the following parts of the present study. Before the tasks were carried out, the subjects were provided instruction. The instruction was given in the language matching the languages the subjects were required to plan in. The choice of language for instruction was simply to supply them with more input which could facilitate the accommodation to the language they were to adopt for planning. In each task, subjects were asked to plan. They were given 10 minutes to plan. For the first task, High Proficiency Group 1 and Low Proficiency Group 1 had to plan in English while in the second task, they were asked to plan in Chinese. High Proficiency Group 2 and Low

Proficiency Group 2 performed the tasks in a reversed order to minimize the effect of task sequence for the effectiveness of planning. There will not be an experimental confound when the groups are arranged in this way.

High proficiency group 1	High proficiency group 2	Low proficiency group 1	Low proficiency group 2
Task 1 ➤ English instruction ➤ Planning in English ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 1 ➤ Chinese instruction ➤ Planning in Chinese ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 1 ➤ English instruction ➤ Planning in English ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 1 ➤ Chinese instruction ➤ Planning in Chinese ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire
Task 2 ➤ English instruction ➤ Planning in English ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 2 ➤ Chinese instruction ➤ Planning in Chinese ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 2 ➤ English instruction ➤ Planning in English ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire	Task 2 ➤ Chinese instruction ➤ Planning in Chinese ➤ Reflective questionnaire ➤ Writing ➤ Reflective questionnaire
Interview randomly selected subjects	Interview randomly selected subjects	Interview randomly selected subjects	Interview randomly selected subjects

Table 3.3 The procedure of the experiment

The participants had to write down words or clauses while planning. Such steps can ensure that the subjects really plan in a particular language. This particular language was used in each task for instruction as input control on planning. They were given 10 minutes to plan. The decision to provide ten minutes was based previous research on planning (Crookes, 1989; Foster and Skehan, 1996; Wendel, 1997; Mehnert 1998; Ellis and Yuan,

2004). Ellis and Yuan (2004) stated in their study that “only when at least 10-minute planning time was provided were there measurable effects on all their aspects of language use—fluency, accuracy, and complexity—in the case of oral production” (p.69). In the previous studies stated above, the researchers also chose to use 10 minutes as a planning condition. This is why 10 minutes were set in the present study. A reflection questionnaire was given right after they planned in order to capture the thinking processes of the subjects before they had forgotten what they have done. After the planning period has ended, subjects were requested not to continue planning. This decision was based on research by Ellis and Yuan (2004) and serves the purpose of ensuring that the planning actually occurred within the time limitations. The planning notes are permitted to be accessed during the interview (see below) as an example of how the subjects planned.

Subsequently, they were asked to write in English. The choice of topic was based on a study by Friedlander (1989) in which the topic of the writing can affect the performance of the participants both in planning and actual writing quality. To facilitate the planning process, the topic in the Chinese-planning task was related to Chinese culture about which participants must have acquired knowledge via Chinese. Chinese New Year was chosen as the topic since local students were most likely to be familiar with this topic. They would not have the excuse of having no experience with respect to the topic. The topic of the English task was about suggestions that the writers would like to give to Form 6 students on preparing for the A-level English examination. As students had all learned English in

the target language, it would be easier for the participants to generate ideas in English. This is also an experience that every participant must have had. When both topics are related to the personal experience of the participants, it is assumed to be equally easy for the participants to generate ideas to write.

To make the tasks more realistic, the topic was designed in the form of letters written by the Office of Student Affairs (OSA) of the university to the participants. OSA is a department in the Chinese University of Hong Kong handling students' affairs such as career planning and students' activities. The participants were asked to reply to the letters. In the Chinese New Year topic, the participants were asked to write something about Chinese New Year for a booklet which would be distributed to the exchange students who would come next semester. As for the topic of the English experience, the participants were told that the information gathered would be used to help some secondary 6 students to better prepare for the English examination in the coming year. For each task, the participants were allotted 15 minutes to write.

Immediately after they finished their writings, they had to complete another questionnaire. The same procedures were adopted in Task 2.

3.5.5 Semi-structured Interview

Several subjects were randomly selected from each group for an in-depth interview in order to collect more information about the planning process in general. Using a mixed

adoption of qualitative and quantitative methods, the proposed study would be capable of discerning a clearer picture of the phenomenon. The interviews were conducted as soon as possible. Some of the subjects chose to do an interview right after they had finished the whole study, while others chose to be interviewed on the day following the study. The participants were permitted the choice of speaking in English or Chinese during the interview so that they could better express themselves. The interviews were conducted in an informal way so that the participants felt at ease to provide maximal information about the tasks. The whole interviews were audio-taped since video-taping tended to make the participants uncomfortable and when tensed, they could not answer the questions as freely.

3.5.6 Collecting Questionnaires and Written Products

After the completion of the tasks and the interviews, the questionnaires and the written products were all collected. For a more detailed analysis, everything, including the notes, the outline, the draft and the finished essays, was collected.

3.6 Analysis of the Data

The analysis of the data consisted of three parts: (1) eliciting questionnaires and interviews; (2) analyzing written productions; and (3) processing quantitative data with SPSS.

3.6.1 Eliciting the Questionnaires and Interviews

The information gathered from the pre-task questionnaires and reflection

questionnaires was used as background information to help explain the performance of the participants.

The semi-structured interviews were transcribed by the researcher. As the participants could choose Chinese or English, the English interviews were transcribed directly while the Chinese ones were translated and then transcribed. The information elicited from the interview may help analyze the planning process.

3.6.2 Analyzing the Written Products.

Different measures were adopted in accounting for the complexity, accuracy and fluency of the performance data. The measurements were adopted from the study by Ellis and Yuan (2004). Fluency concerns the rate and length the writers can write. Complexity is confined to the syntactic aspects which includes the syntactic complexity and the syntactic variety. Accuracy is mainly concerned with how many errors can be traced in each sentence. The measurements are listed in the following part.

Fluency measures

1. Syllables per minute – a measure of the rate of production; the total number of syllables produced divided by the total number of minutes a participant took to complete the task.
2. Number of dysfluencies – the total number of words a participant reformulated (i.e. crossed out and changed) divided by the total number of words produced.

Complexity measures

1. The ratio of clauses to T-units in the participants' production.
2. The total number of different grammatical verb forms used in the task. Grammatical verb forms included tense (e.g. simple past, past continuous), modality (e.g. should, have to), and voice (e.g. passive voice in the past).

3. Mean Segmental Type-Token Ratio (MSTTR). The participants' (writing) were divided into segments of 40 words and the type-token ratio of each segment calculated by dividing the total number of different words by the total number of words in the segment.

Accuracy measures

1. Error-free clauses – the percentage of clauses that did not contain any errors. All errors in syntax, morphology, and lexical choice were considered. Lexical errors were defined as errors in lexical form or collocation (e.g. **I was waiting you*).
2. Correct verb forms – the percentage of accurately used verbs in terms of tense, aspect, modality, and subject-verb agreement.

(Yuan & Ellis, 2004, pp.71-72)

For the first measure of fluency, the syllable is divided by the time the participants took to complete the task. It is assumed to be 15 minutes since every participant was given 15 minutes to complete the task. As for the number of dysfluencies, the number of reformulated words was indicated by the words that the participants crossed or changed in any way. This is the reason why, when the participants did the task, they were asked not to use any correction pens.

The measures of complexity are a bit more complicated. The first is the ratio of clause to T-units. The manner in which the researchers defined clauses corresponds to a modern grammar approach. A sentence with a subject and a finite verb is definitely a clause. Besides the independent clauses, subordinate clauses, which includes adverbial clauses, nominal clauses and relative clauses, are also counted. Non-finite clauses, comparative clauses, nominal relative clauses and verbless clauses are also defined as clauses here. The example given in the Oxford Dictionary of English Grammar, "My father traveled by two

buses each day/ to get there on time, /leaving home at 5:00 am/ and usually returning after 10:00 pm”, will be categorized as containing four different clauses. T-unit, on the other hand, is defined as the shortest unit that can stand as a sentence alone. The ratio of clause to T-unit is expressed as a number. For other complexity measures, the number of different grammatical verb forms is counted. The Mean-Segment Type-Token Ratio is calculated in the way that the whole writing is divided into segments of 40 words apiece. The number of types and tokens are counted and transformed into a ratio which is expressed as a number.

The accuracy measures are simpler. The error free clauses are counted and expressed as percentages. Syntactic, morphological and lexical errors are all counted in each clause. The percentage of the correctly-used verb forms is used as an accuracy measure in the present study. Clauses were preferred over T-units as they are typically smaller, resulting in a more accurate measurement.

Raters were not used to analyze the written products. The reasons for this are numerous and based on the research of Tavakoli & Skehan (2005). Raters often exhibit a low level of reliability and consistency between raters is usually an issue. Additionally, it would be difficult to construct a scale that fairly categorizes proficiency overall according to certain qualifications. If a scale was indeed created, the difficulty of monitoring how the rater applied it would be created. For example, if a participant was extremely accurate, but moderately complex and not at all fluent, how should the rater analyze this situation? And if the rater gave this particular subject a rating of four out of ten, how would

one differentiate this subject from another who had received the same rating but lacked accuracy and was completely fluent? If two raters decide to weigh the same aspect differently, it would be more difficult to reflect on the real performance of the participants.

3.6.3 Processing the Data

After the data had been gathered, they were processed with the Statistical Package for Social Science (SPSS). Frequencies, percentages, mean values and standard deviations were used as the basic index to see if there were any intra-group and inter-group differences. One-way repeated ANOVAs were used to ascertain the effect of the medium of planning on written performance both for the inter-group and intra-group comparisons. T-tests were used to calculate the group performance on each task. Correlation analyses were also run to see the relationship between different aspects of performance.

3.7 Chapter Summary

This chapter described the methodology of the present study. Both quantitative and qualitative methods are used to ensure that the data can be as comprehensive as possible. While the quantitative method can better generalize a phenomenon, the qualitative part can help understand the inner process which cannot be observed. With the multiple sources of data, the study will be valid and reliable.

Notes

1. The Hong Kong Certificate Examination (HKCEE) is a public exam that every Form 5 student has to take if they want to go on studying in form 6. Everyone student must at least pass English Language as a minimum requirement to get promoted to Form 6. There are 7 different grades including A, B, C, D, E, Fail and Unclassified. Due to the low English proficiency of some of the CMI (Chinese medium instruction) schools, the Examination Authority set up two different syllabuses for English Language; Syllabus A, for students for lower-proficiency students, and Syllabus B, for higher-proficiency students.

There are totally five papers. In Paper 1, students are asked to produce a written text in response to written instructions. Paper 2 is Reading Comprehension and Usage in which students are required to “demonstrate an understanding of, and at times make inferences from or make use of, ideas, facts, opinions and feelings presented in various types of written texts” and to “demonstrate an awareness of the correct use of language” (Hong Kong Examinations and Assessment Authority). In Paper 3, Integrated Listening, Writing and Reading, candidates have to complete some tasks by selecting and integrating information from both spoken source and written source. Paper 4 is the oral examination in which students have to role-play and participate in a discussion to demonstrate their conversational strategies.

2. The Hong Kong Advanced Level Examination (HKALE) is a public examination for Form 7 students who would like to go to university. Passing the Use of English is a minimum requirement to go to university. Like the HKCEE, there are also 7 grades, including A, B, C, D, E, Fail and Unclassified. However, in HKAL, there are only 4 sections.

Section A is a listening test in which students have to get particular information by understanding, interpreting and organizing the information from speeches made by native English speakers. In Section B, students are given at least 3 topics to choose to write a minimum of 500 words on in 1 hour and 15 minutes. Section C is divided into two parts: reading and language system. In the reading parts, the ability to understand the expository texts is tested. For the language system half, students have to complete some exercises related to lexicon, grammar, morphology and syntax, which are all mixed together. Section D is the oral examination and students are expected to make a speech with some preparation and a group discussion.

CHAPTER FOUR

RESULTS

4.1 Introduction

Four research questions were asked and this chapter aims to answer all four of them with different statistical techniques, namely, ANOVAs, MANOVAs and t-tests by using SPSS. The first part of this chapter examines the effect of the medium of planning on the written performance with respect to fluency, accuracy and complexity with and without the consideration of the proficiency level of the participants. The second part compares the performance of the two groups in each task, the task in which they planned in Chinese and the task in which they planned in English.

4.2 Effects of the Medium of Planning on Written Performance

The three examined areas of written performance include fluency, accuracy and complexity. There are totally 7 measures which would be dependent variables. The independent variables are the medium of planning and the proficiency level of participants. This subchapter reveals the quantitative results of the three research questions.

4.2.1 The Effects of Task Sequences on Written Performance

Research question one and two seek to determine if the medium of planning affects the three aspects of performance without influencing proficiency. As the task sequence may have an influence on the results, a series of One-way ANOVAs was carried out to see

if there was a difference between participants who completed the English Task first or the Chinese Task first. The results are presented in the following two tables.

	English first		Chinese first		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	21.83	6.12	19.74	7.68	1	18	0.46	.51
Number of dysfluencies	0.04	0.17	0.06	0.04	1	18	1.67	.21
Error-free clauses	76.06	10.69	79.29	12.83	1	18	0.37	.55
Correct verb forms	95.96	3.16	96.45	4.00	1	18	0.10	.76
Ratio of clauses to T-units	1.54	0.10	1.46	0.15	1	18	2.57	.13
Number of different grammatical verb forms	30.14	12.78	32.70	13.12	1	18	0.20	.66
Mean Segmental Type-Token Ratio	0.77	0.26	0.82	0.07	1	18	0.31	.59

Table 4.1 English Task with Different Task Sequences

	English first		Chinese first		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	16.11	5.37	22.75	7.68	1	18	5.03	.04*
Number of dysfluencies	0.06	0.02	0.08	0.07	1	18	0.94	.35
Error-free clauses	72.24	11.35	72.24	19.14	1	18	0.12	.74
Correct verb forms	85.35	14.55	90.81	10.96	1	18	0.90	.36
Ratio of clauses to T-units	1.62	0.23	1.44	0.20	1	18	2.45	.08
Number of different grammatical verb forms	27.00	10.14	27.30	6.90	1	18	0.01	.94
Mean Segmental Type-Token Ratio	0.86	0.03	0.81	0.10	1	18	2.45	.14

Table 4.2 Chinese Task with Different Task Sequences

Referring to Table 4.1 and Table 4.2, all the measures except for one, syllables per minute under the Chinese Task, show no statistical significance with the effect of task sequence. The significance value is less than 0.05 and the majority of the values are not even close to significant. It shows that the task sequence does not affect the performance aside for the syllables per minute measure under the Chinese Task. Participants who did the Chinese Tasks first produced more syllables per minute within this task.

