THE EFFECTS OF PLANNING CONDITIONS ON CHINESE PRIMARY SCHOOL ESL PUPILS' NARRATIVE WRITING

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ABSTRACT

The present study investigates how 78 pupils from a Chinese primary school in the state of Selangor performed differently in their second language writing under different planning conditions in terms of the language complexity, accuracy and fluency (CAF). Besides, the study also aims to examine the pupils' perceptions of their own performance under different planning conditions and how these perceptions are related to their performance. Drawing from Kellogg's (1996) model as the theoretical framework, this study also seeks to describe how pupils perform their narrative writing task mentally. The pupils were divided into three planning condition groups:1) pre-task planning, 2) on-line planning and 3) no planning groups. A variety of data collection methods had been employed in order to obtain pupils' data. These methods include the collection of pupils' written task and pupils' planning sheets, questionnaire surveys and interview. The results of the study reveal that pupils' performance was not significantly affected by the planning conditions except for the effect of pre-task planning on pupils' written fluency. The results discovered from the present study differ greatly from many of the previous studies which were mainly carried out on adult writers. The present study also discovers that pupils' perceptions partially influence their performance. The reasons of such contradictions are discussed in the discussion section in this article.

Keywords: second language writing, complexity, accuracy, fluency, Kellogg's (1996) model.

ABSTRAK

Kajian ini mengkaji bagaimana 78 orang murid dari sebuah sekolah jenis kebangsaan Cina di Negeri Selangor menghasilkan penulisan Bahasa Inggeris sebagai bahasa kedua yang berbeza prestasi di dalam keadaan perancangan penulisan yang berbeza. Prestasi mereka dinilai berdasarkan kerumitan, ketepatan dan kefasihan bahasa (CAF). Selain itu, kajian ini menyelidik persepsi murid-murid terhadap prestasi mereka dalam keadaan perancangan yang berbeza serta kesannya terhadap prestasi mereka dalam penulisan. Dengan menggunakan model Kellogg (1996) sebagai kerangka teoretikal, kajian ini juga dijalankan untuk menjelaskan operasi mental yang ada pada murid-murid semasa menulis. Dalam kajian ini, murid-murid telah dibahagikan kepada tiga kumpulan: 1) kumpulan perancangan pra-tugasan, 2) kumpulan perancangan semasa tugasan dan 3) kumpulan kawalan. Kajian ini juga menggunakan pelbagai kaedah pengumpulan data, di antaranya seperti pengumpulan penulisan murid dan kertas perancangan murid, soal selidik dan temu bual. Keputusan kajian ini menunjukkan bahawa prestasi murid tidak terjejas dengan keadaan perancangan yang dialami, kecuali bagi kesan perancangan pratugasan terhadap kefasihan penulisan murid. Keputusan yang diperoleh daripada kajian ini juga berbeza dengan keputusan yang diperoleh daripada kajian masa lampau, di mana kebanyakan kajian tersebut dijalankan dalam kalangan orang dewasa. Kajian ini juga mendapati bahawa persepsi murid juga mempengaruhi sebahagian daripada prestasi murid. Sebab-sebab yang menyebabkan percanggahan dapatan kajian ini dengan kajian lampau dibincang dalam bab perbincangan dalam desertasi ini.

Kata Kunci: penulisan bahasa kedua, kerumitan, ketepatan, kefasihan, model Kellogg (1996)

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LIST OF ABBREVIATIONS

Abbreviation	Explanation					
ANOVA	Analysis of variance					
CAF	Complexity, accuracy and fluency					
ESL	English as a second language					
KBSRMalaysia's New Primary School Curriculum						
KSSR Primary School Standard Curriculum						
L1	First language					
L2	Second language					
MSTTR	Mean segmental type-token ratio					
NP No planning						
OLP	On-line planning					
PTP	Pre-task planning					
RQ	Research question					
SLA	Second language acquisition					
SPSS	Statistical Package for Social Science					
UPSR	Primary School Assessment Test					
VSSP	Visuospatial sketchpad					

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CHAPTER ONE: INTRODUCTION

1.0 Introduction

The first chapter of the dissertation introduces some important issues regarding the teaching and practices of writing in the Chinese primary school context. The research objectives, research questions, problem statements and scope of study are presented in this chapter.

1.1 Background of the Study

Focusing on the struggle of English language learners in Malaysia in writing, this study investigates the effects of planning conditions on second language (L2) young writers' quality of narrative writing. English language, as a *lingua franca* serves as an important medium of communication regardless in academia or in daily lives. Malaysia as a multilingual country is not exempted from the influence of English language. In both primary and secondary levels, English is taught as a second language and a compulsory subject in all Malaysian schools (Hiew, 2012). From the British Colonial era until now, the English language education in Malaysia has experienced a few stages of transformation. Nevertheless, people have different opinions on