4.2.2 The Effects of the Medium of Planning without the Consideration of Proficiency

To investigate the effects of the medium of planning on written performance, fluency, accuracy and complexity, a series of one-way repeated ANOVA was carried out. The seven different dependent variables include (1) Syllables per minute (SPM), (2) number of dysfluencies (D), (3) Error-free clauses (EFC), (4) correct verb forms (CVF), (5) Ratio of clauses to T-units (RCT), (6) Number of different grammatical verb forms (GVF), and (7) Mean Segmental Type-Token Ratio (MSTTR). The results of the ANOVAs are shown in the following table with the F-values, significance levels, means and standard deviations.

Measures		ANOVA		Mean (Standard Deviation) of the Tasks	
		F	P	English Task	Chinese Task
Fluency	Syllables per minute	0.55	.47	20.79 (SD= 6.84)	19.43 (SD=7.29)
	Number of dysfluencies	7.33	.01*	0.05 (SD=0.03)	0.07 (SD=0.05)
Accuracy	Error-free clauses	1.27	.27	77.68 (SD=11.61)	73.44 (SD=15.36)
	Correct verb forms	7.75	.01*	96.21 (SD=3.52)	88.08 (SD=12.84)
Complexity	Ratio of clauses to T-units	0.30	.59	1.50 (SD=0.13)	1.53 (SD=0.23)
	Number of different grammatical verb forms	1.60 2	.22	31.40 (SD=12.68)	27.15 (SD=8.44)
	Mean Segmental Type-Token Ratio	0.66	.43	0.80 (SD=0.19)	0.83 (SD=0.08)

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.3 Results from the One-way Repeated ANOVA on all measures for English Task and Chinese Task

Of the two measures of fluency, only one measure shows a significant difference across the English Task and Chinese Task. Participants produced more syllables in the English Task ($M=20.79$) than in the Chinese Task ($M=19.43$). However, the difference is not significant. Participants also had fewer dysfluencies in the English Task ($M=0.05$) than in the Chinese Task ($M=0.07$) significantly ($F=7.33$, $p=.01$). So, it can be concluded that the participants produced more fluent language when they planned in English rather than in Chinese when it is measured by number of dysfluencies.

As for the accuracy measures, only one measure out of two shows a significant difference. Despite the low significance, participants had higher error-free clauses in the English Task ($M=77.68\%$) than in the Chinese Task ($M=73.44\%$). When the accuracy is measured by correct verb forms, there is a significant difference between the scores in these two tasks. Participants performed better in the English Task ($M=96.21\%$) than in the Chinese Task ($M=88.08\%$) when the percentage of correct verb forms are concerned ($F=7.75$, $p=.01$). Like fluency, the performance in English Task was better than that in the Chinese Task in the aspect of accuracy. This detail shows participants produced more accurate language when they planned in English measured by number of correct verb forms.

The three measures of complexity, however, did not yield any significance. The ratio of clauses to T-units measures the syntactic complexity. Surprisingly, participants performed slightly better in the Chinese Task ($M=1.53$) than in the English Task ($M=1.50$)

in this aspect of complexity. However, the difference is not statistically significant. In the case of syntactic variety measured by the number of different grammatical verb forms, participants did better in the English Task ($M=31.40$) than in the Chinese Task ($M=27.15$) with a slight significant difference. As for the lexical variety measured by Mean Segmental Type-Token Ratio, participants performed quite similarly in both tasks with $M=0.80$ in the English Task and $M=.083$ in the Chinese Task. Overall, the results show that participants produced more syntactically varied and lexically varied language in the Chinese Task. However, such a small difference in means and significance suggest that participants produced similar syntactically-complex and lexically-varied language regardless of the medium of planning, yet they produced slightly more syntactically-varied language when they used English as the medium of planning rather than Chinese.

4.2.3 The Effects of the Medium of Planning with the Consideration of Proficiency

As the task sequence may have had an effect on the findings, a series of One-way ANOVA was carried out to see if the results in the 7 different measures differed significantly. The following four tables (Table 4.4, Table 4.5, Table 4.6 and Table 4.7) show the figures of the ANOVAs. The significance value is set at the level of .05.

	High 1		High 2		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	21.43	7.22	21.72	9.23	1	8	0.00	.96
Number of dysfluencies	0.03	0.02	0.05	0.39	1	8	1.10	.32
Error-free clauses	82.07	6.69	86.38	11.54	1	8	0.52	.49
Correct verb forms	95.33	4.46	97.0	3.32	1	8	0.46	.52
Ratio of clauses to T-units	1.54	.10	1.45	.04	1	8	4.30	.07
Number of different grammatical verb forms	28.80	16.62	35.60	15.66	1	8	0.44	.52
Mean Segmental Type-Token Ratio	0.71	0.37	0.87	0.03	1	8	0.87	.38

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.4 English task (High 1 vs. High 2)

	High 1		High 2		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	12.88	3.82	25.60	9.53	1	8	7.67	.024*
Number of dysfluencies	0.06	0.02	0.10	0.10	1	8	0.88	0.38
Error-free clauses	73/33	16.02	85.42	11.30	1	8	1.90	0.21
Correct verb forms	95.19	4.20	95.59	4.32	1	8	0.02	0.89
Ratio of clauses to T-units	1.60	0.27	1.44	0.25	1	8	0.94	0.36
Number of different grammatical verb forms	26.80	10.03	28.00	7.52	1	8	0.05	0.84
Mean Segmental Type-Token Ratio	0.86	0.03	0.84	0.05	1	8	0.78	0.40

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.5 Chinese Task (High 1 vs. High 2)

	Low 1		Low 2		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	22.25	5.62	17.76	6.15	1	8	1.45	.26
Number of dysfluencies	0.41	0.01	0.07	0.05	1	8	0.53	.48
Error-free clauses	670.05	11.05	72.20	10.54	1	8	0.10	.76
Correct verb forms	96.59	1.27	95.89	4.91	1	8	0.09	.76
Ratio of clauses to T-units	1.54	0.11	1.47	0.21	1	8	0.53	.49
Number of different grammatical verb forms	31.40	9.34	29.80	10.97	1	8	0.06	.81
Mean Segmental Type-Token Ratio	0.83	0.04	0.77	0.07	1	8	2.95	.12

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.6 English Task (Low 1 vs. Low 2)

	High 1		High 2		ANOVA			
	Mean	S.D.	Mean	S.D.	df 1	df 2	F	Sig.
Syllable per minute	19.33	4.92	19.90	4.64	1	8	0.04	.86
Number of dysfluencies	0.06	0.02	0.07	0.26	1	8	0.03	.86
Error-free clauses	75.93	5.39	59.07	16.20	1	8	4.87	.06
Correct verb forms	75.50	14.70	86.04	13.95	1	8	1.35	.28
Ratio of clauses to T-units	1.63	0.22	1.43	0.15	1	8	2.73	.14
Number of different grammatical verb forms	27.20	11.43	26.60	7.0	1	8	0.01	.92
Mean Segmental Type-Token Ratio	0.86	0.03	0.78	0.14	1	8	1.74	.22

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.7 Chinese Task (Low 1 vs. Low 2)

From the comparison between the two High Proficiency Groups, it can be seen that there are no significant differences on six of the measures in both the English and Chinese tasks ($p > 0.05$), the exception being for syllables per minute in the Chinese Task. The High Proficiency Group 2 outperformed the High Proficiency Group 1 significantly with $F(1,8)=7.67$, $p=.02$. Such a significant difference, however, cannot be used to draw the conclusion that High Proficiency Group 2 was better significantly as the difference between the standard deviations for both tasks is quite big. One participant in that High Proficiency Group 1 performed very poorly on this measure which lowered the mean of the whole group. As a result, it can be concluded that the task sequence did not affect the results of the findings. In the present study, the two High Proficiency Groups would be treated as one group named “High Proficiency Group”.

As for the two Low Proficiency Groups, in both the English and Chinese Tasks, there is no statistical significance in all 7 measures between the two groups. Therefore, task

effect can be concluded as non-significant. Both groups can be combined together as one Low Proficiency Group.

To examine the effect of proficiency, a series of one-way repeated ANOVAs was performed to see if the results of performance in each aspect will vary when proficiency is considered. The following tables (Table 4.8 and Table 4.9) show the results of the ANOVAs.

Measures		ANOVA		Mean (Standard Deviation) of the Tasks	
		F	P	English Task	Chinese Task
Fluency	Syllable per minute	0.47	.51	21.57 (SD=7.81)	19.24 (SD=9.58)
	Number of dysfluencies	5.60	.04*	0.04 (SD=0.03)	0.08 (SD=0.07)
Accuracy	Error-free clauses	1.15	.31	84.23 (SD=9.18)	79.38 (SD=14.54)
	Correct verb forms	0.79	.40	96.17 (SD=3.81)	95.39 (SD=4.01)
Complexity	Ratio of clauses to T-units	0.12	.74	1.49 (SD=0.09)	1.52 (SD=0.26)
	Number of different grammatical verb forms	0.70	.42	32.20 (SD=15.6)	27.40 (SD=8.38)
	Mean Segmental Type-Token Ratio	0.47	.51	0.79 (0.26)	0.85 (SD=0.04)

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.8 One-way repeated ANOVAs of High Proficiency Group

Measures		ANOVA		Mean (Standard Deviation) of the Tasks	
		F	P	English Task	Chinese Task
Fluency	Syllable per minute	0.06	.82	20.00 (SD=6.04)	19.62 (SD=4.52)
	Number of dysfluencies	1.98	.19	0.05 (SD=0.04)	0.06 (SD=0.02)
Accuracy	Error-free clauses	0.34	.58	71.12 (SD=10.24)	67.50 (SD=14.44)
	Correct verb forms	10.11	.01*	96.24 (SD=3.40)	80.77 (SD=14.61)
Complexity	Ratio of clauses to T-units	0.17	.69	1.50 (SD=0.16)	1.53 (SD=0.21)
	Number of different grammatical verb forms	0.92	.36	30.60 (SD=9.65)	26.90 (SD=8.95)
	Mean Segmental Type-Token Ratio	0.19	.67	0.80 (SD=0.62)	0.82 (0.10)

*Significance differences are reached across the two tasks ($p < .05$)

Table 4.9 One-way repeated ANOVAs of Low Proficiency Group

When proficiency is concerned, not every measure reached statistical significance. For the High Proficiency Group, of the two fluency measures, one showed a significant difference. Participants performed better in the English Task as they produced more syllables per minute ($M=21.57$) when compared to the result in the Chinese Task ($M=19.24$). The difference did not reach significance. However, the number of dysfluencies in the English Task was much lower ($M=0.04$) than in the Chinese Task ($M=0.08$). The difference was significant ($p=.04$). Participants in the High Proficiency Group produced more fluent language in the English Task than in the Chinese Task. As for accuracy, despite the insignificance of the difference, the advanced learners tended to produce more accurate language in the English Task when measured by error-free clauses

and number of correct verb forms. Among the three complexity measures, two of them suggested that the High Proficiency Group produced more complex language in the Chinese Task. The syntactic complexity, as measured by the ratio of clauses to T-units, was higher in the Chinese Task (M=1.52) than in the English Task (M=1.49). Lexical variety was also higher in the Chinese Task (M=0.85) when compared to the result in the English Task (M=0.79). The unnoticeable differences point to the direction that medium of planning did not affect the complexity of High Proficiency Group. However, participants produced more varieties of grammatical verb forms in the English Task (M=32.2) than in the Chinese Task (M=27.4). None of the measures showed any significance.

The results of the One-way repeated ANOVAs of the Low Proficiency Group indicate that six of seven measures show insignificant differences. However, there was a tendency for participants to perform better in the English Task with the exception of the two complexity measures. Participants produced more syllables per minute in the English Task (M=20.00) than in the Chinese Task (M=19.62). The number of dysfluencies was also lower in the English Task (M=0.05) in contrast to the result of the Chinese Task (M=0.06). The performance on the English Tasks was slightly better than the Chinese Tasks. The accuracy differences between the Chinese Task and the English Task are bigger. Participants generally achieved higher accuracy when using English as the medium of planning. The percentage of the error-free clauses was 71.12% in the English Task and in the Chinese Task was 67.50%. When accuracy is measured by the correct verb forms, the

participants performed notably better in the English Task (M=96.24) with a significant difference from the result in the Chinese Task (M=80.77). The significance value was .01. It can be concluded that using English as the medium of planning enhances accuracy when measured by number of correct verb forms. As for complexity, like the High Proficiency Group, participants produced slightly more syntactically complex and lexically varied language in the Chinese Task. However, the difference was so small that it would not be fair to conclude that using Chinese as the medium of planning facilitates complexity. Syntactic variety, as measured by the different grammatical verb forms, was slightly higher in the English Task (M=30.60), with a result in the Chinese Task at 26.90. The results did not reach statistical significance here, either.

4.2.4 The Effects of the Medium of Planning and Proficiency Level on Written Language Performance

To investigate the effects of the medium of planning and proficiency on language performance, a repeated measure MANOVA was carried out. The dependent variables were the seven measures of fluency, accuracy and complexity. The independent variables are the medium of planning and proficiency level. The results are presented in the following table (Table 4.10).

Effects	Pillai's Value	F	Sig.
Medium of Planning	.329	8.832	.008*
Medium of Planning X Proficiency	.040	0.757	.396

Table 4.10 Results of repeated measures MANOVA

From the significance value in the above table, it can be seen that the medium of planning did play an important role in determining the performance of the participants.

However, when proficiency was concerned, the effect was not as robust.

In order to check if the results would be different when different measures are tested separately, seven repeated measures MANOVAs were carried out. The figures are presented in the following table.

Measure	Effects	Pillai's Value	F	Sig.
Syllable per minute	Medium of Planning	.03	0.53	.48
	Medium of Planning X Proficiency	.02	0.27	.61
Number of Dysfluencies	Medium of Planning	.30	7.58	.01*
	Medium of Planning X Proficiency	.08	1.64	.21
Error-free clauses	Medium of Planning	.06	1.21	.29
	Medium of Planning X Proficiency	.00	0.03	.88
Correct verb forms	Medium of Planning	.38	10.80	.004*
	Medium of Planning X Proficiency	.33	8.82	.008*
Ratio of clauses to T-units	Medium of Planning	.02	0.28	.60
	Medium of Planning X Proficiency	.00	0.00	.98
Number of different grammatical verb forms	Medium of Planning	.08	1.52	.23
	Medium of Planning X Proficiency	.00	0.03	.88
Mean Segmental Type-Token Ratio	Medium of Planning	.03	0.63	.44
	Medium of Planning X Proficiency	.01	0.63	.64

Table 4.11 Results of the repeated measures MANOVAs for each measure

When the seven different measures are examined in various ways, the effects of proficiency are quite different. The medium of planning is proved to be significant in two of the measures: fluency, measured by the number of dysfluencies ($p=.01$), and accuracy, measured by correct verb forms ($p=.004$). The interaction effects for medium of planning and proficiency, however, are not significant in seven of the measures. The only significant one was accuracy, measured by correct verb forms ($p=0.008$). This means that the

distinction between the High Proficiency Group and the Low Proficiency Group are significantly different with respect to the effect of the medium of planning.

4.3 The Comparison between Two Proficiency Groups in Each Task

To examine which medium of planning is beneficial for a particular group of learners, an Independent t-test was performed to calculate the differences between the High Proficiency Group and the Low Proficiency Group in each task. The results are presented in the following table.

Measures	Mean (Std. Deviation)		T	Sig.
	High	Low		
Syllable per minute	21.57 (SD=7.81)	20.00 (SD=6.04)	.50	.62
Number of Dysfleuncies	0.04 (SD=0.03)	0.05 (SD=0.04)	.56	.58
Error-free clauses	84.23 (SD=9.18)	71.12 (SD=10.24)	3.01	.007*
Correct verb forms	96.17 (SD=9.18)	96.24 (SD=3.40)	.04	.97
Ratio of clauses to T-units	1.49 (SD=0.09)	1.50 (SD=0.16)	.17	.87
Number of different grammatical verb forms	32.20 (SD=15.64)	30.60 (SD=9.65)	.28	.79
Mean Segmental Type-Token Ratio	0.79 (SD=0.26)	0.80 (SD=0.06)	.12	.91

*Significance differences are reached across the two tasks ($p < .05$)

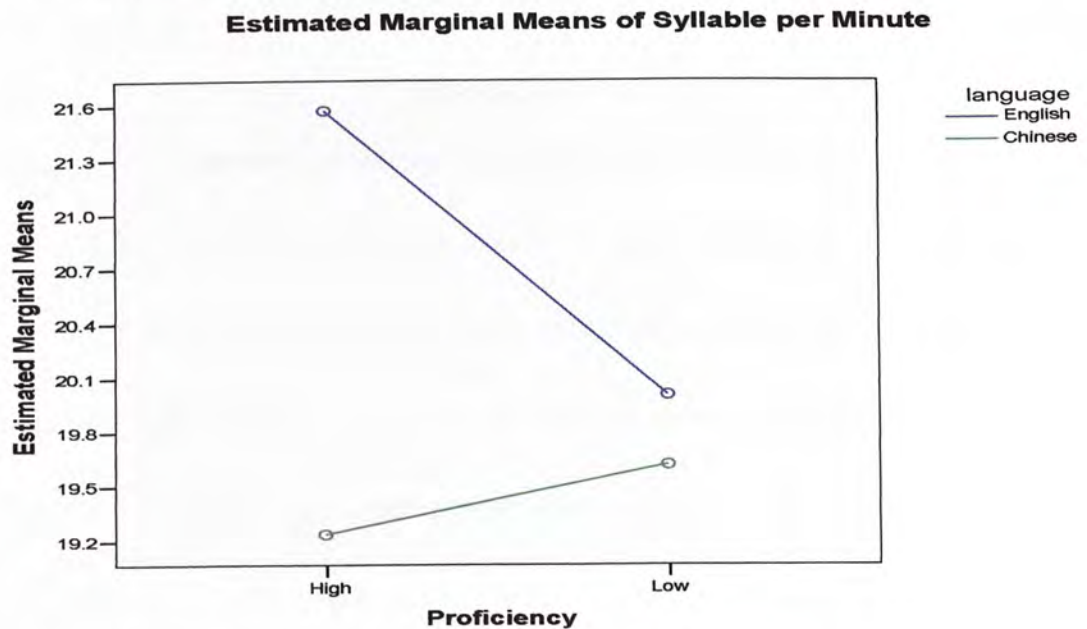
Table 4.12 The results of t-tests of the English Task

Measures	Mean(Std. Deviation)		T	Sig.
	High	Low		
Syllable per minute	19.24 (SD=9.58)	19.61 (SD=4.52)	.11	.91
Number of Dysfleuncies	0.08 (SD=0.07)	0.06 (SD=0.02)	.68	.50
Error-free clauses	79.38 (SD=14.54)	67.50 (SD=14.44)	1.83	.08
Correct verb forms	95.39 (SD=4.02)	80.77 (SD=14.61)	3.05	.007*
Ratio of clauses to T-units	1.52 (SD=0.26)	1.53 (SD=0.21)	.99	.92
Number of different grammatical verb forms	27.40 (SD=8.38)	26.90 (SD=8.95)	.13	.90
Mean Segmental Type-Token Ratio	0.85 (SD=0.82)	0.82 (0.10)	.91	.37

*Significance differences are reached across the two tasks ($p < .05$)

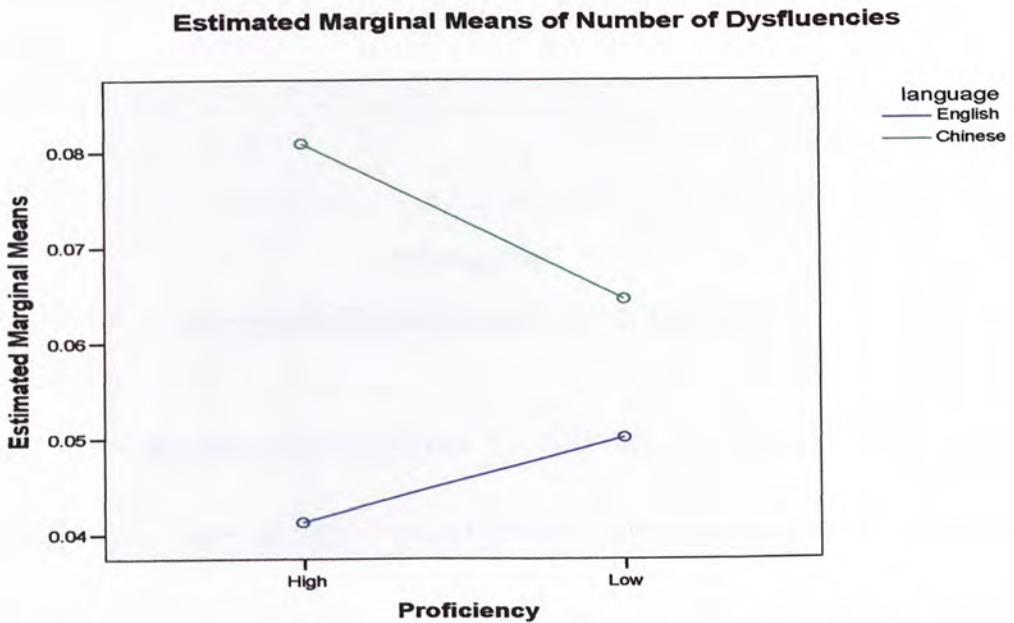
Table 4.13 The results of t-tests of the Chinese Task

With the help of a graph of the figures from the above tables, it is easier to see which group performs better in which task, revealing the most suitable medium of planning for each proficiency group.



Graph 4.1 The estimated marginal means of syllable per minute

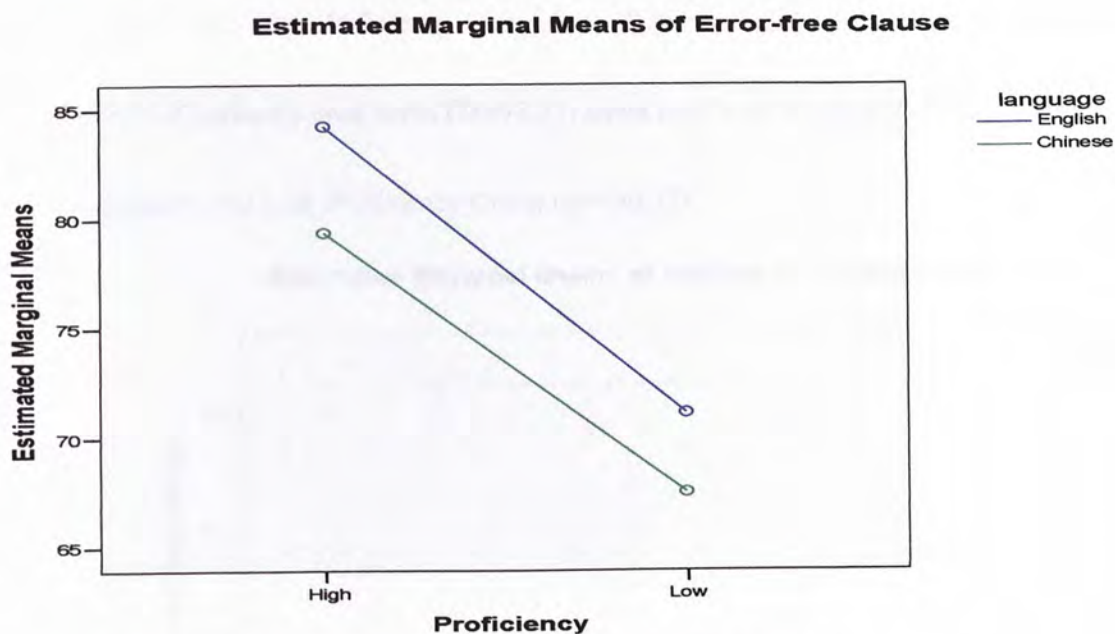
Referring to Graph 4.1 about syllable per minute, the slope of the two lines show that the High Proficiency Group performed better ($M=21.57$) than the Low Proficiency Group ($M=20.00$) in the English Task. However, the Low Proficiency Group ($M=19.61$) outperformed the High Proficiency Group ($M=19.24$) in this measure in the Chinese Task. Neither measure reached statistical significance.



Graph 4.2 The estimated marginal means of number of dysfluencies

The number of Dysfluencies, another fluency measure, (as shown in Graph 4.2) indicates that the High Proficiency Group performed better than the Low Proficiency in the English Task as shown by the blue line. The line bears an upward slope because a high number indicates a higher number of dysfluencies. For the Chinese Task, the Low Proficiency Group ($M=0.06$) outperformed the High Proficiency Group ($M=0.08$). This means that the High Proficiency Group was less fluent when they were asked to plan the

writing in Chinese. The differences, once again, are not significant.



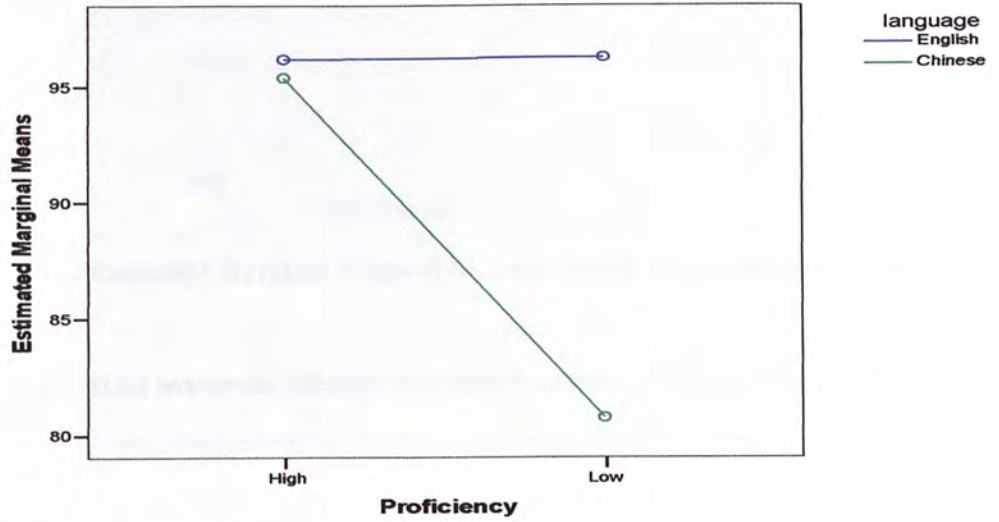
Graph 4.3 The estimated marginal means of error-free clause

The two lines shown in Graph 4.3 show that for Error-free Clauses, one of the accuracy measures, the High Proficiency Group always performed better, regardless of the medium of planning. In the English Task, in particular, the High Proficiency Group (M=84.23%) outperformed the Low Proficiency Group (M=71.12%) significantly with a p value of .007. When the High Proficiency Group used English as the medium of planning, they outperformed the Low Proficiency Group.

Another accuracy measure, the number of correctly used verbs (as shown in Graph 4.4), suggests that the two Proficiency Groups performed similarly in the English Task. Though the Low Proficiency Group had a slightly higher number (M=96.24 vs. M=96.17), such a small difference could not reach any significance statistically. For the Chinese Task,

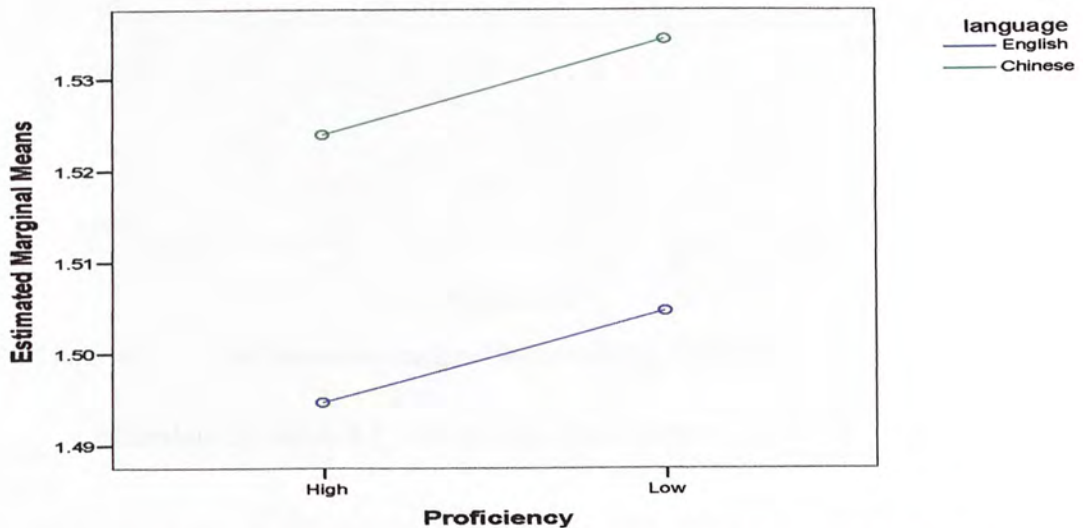
on the contrary, there was a significant difference ($p=.007$) between the High Proficiency Group and the Low Proficiency Group. The High Proficiency Group had a much higher number of correctly used verbs ($M=95.35$) when they were asked to plan in Chinese when compared to the Low Proficiency Group ($M= 80.77$).

Estimated Marginal Means of Number of Correctly Used Verbs



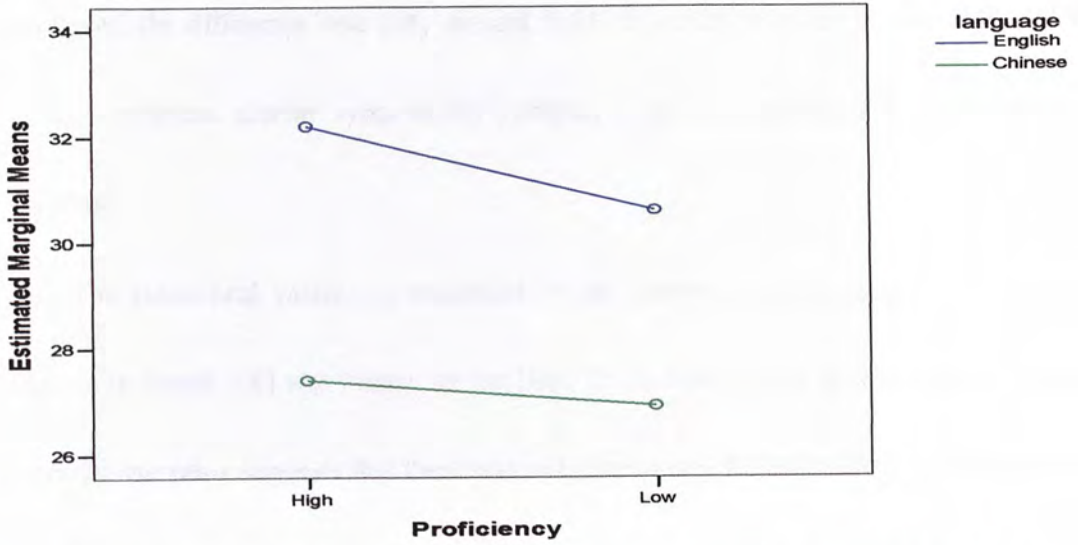
Graph 4.4 The estimated marginal means of number of correctly used verbs

Estimated Marginal Means of Ratio of Clause to T-units



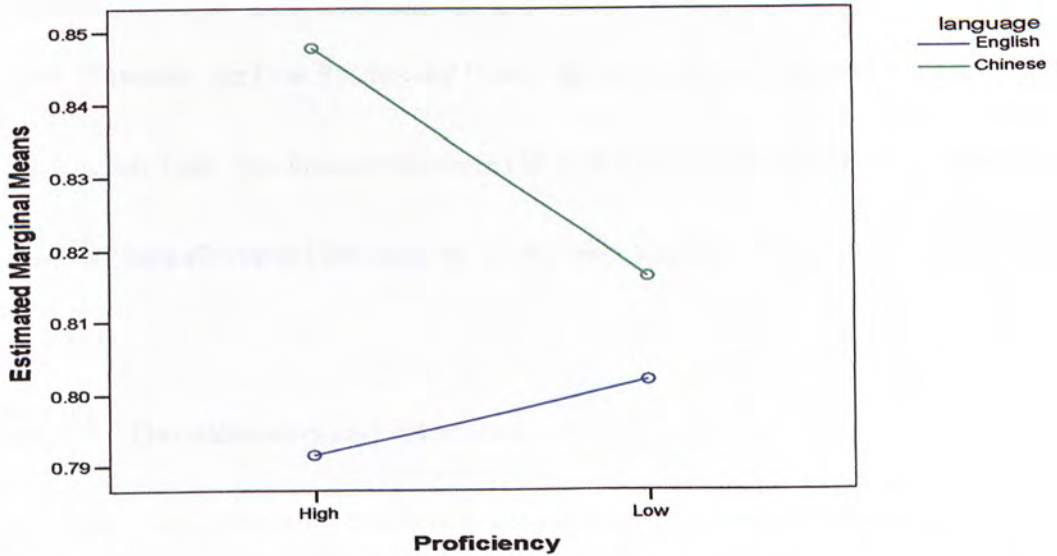
Graph 4.5 The Estimated Marginal Means of Ratio of Clauses to T-units

Estimated Marginal Means of Number of Different Grammatical Verbs



Graph 4.6 The Estimated Marginal Means of Number of Different Grammatical Verbs

Estimated Marginal Means of Mean-Segmental Type-Token Ratio



Graph 4.7 The estimated marginal means of Mean-Segmental Type-Token Ratio

Referring to Graph 4.5, 4.6 and 4.6, they showed the results of all the complexity measures. None of the measures yielded any significance. The graphs are only useful in determining the trend of the difference. The Low Proficiency Group produced more

syntactically complex language when they used either the English or Chinese Task to plan. However, the difference was only around 0.01. It would be fairer to conclude that the groups produced similar syntactically complex language regardless of the medium of planning.

The syntactical variety, as measured by the number of different grammatical verbs (shown in Graph 4.6) was higher for the High Proficiency Group in both tasks. The small significance value suggests that there was only a tendency for High Proficiency learners to produce more syntactically varied language, regardless of the medium of planning.

The Mean Segmental Type-Token Ratio (in Graph 4.7) measured lexical variety. The High Proficiency Group performed better than the Low Proficiency Group in the Chinese Task. However, the Low Proficiency Group did better than the High Proficiency Group in the English Task. The minute differences in both tasks suggest that both groups produced similarly lexically-varied language, no matter what language they used to plan.

4.4 Questionnaires and Interviews

The data obtained from the questionnaires provided information about the participants' attitudes towards medium of planning, its relationship with writing and also the time they distributed during planning writing. The data were analyzed by the counting the means of each of the questions in each task. The following table shows the results of each question.

	Attitude towards English as medium of planning			Attitude towards Chinese as medium of planning		
	All	High	Low	All	High	Low
Confident	4.75	4.90	4.60	4.30	4.00	4.50
Comfortable	5.00	5.30	4.70	3.80	4.00	3.60
Natural	4.90	5.00	4.80	3.30	3.40	3.20
Easy	4.75	5.00	4.50	3.80	3.90	3.70
Able to	4.45	4.90	4.00	4.15	4.10	4.20
Like	4.80	4.90	4.70	3.10	3.30	2.90
Helpful	4.65	4.80	4.50	2.85	2.80	2.90
Help write faster	4.65	4.70	4.60	2.70	2.90	2.50
Help write more	4.30	4.30	4.30	2.75	2.90	2.60
Help vary sentence structure	3.80	3.90	3.70	2.55	2.60	2.50
Help vary vocabulary choice	3.75	4.00	3.50	2.65	2.50	2.80
Like planning overall	4.60	5.10	4.20	2.45	2.90	2.00

Table 4.14 Attitudes towards using different languages as the medium of planning

The higher numbers in the above table indicate the more positive responses from participants. In general, the participants had a much more positive attitude towards planning in English, as the mean scores in every column in the English Task were higher than those in the Chinese Task, regardless of the proficiency groups. Besides the above descriptions (confident, comfortable, natural, easy, helpful), some participants revealed that English planning was “necessary” and they felt more “free” to plan in English. Chinese as a medium of planning, however, received a lot of negative comments. Not only was it sub-par to English as a medium of planning, some subjects described it as “weird”, “inconvenient”, “strange”, “troublesome” and even “non-sense”.

The following table (Table 4.15) shows the time distribution of the participants on different parts of the writing process during planning and writing.

	Time distribution in English Task			Time distribution in Chinese Task		
	All	High	Low	All	High	Low
Thinking of ideas (planning)	135.25	160.00	110.50	158.50	181.00	136.00
Thinking of word choice (planning)	42.30	24.10	60.50	42.10	38.20	46.00
Brainstorming (planning)	131.75	141.00	122.50	111.00	96.00	126.00
Organizing ideas (planning)	79.30	50.60	108.00	51.50	39.50	63.50
Finding the right words/phrases (pretask)	43.80	33.10	54.50	24.25	28.00	20.50
Writing down ideas (planning)	141.50	136.00	147.00	120.75	72.50	169.00
Thinking of ideas (writing)	131.50	76.00	187.00	160.00	138.00	182.00
Thinking of word choice (writing)	92.85	68.70	117.00	88.75	95.50	82.00
Organizing ideas (writing)	96.50	49.00	144.00	86.50	48.00	125.00
Finding right words/ phrases (writing)	78.60	63.70	93.50	90.65	82.30	99.00
Writing down ideas (during writing)	408.00	514.00	302.00	323.75	376.00	289.50

Table 4.15 Time distribution on each task

During the whole writing process, participants spent most of their time writing down the ideas during planning and real writing, in both Chinese and English Tasks. The next most common use of time was for thinking of ideas and brainstorming during planning. The time distribution in each task was pretty much similar.

4.5 Chapter Summary

The four research questions were answered in this chapter. Participants produced more fluent and accurate language when they planned in English as indicated by some measures. However, the medium of planning seemed not to affect complexity that much as participants produced similarly syntactically-complex and lexically-varied language, regardless of the medium of planning. Yet, they produced slightly more

syntactically-varied language when they used English as the medium of planning rather than Chinese.

When proficiency is concerned, participants in both the High Proficiency Group and Low Proficiency Group produced more fluent and accurate language when using English as the medium of planning as indicated by some measures. However, the medium of planning did not affect complexity, even though participants produced more grammatical verb forms in the English Task than in the Chinese Task.

Under the same planning condition, English as the medium of planning, the High Proficiency Group produced more fluent and accurate language in general when compared to the Low Proficiency Group. When both groups used Chinese to plan, however, the High Proficiency Group was less fluent, but more accurate than the Low Proficiency Group. The complexity seemed to be quite similar regardless of the medium of planning and despite the insignificant difference in the measure of syntactic variety that favored the High Proficiency Group.

CHAPTER FIVE

FINDINGS AND DISCUSSION

5.1 Introduction

Chapter 5 provides the findings and discussions based on the results described in the previous chapter where the four research questions were answered. In this chapter, the major findings will be discussed with reference to some of the previous studies and writing models. Questions about the relationship between the medium of planning and written performance will be answered.

5.2 The Relationship between the Medium of Planning and Written Performance

Questions 1 and 2 seek to find out if L2 learners produce more accurate, fluent and complex language when they use Chinese or English as the medium of planning. The results show that English as a medium of language seems to enhance the written performance of L2 learners in the aspect of fluency and accuracy as indicated by some measures, but not complexity. Question 3 seeks to find out if the effects on each aspect of performance will be different on L2 learners with different proficiency, High Proficiency learners vs. Low Proficiency learners. The results show that using English as medium of planning is still favorable both to High Proficiency Group and Low Proficiency Group.

5.2.1 The Effects of the Medium of Planning on Fluency

Part of question 1 and question 2 seeks to find out how the medium of planning affects the fluency of ESL learners. Without considering the factor of proficiency, it is found that participants produced more fluent language when they planned in English. The result is significant when fluency is measured by number of dysfluencies.

In order to understand more about fluency, it is important to understand written language production first. The model proposed by Chenoweth and Hayes (2001), which adapted the model proposed by Kaufer et al. (1986) and incorporated some elements from the models of composing and revision by Hayes (1996), was chosen to explain the basic written language production process (see Figure. 5.1)

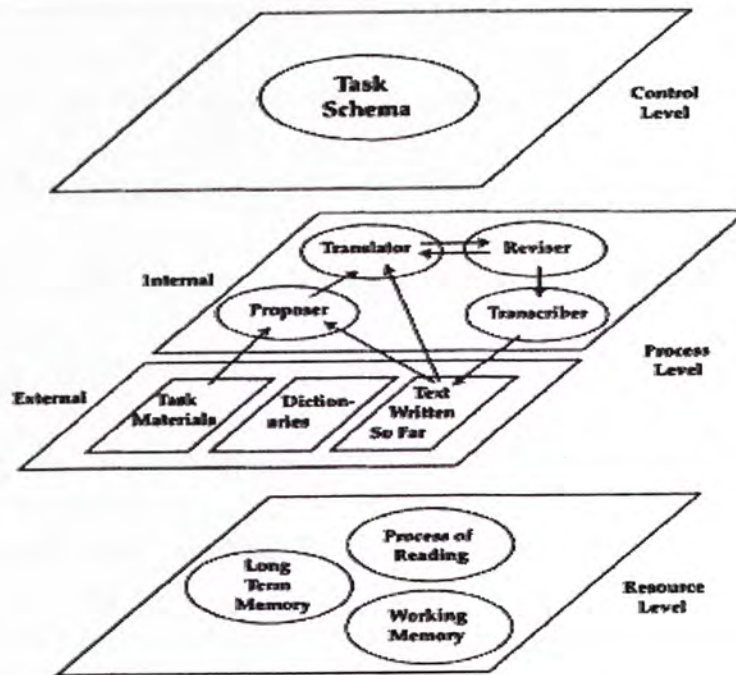


Figure 5.1 A model of the written language production. Chenoweth and Hayes (2001)

The simple process for writing starts with the proposer, which is influenced by the Task Materials such as task goal. The proposer first generates prelinguistic ideas and passes it to the translator. The translator turns the ideas into strings of language with appropriate word order and grammar, as well as stores its output in an articulatory buffer, waiting for the reviser to evaluate it. The transcriber then turns the content of the articulatory buffer into written language if the output is judged acceptable. However, the writing process does not always follow this chain of events. Different writers and writing tasks may change the order in numerous ways. In the present study, we assumed that the writers produced written language following the model. The language production will be fluent if the whole process is smooth. The process will be the smoothest when the ideas generated go through each component only once and quickly.

According to the data collected from the questionnaires, it helps to explain why participants performed better in the aspect of fluency when they used English to plan through the use of the model above. As revealed by most of the participants, they felt that they could write “faster” and “smoothly” when they used English to plan. In fact, their attitude towards the two languages as medium of planning did affect how fast and how smoothly they could write. They described planning in English as “natural”, “comfortable” and “free”. All these positive affective factors led them to write with ease. When they were writing in a more relaxed and comfortable way, it lightened their mental burden. With more mental resources available, they could work with higher efficiency. This is also a way to

enhance fluency. In fact, one participant reviewed his attitude towards planning in Chinese as thus:

“I think it is really bad. When I was doing that at that time, I wasn’t trying my best because I thought it was troublesome. It was troublesome. Yes.”

The attitude always affected how much effort they apply to the task. When they did not try hard enough, it was understandable why the performance was worse. Cohen, Brooks-Carson and Jacobs-Cassuto (2000) discovered in their study that students encountered difficulties when they “were asked to work in a non-preferred mode” (p.48-49). The low rating of the Chinese medium of planning may have made the task more “mentally” difficult and hence, weakened performance.

That aside, everyone had 10 minutes to plan and that 10 minute time in the English Task simply provided more time for the participants to do the task. When the participants planned in English, the proposer first of all retrieved the ideas from long-term memory and passed it to the translator to convert the ideas into strings of language already with appropriate word order and grammar. The reviser process was still present, but before the main writing task, the revision process should have completed as the participants had already decided what ideas to use and what not to use. The planning time before the main writing task is similar to what Skehan and Foster (1999) named as “planning-as-rehearsal”, in which “time made available could be allocated to a prediction of what language and content would be needed to complete a task and the attempt to mobilize such relevant

resources” (p.100). Gathercole & Baddeley (1993) proposed a similar view on this. The planning time offered the participants a chance to foresee what kind of ideas or language would be required for the task and to store them in working memory, waiting to be drawn on during the main writing task. In this way, when the participants had to do the real writing part, what they had to do was simply to retrieve what had been planned and write the ideas down in a more detailed way. In Ellis and Yuan (2004), they also studied the effect of pretask planning on fluency. Pretask planning was found to facilitate fluency because with pretask planning, there was less pressure on working memory during online processing since the participants had already organized information with a clear direction. Also, pretask planning was found to enhance L2 confidence, helping reduce the need to engage in extensive monitoring. Not much revision was necessary and the whole process became well-oiled. It is for this reason that some participants described writing as “an elaboration of planning” or “a miniature of planning”.

However, when the participants were asked to plan in Chinese, the whole writing process became much more complicated. The participants also retrieved information from long-term memory. During the planning process, participants reported that using Chinese to plan helped them “think of ideas” and “brainstorm” faster. They could also think of more ideas when they thought of the points in Chinese. This echoes the results found by Friedlander (1989) in a study of the effects of a first language on writing in English as a second language, in which Chinese was the L1 and English was the L2 of the participants.

It was found in the study that writers did plan more effectively when they planned in Chinese for the Chinese topic, *Qingming*. The participants also produced more details with longer and better plans. In one way, using Chinese to plan helped them to come up with ideas more readily, saving them time. On the other hand, however, there were other factors which took up their time. For example, participants reported that it took them longer to write down Chinese words due to the complexity of characters. Most of the Hong Kong students wrote in traditional characters which took them even longer. For the same token, when learners are writing in Chinese, it may take them twice or even three times the time when compared to writing in English. For instance, consider the word 'New Year'. It took the researcher 8 seconds to write the two Chinese words down, but only 2 and a half seconds for the English words. In this way, participants had to spend more time writing down their ideas in Chinese.

During the planning process, the writers were not supposed to use any English and in that way, they could not plan the sentence structures or vocabulary; everything had to be done during the actual writing time. What the participants could do during planning was to formulate ideas and arrange the order of these ideas. Therefore, given 15 minutes to write, participants had much more to do during the writing task than just to write. The translator did not only need to convert the ideas into language, but also needed to convert the language of planning, Chinese, into the target language, English. This progression would definitely take the participants more time to complete the translation process. The

translation from Chinese to English was regarded as the most difficult part of the whole writing process by most of the participants. Under the influence of some of the Chinese words, the participants had to think of the closest English words to replace the Chinese words and, most of the time, they found it hard to find the equivalents of the Chinese words. They spent a significant portion of their time searching for the right words in English.

Aside from the lengthier processing in the translator, there were also problems with the reviser. Since Chinese as a medium of planning facilitated the participants to think of ideas, some of them said that they “came out with more ideas than needed”.

Because of the process of going back and forth within the reviser, the number of dysfluencies, as a measure of fluency, was significantly different between the two tasks. One of the participants, in the Chinese Task, wrote the following things. The writer, after crossing the sentence, wrote another one which was nearly the same afterwards.

~~For Chinese, New Year is of the greatest importance among all the festivals.~~
Dear Sir/Madam,
Here is the text introducing Lunar New Year. I hope you will find it useful.
For Chinese, Lunar New Year is of the greatest importance among all the festivals.

Another writer also had this problem. The following text shows the writing in the Chinese Task. This participant had the highest number of dysfluencies. There are a couple of places where he wrote things which were exactly the same by first crossing that and then

writing it a second time. For example, he first started by writing down “Dear Sir/Madam” and then the title “Chinese New Year”. However, he crossed this out and started the essay again with “Dear Sir/Madam” with another way to start the letter. This showed that he was reformulating quite intensively.

~~Dear Sir/Madam,~~

~~Chinese New Year Festival~~

~~Chinese New Year is the most important festival~~

Dear Sir/Madam,

I am writing in ~~repte~~ reply to your letter concerning Chinese festival and I have written a short text to introduce Chinese New Year.

Chinese New Year

Chinese New Year is the most important festival in the Chinese cul-~~ture~~. It ~~usuatty~~ is usually in ~~mid Janu~~ ~~or~~ late-January to mid-February. People celebrate Chinese New Year because ~~Chinese New Year~~ signifies the ~~beginning of~~ another year and a new start. People tend to ~~It is~~ a time for family gatherings the whole family to gather together and also to re have reunions with relatives and close friends.

There are many act ~~act~~ Apart from

During those 10 days of ~~holiday~~, ~~the Chinese people will do~~ will engage in many activities. To start with we will ~~they will clean~~ There will be a large “cleaning up” of the houses ~~signifying a clean up of~~ finishing up of all the ~~activities~~ in the previous year. On the ~~mor~~ There will also be ~~large family gatherings~~ ~~mar~~ large flea market where there are lots of stalls for people to shop for things ~~needed~~ needed to celebrate the New ears, such as flowers, etc. There will also be family gathering where the whole family gathers together to have dinner and rejoice in a New Year ~~Ne Year~~.

The above reasons explain only some of the phenomena. In other cases, the participants simply ignored what had been planned in the Chinese Task. They planned everything during writing. Instead of having an extra 10 minutes for pre-task planning,

they only had 15 minutes for on-line planning and writing. As revealed by Ellis and Yuan (2003), the performance of the writing affected by pretask planning and online planning were reported to be different. Pretask planning was found to facilitate fluency, which is named as formulation in Kellogg's (1996) model, while online planning did not promote fluency but aided in monitoring. So, when compared to using English as the medium of planning, participants simply had less time to finish the task. The on-line planning, as traced by participants crossing out words or making revisions, increased the number of dysfluencies, creating a huge distinction between the two tasks.

The High Proficiency Group produced much more fluent language in the English-planning task, especially when it was measured by the number of dysfluencies. As revealed by the High Proficiency Group, when they planned, they usually used English to plan. They had previously developed a system of knowledge in English planning. Towell, Hawkins, Bazergui, (1996) stated that fast processing (in other words, fluency) can result from proceduralized knowledge. With this proceduralized knowledge in planning in English, the advanced learners could therefore produce language with higher fluency. On the other hand, when they were asked to plan in Chinese, something that they were not used to and did not even possess the knowledge in, they would take more time to think of a way to handle the task. For instance, one of the participants said that he had to "think of the tense to be used" and "think of how to organize sentence structure". The extra thinking exhausted a lot of their time during the task, explaining why they produced fewer syllables

per minute in the Chinese Task.

The Low Proficiency Group tended to produce more fluent language in the English Task. The difference between the plans in two tasks may explain why the Low Proficiency Group tended to produce more fluent language. In the study conducted by Friedlander (1989), participants produced shorter plans in the Chinese-related topic and they only wrote in short phrases. In this study, a similar situation was found. The participants in this group produced 66.2 words in the English Task and 56.6 words in the Chinese Task. However, due to the difference in Chinese and English, the number of words in the Chinese Task had to be adjusted. At CUHK, some of the courses allow students to write in either English or Chinese for assignments. Usually, students are required to write 2000 English words or 3500 Chinese words because, with the same concept, two Chinese words are required for every one in English. For example, “happy” is one word, but, in Chinese, it is 開心 (kei xin). When this formula is used in the present study, the number of words in average for the Chinese plans will be adjusted to only 32.3 words.

Not only did low proficiency learners produce shorter plans in Chinese, the plans were not as detailed as those in the English Task. The participants mainly wrote down single words in the Chinese plans. Most of them only wrote down the names of food or activities. In the English plans, however, participants mainly used short phrases rather than single words. Some of the plans were so detailed that every single point that was going to be included could be found in the plans. Unlike the Friedlander’s (1989) study when

participants could produce a longer text for the Chinese Task, the low proficiency learners here wrote less in the Chinese Task. With a longer plan, the participants might have retrieved faster what they had planned and might have connected everything together more efficiently. This is especially true if they had already written down most of the phrases during the planning stage. In the Chinese Task, however, the words written in the plans did not help them to free up much attentional resources. During the real writings, participants still had to think of the words, sentence structure and the organization of all their ideas. In this case, planning was not of much benefit. As a result, the Low Proficiency learners were more fluent in the English task in which they could base their writing on most of the plans. According to the correlation test, the number of words in planning in the English Task bears a positive correlation (.637) to the syllables per minute.

Uzawa & Cumming (1989) have examined the strategies used by Low Proficiency learners to deal with writing problems in L2. The two types of compensatory strategies are “keeping up the standard” and “lowering the standard”. In this study, it seems that the low proficiency learners chose to use the “lowering the standard” strategy. The features of this strategy include using simplified syntax, reducing the amount of information, “avoiding semantic elaboration” and even ignoring concerns for the audience (p.185). Planning and writing completely in Chinese can be challenging to Low Proficiency learners. These learners may need to utilize these strategies to cope with the English Task. While in the Chinese Task, they did not require the same assistance. With all these strategies, writers

should be able to write more fluently. This may explain why the participants still performed better in the English Task.

Like the reason stated in the previous part regarding the effects of English as the medium of planning on fluency, using English during planning extended the time available for the whole writing task. This kind of pretask planning was similar to that in Ellis and Yuan's (2004) study. As pretask planning can increase L2 confidence, it reduces the need to engage in extensive monitoring. Zimmerman (2000) also stated that the pretask planning can compensate for a lack of L2 proficiency. Where the number of revisions is reduced with effective pretask planning, writing better resembles L1 writing, eventually enhancing fluency.

5.2.2 The Effects of the Medium of Planning on Accuracy

Participants produced significantly more accurate language when they planned in English with accuracy measured by the number of correct verb forms. There are a several reasons which can explain this finding.

First of all, negative transfer of L1 when the participants did the Chinese Task is one possible explanation. Carson & Kuehn (1984) stated that knowledge in L1 syntax can influence the way learners organize L2 text. When learners used Chinese to plan, the syntax of Chinese affected the way they wrote in English. There were quite a number of errors in the writings of the participants who carried the features of Chinese for the task in

which learners planned in Chinese. The following examples show different kinds of errors found in the writing. With reference to Chinese, it is easier to understand why the participants wrote the sentences like so. In sentence 1, “have a walk” is not appropriate in the English context, but the Chinese translation will make sense. Sentence 2 and 3 wrongly used the word “introduce” because in Chinese, the words “introduce” and “recommend” can be written in the same way. The participants probably simply directly translated the words. Sentence 4 is a combination of English and Chinese syntax. As there are no past participles in Chinese, the participant simply put an infinitive there. The “cannot be missed” is grammatically correct, but there is a phrase exactly the same in Chinese (不容錯過) which shows that the participant was under the influence of Chinese. Sentences 5 to 7 are all about the inappropriate use of verbs. These verbs would be acceptable in Chinese sentences. Numbers 8 and 9 are also syntactically Chinese. The use of “to” was affected by the word “去” (which can mean go or to) in Chinese.

1. “People would go to *have a walk* before the first day of Chinese New Year”
2. “I would *introduce* them to go to Victoria Park *in* the day before Chinese New Year”
3. “I am writing to *introduce* some opinions concerning the Chinese New Year”
4. “The fireworks *show* in the harbor every year cannot be missed”
5. “Kids wear new clothes, accompanying their parents to *have* gatherings with relatives and friends”
6. “There are some taboos that Chinese shouldn’t *do*”
7. “The new things *allow* them to have a good and new year.
8. “They can receive red pocket, *which is having money in it*”
9. “They put Fai Chong which is a red paper *written with some wishes*”
10. “We should also not *to* wash or cut hair.”

Previous research shows that L1 can be a useful tool to some learners. Cohen, Brooks-Carson & Jacobs-Cassuto (2000) suggested that L1 is best used to plan and organize writing, while the target language is best for writing on the sentential level. When participants write under the effect of Chinese planning, it may affect accuracy since they choose to use Chinese on the sentential level rather than just for organizing ideas. Excessive dependence on L1 resources is not advantageous. Chenoweth & Hayes (2001) proposed that less confident L2 writers may “rely on L1 resources” (p.85). As revealed by the questionnaires, participants were more confident to plan in English than in Chinese. While performing the Chinese Task, the less confident learners probably relied a lot on L1. Friedlander (1989) stated in his paper that when writers tried to retrieve information from memory in their L1 and then had to translate into L2 before writing things down, this could lead to “an overload of the short-term memory” (p.110). The overloading of short-term memory may bring a heavier burden to cognitive loading, which, in turn, affects the accuracy of the participants. Kobayashi and Rinnert (1992) also claimed that “too much dependency on the first language may inhibit second-language writing performance” (p.243). This explains why the accuracy level was lower in the Chinese Task.

In numerous previous studies (Cumming, 2001; Grabe & Kaplan, 1996; McCutchen, 1996; Penningroth & Rosenberg, 1995), it has been found that when there is fluent access to words, phrases or grammatical structures, cognitive resources may be freed, enhancing the writing process. In this study, it is obvious that the participants, using English to plan,

had higher fluency as explained in the above session which probably lowered the cognitive processing load of the participants to focus on accuracy. However, the reason why they chose to focus on accuracy was unknown. It may have been related to the norm of what is regarded as a good piece of writing in Hong Kong. In school, students are taught grammar starting from primary school when the children are six or seven years of age. Grammar is so emphasized in the school curriculum, exemplified by how teachers rated writing. Being able to write grammatically was highlighted. In other words, accuracy was the main judging criterion. Under such a system, students are trained to write safely so as to maintain accuracy. This phenomenon is probably reflected here in this study as well.

Advanced learners tended to produce more accurate language in the English Task. Kobayashi and Rinnert (1992) stated that High Proficiency learners do not benefit much from the translation method and, worse still, the “frequency of errors that interfered with the writer’s intended meaning was significantly higher in their translations” (p.240). Using L1 became a hindrance for the High Proficiency Group, leading them to produce more errors during the Chinese Task. MacKay (1982) stated that when production of language is fully automatized, there tend to be fewer errors. This advantage could be found in the English Task when learners were more fluent with higher automaticity. They could have had more attentional resources available for them to deal with accuracy. This is consistent with what MacKay suggested and explained why this group had fewer errors in the English Task.

The Low Proficiency Group produced more accurate language, especially when it was measured by correct verb forms in the English Task. Based on the explanation above, the “lowering the standard” strategy also assisted the Low Proficiency Group in performing the task more accurately. When the participants attempted to use simplified syntax, reduce the amount of information and avoid semantic elaboration, they were sacrificing complexity to accuracy. In fact, there was a negative correlation (-.736) between one accuracy measure, Error-free clause, and one of the complexity measures, Ratio of Clause to T-unit. It indicated that the lower the complexity, the higher the accuracy.

The study by Kobayashi and Rinnert (1992) showed that the translation method helped the low proficiency learners to improve the quality of their compositions when compared to their writing performance in the direct writing task. This did not seem to be true in this study mainly because the translation method improved the quality of the participants’ content and style. These two aspects are not the main focus of the present study which is why the participants did not benefit much from using L1 as an extra resource.

5.2.3 The Effects of the Medium of Planning on Complexity

Participants produced similar syntactically-complex and lexically-varied language regardless of the medium of planning, but slightly more syntactically-varied language when using English as the medium of planning. The medium of planning did not affect the

complexity of the High Proficiency Group or the Low Proficiency Group. Limited availability of attentional resources may explain why complexity in this study was not affected by the medium of planning. According to Skehan and Foster (1999), “attentional limitations” mean that “to focus on one area may well be to reduce the probability that some other area can also be the target of the attention” (p.96). Tavakoli & Skehan (2005) confirmed this finding. Because of the limited attentional resources, paying attention to one area of performance may reduce the attention to another aspect. Improvement in one aspect may worsen the performance in another aspect. In a study by Skehan and Foster (1999), the effect of task structure on accuracy, fluency and complexity was examined. Personal tasks are defined as those that are based on information well-known by the participants. The two tasks in the present study belong to this task type as both required the participants to write something about their personal experience, namely, Chinese New Year experiences and the learning of English. Skehan and Foster (1999) predicted that this kind of task would facilitate fluency and accuracy, but not complexity. Both studies pointed in the direction that tasks with a clear macrostructure enhanced fluency and accuracy, but did not affect complexity.

The nature of both tasks may also affect the result of complexity. Tavakoli & Skehan (2005) stated that “if task draws upon familiar information, then, other things become equal, it is likely to yield a performance which is more accurate and fluent, but without any particular impact upon the complexity of the language which is used” (p.4-5). The tasks

used in this study are based on the personal experiences of the learners. Thus, they can be categorized as personal tasks. It is probable that because of the nature of the tasks, the complexity was not affected.

5.3 Comparison of the Two Proficiency Groups On Each Task

Question 4 seeks to determine which proficiency group would perform better in the three aspects of performance, fluency, accuracy and complexity under matched planning conditions, either using English or Chinese to plan.

5.3.1 Two Groups Performing in English Task

When both groups were asked to plan in English, the High Proficiency Group produced more fluent language than the Low Proficiency Group. The High Proficiency Group also produced much more accurate language, especially when measured by error-free clause ($p=.007$), but the performance was similar when measured by correct verb forms.

Once again, these findings can be explained with the help of the translator and the reviser. In Chenoweth & Hayes (2001), fluency was determined to be related to linguistic experience. High Proficiency learners are supposed to have more linguistic experience when compared to the Low Proficiency learners. The linguistic difference is quite big due to the different backgrounds of the two Proficiency Groups. As the participants from the

High Proficiency Group are all English Majors at the Chinese University of Hong Kong, where three languages, Cantonese, Mandarin and English, are used as the medium of instruction. English Majors all used English during classes and tutorials while the participants from the Low Proficiency Groups may attend lectures with three different languages as they come from other departments in which there are many Mainland and local professors. Added to this is the fact that English Majors learn English as the main subjects which include both Linguistic and Literature. The English Majors recruited in the present study were all Year 1 students, but the experiment took place nearly at the end of the second semester. Hence, the difference of linguistic experience between the High and Low Proficiency Group may have been present.

Difference in linguistic experience has different effects on the translator and reviser. Since the translator and reviser interact, it may affect both fluency and complexity simultaneously. With more linguistic experience, according to the study by Chenoweth & Hayes (2001), "the capacity of the translator to handle complex language" may be enlarged by "increasing the lexicon of words and stock phrases, or by increasing facility with more complex grammatical forms" (p.94). With more linguistic experience, the translation process can be "fully proceduralized" which may help the translator propose more grammatical strings (Chenoweth & Hayes, 2001, p.86). This is the effect on the translator. At the same time, there is a change in the revision performance. The advantage of having more linguistic experience, according to McCutchen, Covill, Hoyne, & Mildes (1994) is

that more cognitive resources may be freed to other aspects of writing when the lexical retrieval process of the translator becomes more efficient. With more cognitive resources, the translator can “apply more fully the writer’s sense of the grammar while proposing a string of language” (Chenoweth & Hayes, 2001, p.94). This explains why the High Proficiency Group could be more fluent. They revised less which made the whole language production process more efficient and smooth. Their language was also more accurate due to the fact that relatively more language experience facilitates the translator to be “more grammatically accurate while proposing a string of language and thus less frequently generates language that violates the writers’ own sense of the grammar” (Chenoweth & Hayes, 2001, p.94).

On the other hand, with less linguistic experience, the translator may need more cognitive effort and may generate more ungrammatical strings. Also, it may have taken the participants more effort for lexical retrieval and the lack of cognitive resources may have hindered the translator to fully apply the grammar. Hence, more revision was necessary and this modification slows down the production of language, decreasing fluency by increasing the number of dysfluencies as indicated by participants’ linguistic reformulations. Concurrently, accuracy was also hindered.

5.3.2 Two groups performing in Chinese Task

However, when both the High Proficiency Group and Low Proficiency Group used

Chinese to plan, the Low Proficiency Group produced more syllables per minute and exhibited a lower number of dysfluencies. Shortly, they were more fluent than the High Proficiency Group. When a person writes in his or her first language, there are several things involved, including thinking of ideas, drafting, revising the writing, choosing the appropriate words and editing the writing. Like L1 writing, L2 learners have to go through all the previous stages. Added to this is the extra burden of second language processing. To High Proficiency L2 learners, the problems are not as serious as is their sufficiency of L2 automaticity and knowledge for planning while still being able to sustain the whole writing process in L2 (Jones & Tetroe, 1987). Uzawa and Cumming(1989) suggested that requiring students of low proficiency to think through the L2 may lead to weaker writings. Two other studies, by Kobayashi and Rinnert (1992) and Brooks (1996), also speculated that the low proficiency learners, when trying to think directly in L2 during writing, may produce writings with a lower standard. This proposal can explain why the Low Proficiency Group was less fluent than the High Proficiency Group when both of them planned in English.

The Lower Proficiency Group, however, to compensate for their lack of proficiency, may have relied on L1 even during the writing process to sustain the writing process as well as preventing a complete breakdown in language (Cumming, 1989; Raimes, 1985; Uzawa & Cumming, 1989). In the present study, the participants had a chance to plan in Chinese for one of the tasks. For Low Proficiency Learners, having a chance to plan in Chinese acted as a compensation strategy which broke the writing task down so that the L2

learners could focus on a smaller part of the task and, hence, reduced the cognitive burden. In fact, in a number of previous studies (Cohen & Brooks-Carson, 2001; Cumming, 1989; Jones & Tetroe, 1987; Raimes, 1985; Uzawa & Cumming, 1989), researchers have examined the compensation strategy of some lower proficiency L2 writers. Some learners first wrote a draft in L1 and then translated them during the real writing tasks. Some writers used L1 for brainstorming and organizing ideas before generating the actual text in L2. In this way, some learners whose L2 proficiency was not high enough showed improvements. In this study, some participants in the Low Proficiency Group reported that they found planning in Chinese helped them in “brainstorming”, “thinking of ideas more easily” and “structuring the writing”, consistent with the findings by Lay’s (1982) study about L1 being beneficial for generating ideas. However, the High Proficiency Group reported that having subjects plan in Chinese made it “more difficult to organize (ideas)”, “to choose the words” and “write down ideas in systematic way”. Based on such differences, it seems that the Low Proficiency Group took the opportunity to plan in Chinese as a compensation strategy that helped them to write more fluently, whereas the High Proficiency Group took it as a hindrance that blocked their normal L2 writing process. The effect of Chinese planning on High Proficiency learners was probably heightened as they were not used to planning in Chinese and now they had to mix both the L1 and L2 writing processes together. In Kobayashi and Rinnert’s (1992) study, they discovered that when High Proficiency learners first composed and then translated, they produced “more

awkward language forms and problems in text cohesion” (p.223). Using L1 during writing, to advanced learners, causes extra problems for L2 writing. This explained why the Low Proficiency Group could outperform the High Proficiency Group in the aspect of fluency when both of them had to plan in Chinese.

When both groups planned in Chinese, the High Proficiency Group still produced more accurate language, especially when measured by the number of correct verb forms. Because of the proficiency difference, the High Proficiency Group was still superior. Even though using Chinese to plan tended to lower the fluency of the advanced learners, their high proficiency of L2 was not weakened by the Chinese elements. Because of the general greater cognitive resources available for the task due to high proficiency, they may still have had enough resources to deal with accuracy. In fact, a correlation test was done on the High Proficiency Group and the result showed there was a positive correlation (.748, which is significant at the 0.01 level) between the number of correctly used verb forms in the Chinese Task and in the English Task. Participants from the High Proficiency Group produced accurate language in both tasks. In the Low Proficiency Group, however, there was no such correlation.

The effects of the medium of planning were not significant on complexity in either task. Both groups produce similarly syntactically-complex and lexically-varied language regardless of the medium of planning. The High Proficiency Group tended to produce more syntactically-varied language regardless of the medium of planning.

In the past research which examined translation method and direct writing, it was suggested that the translation method could enhance syntactic complexity and the breadth of expression because writers usually tried to use “a broader vocabulary and set of phrases, consistent with L1 expression” (Cohen, Brooks-Carson & Jacobs-Cassuto, 2000, p.12). However, the differences between L1 and L2 may reduce the positive effects of the translation method. Writers whose L1 is similar to the written L2 may have a greater effect. Chinese and English are not similar at all. To start, Chinese can be claimed as a language without morphology. Unlike English, Chinese users do not have to change the word form for tenses, case or number. Chinese is a pictorial language. It may be due to the major difference between the L1, Chinese, and L2, English, which caused the result which, no matter if the learners used direct writings (similar to the English Task in this study) or translation method (similar to the Chinese Task in the study), complexity was affected.

5.4 Chapter Summary

This chapter presented findings and discussion based on the results presented in the previous chapter. In each sub-session, the findings were restated, interpreted and explained. It has been found that the medium of planning did have an effect on written performance, mainly on fluency and accuracy, but not on complexity. The High Proficiency Group, due to the higher language proficiency, performed better than the Low Proficiency Group in general. Surprisingly, they were not as fluent as the Low Proficiency Group when they

were forced to plan in Chinese. It can be concluded that English is still a favorable medium of planning for ESL learners.

5.2 Introduction

This chapter included the conclusions of the study, the implications for L2L teachers, limitations and suggestions for further research. The implications of the study focused on stating its rationale, research questions, methodology, and findings. The chapter also attempted to offer suggestions for L2L teachers on how to help students improve writing accuracy. The limitations and recommendations are also included in this chapter.

5.2.1 Introduction of the Study

There are many prior studies which examined a positive role for writing performance (L2) and a research task planning was found to be beneficial to language acquisition. However, most of planning tasks in helping L2L learners to write with L2L were kinds of planning were found to affect language performance in writing. Thus, the planning was an essential factor. Even though most studies did not try to address planning and its effect on writing, however, the role of planning in writing performance was not clearly understood.

The present study attempted to investigate the role of planning in writing performance. The study was designed to investigate the role of planning in writing performance. The study was designed to investigate the role of planning in writing performance.

CHAPTER SIX

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter includes the conclusion of the study, the implications for EFL teachers, limitations and suggestions for further research. The conclusion of the study summarizes by stating its rationale, research questions, methodology and findings. The implications attempt to offer suggestions for EFL teachers on how to help students improve fluency and accuracy. The limitations and recommendations are also included for further research.

6.2 Conclusion of the Study

There are many prior studies which examined planning and language performance in L2 in the research field. Planning was found to be favorable to language production. However, what kind of planning is best in helping EFL learners better write? Different kinds of planning were found to affect language performance in unique ways. Time for planning was an additional factor. Even different kinds of tasks played a role in affecting planning and language performance. However, the role of the medium of planning in written performance has not been thoroughly examined.

The present study attempted to clarify if there were any effects of the medium of planning, either use of L1 or L2, on the written performance of EFL learners. Three aspects

of performance were examined: fluency, accuracy and complexity. The effects were assumed to vary with different proficiency levels. The performances of the High Proficiency Group and Low Proficiency Group were compared to determine if any differences were significant. The present study also sought to define the effects of the medium of planning on performance when two groups worked under the same planning condition.

High proficiency learners and low proficiency learners were recruited to take part in an experiment in which they had to perform two tasks. They used Chinese and English as the medium of planning respectively in the two tasks and then wrote two English essays. They were required to fill in some reflective questionnaires immediately following each stage to capture their planning processes and opinions about the subsequent tasks. Some participants were randomly selected for interviews for qualitative data. With both quantitative and qualitative sources of data, the study enabled the researcher to form a clearer picture about the role of the medium of planning in L2 writing.

The major findings of the study are summarized as follows:

Effects on Fluency

1. Participants produced more fluent language when they planned in English. The difference was significant when it was measured by the number of dysfluencies. English as the medium of planning enhanced the fluency of EFL learners as indicated by one measure.

2. The High Proficiency Group produced more fluent language during the English-planning task when the performance was measured by the number of dysfluencies. English as the medium of planning facilitated the fluency of high proficiency EFL learners as indicated by one measure.
3. The Low Proficiency Group tended to produce more fluent language in the English Task. The difference, however, was not significant. English as the medium of planning may enhance fluency of low proficiency EFL learners.

Effects on Accuracy

4. Participants produced significantly more accurate language when they planned in English with accuracy measured by the number of correct verb forms. English, as the medium of planning, enhanced accuracy of EFL learners as indicated by one measure.
5. Advanced learners tended to produce more accurate language in the task with English planning. The insignificant result suggested that English as the medium of planning may facilitate accuracy of high proficiency EFL learners.
6. Low proficiency learners produced more accurate language in the English-planning task, especially when it was measured by number of correct verb forms. English as the medium of planning can enhance the accuracy of low proficiency EFL learners as indicated by one measure.

Effects on Complexity

7. Participants produced similarly syntactically-complex and lexically-varied language

regardless of the medium of planning, but produced slightly more syntactically-varied language when using English as the medium of planning. The results in the two proficiency groups correspond to this finding. Medium of planning does not affect complexity for EFL learners.

Performance of the Two Groups in each Task

8. The High Proficiency Group produced more fluent and accurate language when both groups planned in English as indicated by some measures.
9. The Low Proficiency Group, however, was more fluent than the High Proficiency Group when both of them planned in Chinese as indicated by one measure.
10. The performance measure of writing was similar regardless of the medium of planning.

6.3 Implications for Teachers

The results of the study suggested that English is a better medium of planning as it helps enhance fluency and accuracy. However, the role of English in the writing process is not ideal in every stage. The role of L1 should not be neglected completely. The findings in this study have some pedagogical implications for both EFL learners and teachers. The implications will be discussed in the following section.

All the participants took writing courses prior to experimentation. However, participants who took part in the interview all reported that they did not learn much in their writing class aside from things like mind-mapping and simple formatting. In secondary

school, most students were never taught how to plan or how to improve writing. In writing class, they were just given a topic and tried to finish the writings during class time. After the teachers read the essays, they would be asked to copy the whole essay one more time with appropriate corrections. Clearly, there are grounds for teachers to more actively teach students how to improve writing.

Instead of teaching everything at once, teachers may consider teaching a few techniques at a time. Because of limited cognitive resources, it is impossible for students to focus on every aspect of writing simultaneously. As improvements to each component of the writing system can improve overall written performance, teachers may consider the following advice to help students cultivate each.

6.3.1 Ways to Improve Fluency

As the topic may also affect the way that students plan, teachers should choose the writing topic carefully. Using topics related to L1 experience may not be desirable at an early stage of L2 acquisition. It would benefit teachers to choose topics that are related to information that students have acquired the L2. Once the topic is set, teachers can work on helping students to improve fluency.

In order to help improve the efficiency of the cognitive proposer, teachers notify students as to the importance of pretask planning. Students need to plan not only the content, but the organization of the ideas and also the language. However, it is not a good

idea to ask students to plan too much because, as the results of the present study show, planning too much may decrease fluency. Teachers may direct students to write down as many things as possible during brainstorming. In fact, if time allows, this method may help students generate more ideas. However, students need to decide what to include and what to omit before real writing because, if they decide what to write during online planning, it will take up a lot of the cognitive resources, decreasing the efficiency of the whole writing process. The choice of language in generating ideas can have varying results. If the purpose is to generate as many ideas as possible, low proficiency students should think in L1 while high proficiency group may use L2. Certainly, it would be ideal to use L2 in generating ideas for L2 writing. L1 should be used as the last resource.

Once students have developed a system for generating ideas, teachers can then focus on teaching them how to organize their ideas. Teaching students basic structure of writing is helpful. Some students have never even heard of what a “thesis statement” or “topic sentences” are when they graduate from university. In fact, teaching them how to plan can be separated from teaching them how to write. When students know how to organize ideas, they possess the ability to write a plan for real writing. The plans should all be in English as it is found that Chinese elements may hinder fluency and accuracy. The plans may also consist of more than just the writing down words, especially for low proficiency learners who need more than word cues to be able to write fluently during the actual writing.

During the early stages, teachers should not encourage students to include difficult

concepts and ideas into their writing. The complexity of language should also be put aside. This is what Uzawa & Cumming (1989) names as the “lowering the standard” strategy for low proficiency learners. This strategy involves simplifying syntax, reducing the amount of information and avoiding semantic elaboration. Students should only focus on how to write fluently, even to the point of degrading accuracy. With only one aim in mind, students will be able to develop fluency. Teachers should bear in mind that in this stage, they should not ask students to correct grammatical mistakes extensively. This will distract them and lead them to focus excessively on accuracy. Finally, there is one important reminder: students should be reminded to think and use English only.

6.3.2 Ways to Improve Accuracy

As this study show, when the production process is fully automatized, there will be fewer output errors. Once fluency is promoted, teachers can advance to the next stage, accuracy. To be accurate, learners should focus on English at the sentential level. It was found in this study that the Chinese element influenced learners to write some English with Chinese syntax. Several students mentioned that they did not know enough vocabulary to write down everything in English. In this way, it is important for teachers to develop the strategic competence of students. It is acceptable that students do not know the exact word, but with strategic competence, they can express the same concept with more words.

In fact, the teaching of accuracy cannot be separated from grammatical learning.

Students need to learn how to write with correct grammar. This study does not focus on how to teach grammar. However, teachers should bear in mind not to overload the students' processing load by asking them to improve everything at one time. Accuracy can also be achieved when writers revise their writing. They also should not only focus on accuracy as it may discourage students from writing fluently or even complexly.

6.4 Limitations and Recommendations

There are no perfect studies. Every study has its own limitations and this is no exception. Recommendations will be suggested for further research.

The sample size is often a problem in research. This study was of small scale with 20 subjects only. With such a small number of subjects, it would be difficult to reach statistical significance. This explains why many of the findings may not be statistically significant. However, the findings may still show the trend of the phenomenon. For this reason, further research with more participants would be favorable. More generalization can also be made with a larger pool of subjects.

The participants were only one group of university students with similar backgrounds. The internal validity may have been enhanced, yet the external validity may have suffered. It would be interesting to conduct further research with different types of participants. Participants with different L1s may yield interesting findings. For instance, if the L1 and L2 had come from the same linguistic family, would the effect of the medium of planning

be minimized? Different age groups and proficiency levels may also affect the degree of the influence of medium of planning. To be more specific, the proficiency groups could also be subcategorized as advanced, upper-intermediate, intermediate, lower-intermediate and poor. Instead of using only two groups, multiple groups could be added.

There was only one kind of task in the whole study. Thus, the findings generated can only explain part of the picture. It is possible that with other task types, the findings could be totally different, especially in the aspect of complexity, which was unaffected by the medium of planning in our task type. Further research should be carried out with other task types such as problem-solving tasks and narrative tasks.

As for the methodological problem, this study only used two measures for fluency, two measures for accuracy and three measures for complexity. Not every measure showed high significance. Because of the small number of participants, a factor analysis among all these measures would not be fruitful. Further research should attempt to determine if different measures show varying results and how those measures interact with each other.

6.5 Chapter Summary

This chapter has summarized the findings of the study and provided useful pedagogical implications for EFL teachers. Limitations were discussed with corresponding recommendations.

To conclude, there is no definite answer for the question of which medium of

planning is most effective. L1 and L2 have separate functions at different stages of planning and linguistic development. Ideally, using the L2 is always favorable.

With only a small sample size, the findings need to be considered and interpreted with caution. Further research is necessary to clarify the effects of the medium of planning.

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Appendix I

Participant's information

This questionnaire is designed to investigate the planning process of Chinese EFL learners. The information provided will be of great help and will be treated confidentially. Your name is for sorting data and will be kept anonymous afterwards.

1. Name: _____
2. Gender
 Male Female
3. Study field (Please write the department on the line provided)
 Faculty of Arts _____
 Faculty of Engineering _____
 Faculty of Business _____
 Faculty of Science _____
 Faculty of Social Science _____
 Faculty of Education _____
 Faculty of Medicine _____
4. Additional languages
 Mandarin
 Japanese
 French
 Spanish
 German
 Others: _____
5. Grade of English in HKCEE
 A
 B
 C
 D
 E
6. Grade of the Writing paper in HKCEE
 A
 B
 C
 D
 E

7. Grade of English in HKAL

- A
- B
- C
- D
- E

8. Grade of the Writing paper in HKAL

- A
- B
- C
- D
- E

9. How would you describe your English proficiency?

- Advanced
- Upper-intermediate
- Intermediate
- Lower-intermediate
- Poor

10. Have you taken any writing courses before in the previous semester?

- Yes (Name of the course _____)
- No

11. Do you usually write an outline before actual writing in English?

- Yes
- No

12. If the answer to 11 is yes, what language do you use to write an outline?

- English
- Cantonese
- A combination of both
- Others (_____)

INFORMED CONSENT FORM

Project Title: The effects of the medium of planning on the written performance in an EFL context

Investigator: Chan Ying Shan

The purpose of this investigation is to explore the effect of the medium of planning on your written performance of English

2. As a participant, you will respond to questions regarding the process of writing
3. There are no anticipated risks, either physical or psychological, involved with participation in this investigation.
4. As a participant, you are a volunteer and therefore have the right to withdraw from the study at any time. Such withdrawal will not jeopardize your standing at the College in any way.
5. All information obtained from the measures used in this investigation will be kept completely confidential. Individual names will not be used for identification purposes in any place.
6. Participants are entitled to read reports of the research in which they participate. Reports will be available upon request from the principal investigator.
7. Any questions, complaints, or concerns you may have can be directed to the principal investigator. Chan Ying Shan at ericacys@yahoo.com.hk

Please detach this part of the Informed Consent Form and retain it for your records. If you are willing to participate in this investigation, please sign the statement below and return the lower portion of this form to the investigator.

The effects of the medium of planning on the written performance in an EFL context

PARTICIPANT'S INFORMED CONSENT STATEMENT

I have read the above description of this investigation and am aware of my rights. I voluntarily agree to participate in this investigation.

Participant's Name (printed)

Date

Participant's Signature

Appendix III

Name: _____

Your answers to any or all questions will be treated with the strictest confidence. Although we ask for your name on the cover page, we do so only because we must be able to associate the answers to this questionnaire with those of other questionnaires. It is important for you to know, however, that before the questionnaires are examined, your questionnaires will be numbered, the same number will be put on the section containing your name, and then that section will be removed. By following a similar procedure, we will be able to match the questionnaires through matching numbers and avoid having to associate your name directly with the questionnaire. Information identifying you will not be disclosed under any circumstances.

Second Language Writing Study

These tasks and questionnaires are designed to investigate the planning process of Chinese learners of English. The information provided will be of great help and will be treated confidentially. This is not a test, so there are no "right" or "wrong answers. Please give your answers sincerely as only this will guarantee the success of the investigation. Thank you very much for your help.

I. Writing Task

In this task, you will have to write a letter replying the Office of Student Affairs. Please follow the instructions. Here is the letter.

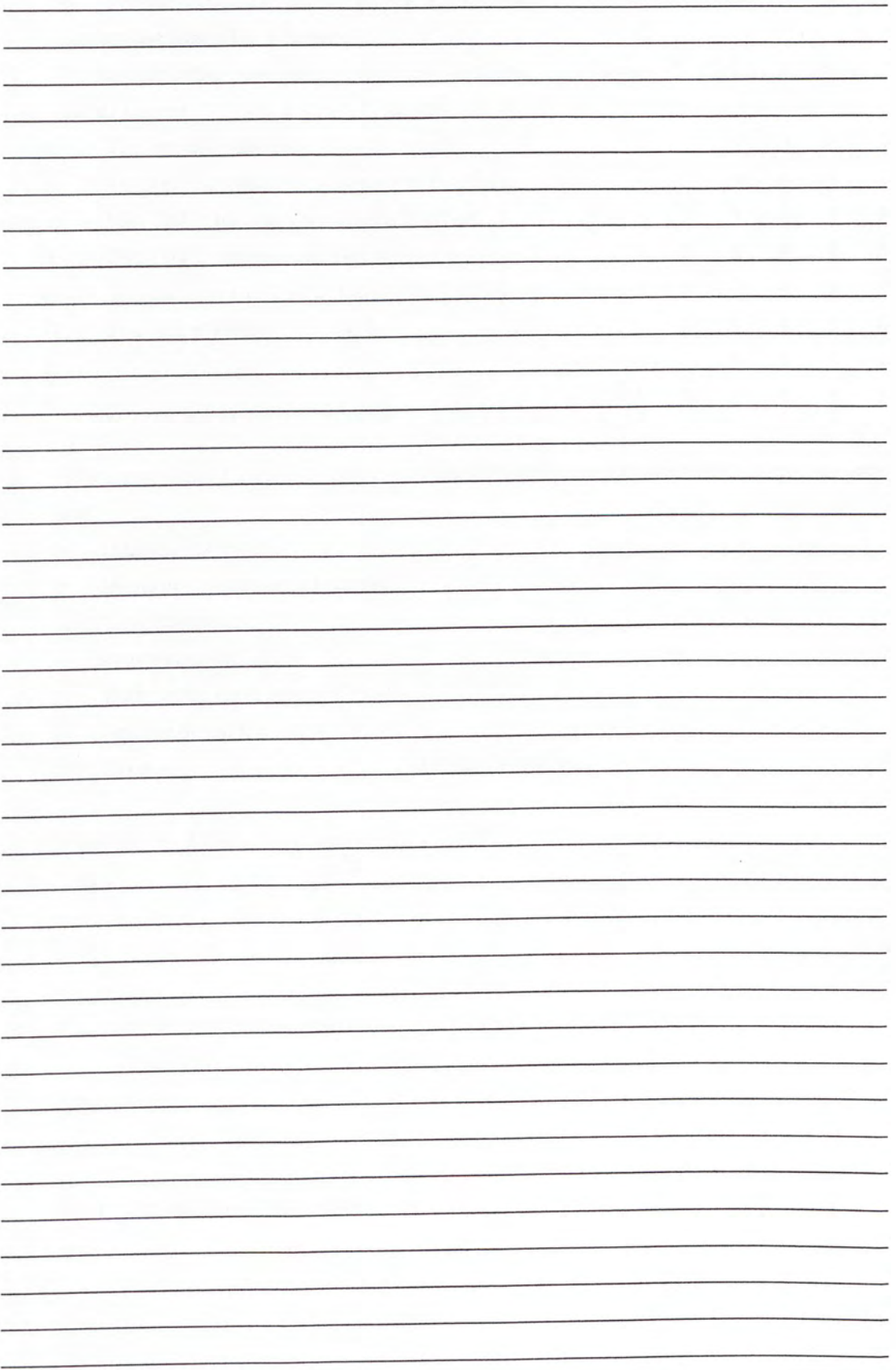
Dear Students,

In Hong Kong, we have a lot of different festivals. Of all the festivals, Chinese New Year is one of the most important to Chinese. As a good host of Hong Kong, we are going to gather some information about Chinese festivals to present to the exchange students who are going to come next semester. Could you kindly write a short text introducing this festival?

We would gather the information written by students and make it a booklet. Thank you for your help.

Office of Student Affairs

A. Now, you have ten minutes to plan what you want to write. Use the following space and write an outline before you start writing the real text. While you are planning, please use *all English*. Please also write down everything that comes to your mind. This part is necessary and you may write down sentences, phrases or even words all in English.



B. Please complete the following questionnaires concerning what you just did during the planning process.

1. Please circle the number (1 strongly disagree, 2 disagree, 3 slightly disagree, 4 slightly agree, 5 agree, 6 strongly agree)

a.	You are confident planning in English.	1	2	3	4	5	6
b.	You feel comfortable planning in English.	1	2	3	4	5	6
c.	You find it natural planning in English.	1	2	3	4	5	6
d.	You find it easy to plan in English.	1	2	3	4	5	6
e.	You are able to plan everything in English.	1	2	3	4	5	6
f.	You like planning in English.	1	2	3	4	5	6
g.	_____	1	2	3	4	5	6
h.	_____	1	2	3	4	5	6

2. How much time (how may minutes/ seconds) did you approximately spend on each part

- a. thinking of ideas _____
- b. thinking of what words to use _____
- c. brainstorming _____
- d. organizing the ideas _____
- e. finding the right words/phrases _____
- f. writing down the ideas _____
- g. Others _____ (Please specify) _____

3. What are the difficulties planning in English?

4. What do you think are the advantages of planning in English?

5. What other opinions do you have on planning in English?

D. Please complete the questionnaires concerning what you just did during writing.

1. Please circle the number (1 strongly disagree, 2 disagree, 3 slightly disagree, 4 slightly agree, 5 agree, 6 strongly agree)

- | | | | | | | |
|--|---|---|---|---|---|---|
| a. You find planning in English helpful to your English writing. | 1 | 2 | 3 | 4 | 5 | 6 |
| b. Planning in English help you write faster. | 1 | 2 | 3 | 4 | 5 | 6 |
| c. Planning in English help you write more. | 1 | 2 | 3 | 4 | 5 | 6 |
| d. Planning in English help you vary your sentence structure. | 1 | 2 | 3 | 4 | 5 | 6 |
| e. Planning in English help you vary your vocabulary choice. | 1 | 2 | 3 | 4 | 5 | 6 |
| f. You like planning in English overall. | 1 | 2 | 3 | 4 | 5 | 6 |
| g. _____ | 1 | 2 | 3 | 4 | 5 | 6 |
| h. _____ | 1 | 2 | 3 | 4 | 5 | 6 |

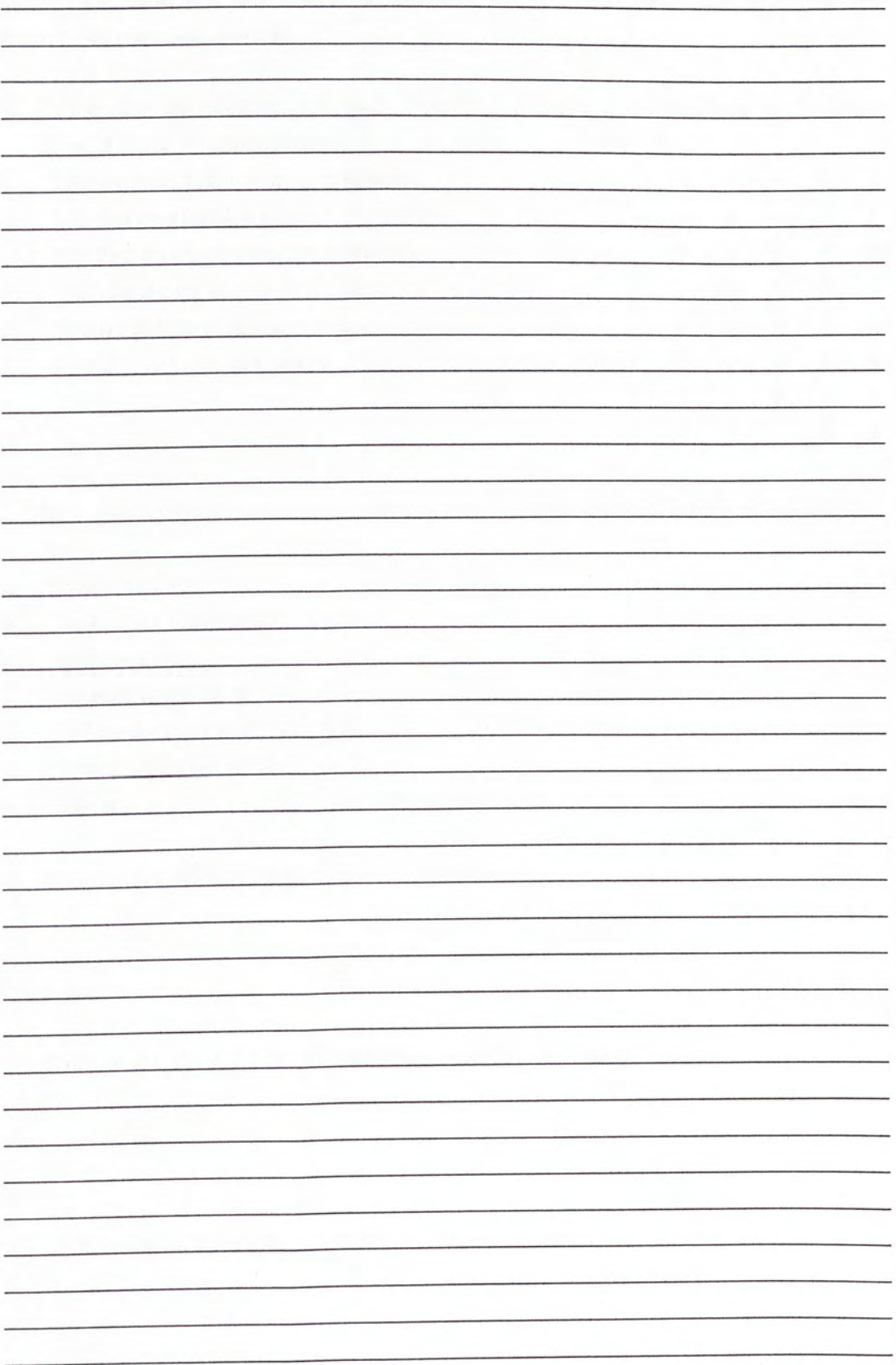
2. How much time (how may minutes/ seconds) did you approximately spend on each part

- a. thinking of ideas _____
- b. thinking of what words to use _____
- c. organizing the ideas _____
- d. finding the right words/phrases _____
- e. writing down the ideas _____
- f. Others _____ (Please specify) _____

3. In what ways does planning in English help you write?

4. In what ways does planning hinder your English writing?

5. What other opinions do you have on planning in English and writing in English?



B. Please complete the following questionnaires concerning what you just did during the planning process.

1. Please circle the number (1 strongly disagree, 2 disagree, 3 slightly disagree, 4 slightly agree, 5 agree, 6 strongly agree)

a. You are confident planning in Chinese.	1	2	3	4	5	6
b. You feel comfortable planning in Chinese.	1	2	3	4	5	6
c. You find it natural planning in Chinese.	1	2	3	4	5	6
d. You find it easy to plan in Chinese.	1	2	3	4	5	6
e. You are able to plan everything in Chinese.	1	2	3	4	5	6
f. You like planning in Chinese.	1	2	3	4	5	6
g. _____	1	2	3	4	5	6
h. _____	1	2	3	4	5	6

2. How much time (how may minutes/ seconds) did you approximately spend on each part

- a. thinking of ideas _____
- b. thinking of what words to use _____
- c. brainstorming _____
- d. organizing the ideas _____
- e. finding the right words/phrases _____
- f. writing down the ideas _____
- g. Others _____ (Please specify) _____

3. What are the difficulties planning in Chinese?

4. What do you think are the advantages of planning in Chinese?

5. What other opinions do you have on planning in Chinese?

E. Please complete the questionnaires concerning what you just did during writing.

1. Please circle the number (1 strongly disagree, 2 disagree, 3 slightly disagree, 4 slightly agree, 5 agree, 6 strongly agree)

- | | | | | | | |
|--|---|---|---|---|---|---|
| a. You find planning in Chinese helpful to your English writing. | 1 | 2 | 3 | 4 | 5 | 6 |
| b. Planning in Chinese help you write faster. | 1 | 2 | 3 | 4 | 5 | 6 |
| c. Planning in Chinese help you write more. | 1 | 2 | 3 | 4 | 5 | 6 |
| d. Planning in Chinese help you vary your sentence structure. | 1 | 2 | 3 | 4 | 5 | 6 |
| e. Planning in Chinese help you vary your vocabulary choice. | 1 | 2 | 3 | 4 | 5 | 6 |
| f. You like planning in Chinese overall. | 1 | 2 | 3 | 4 | 5 | 6 |
| g. _____ | 1 | 2 | 3 | 4 | 5 | 6 |
| h. _____ | 1 | 2 | 3 | 4 | 5 | 6 |


How much time (how may minutes/ seconds) did you approximately spend on each part

- | | |
|------------------------------------|-------|
| a. thinking of ideas | _____ |
| b. thinking of what words to use | _____ |
| c. organizing the ideas | _____ |
| d. finding the right words/phrases | _____ |
| e. writing down the ideas | _____ |
| f. Others _____ (Please specify) | _____ |

In what ways does planning in Chinese help you write?

In what ways does planning in Chinese hinder your English writing?

What other opinions do you have on planning in Chinese and writing in English?

Thank you very much 

Appendix IV

1. Do you usually plan before writing?
2. What language do you use to plan?
3. How do you like planning? Do you see it as positive or negative? How? Why?
4. Do you have any previous training for planning? Did you learn that from any teachers or courses?
5. What do you think is the relationship between writing and planning?
6. Do you find it hard to plan in English? Why?
7. Do you find it hard to plan in Chinese? Why?
8. What do you do during planning? Time distribution.
9. What is the most difficult part for planning?
10. What's your opinion about planning in Chinese?
11. What's your opinion about planning in English?
12. How does planning in Chinese affect your performance?
13. How does planning in English affect your performance?

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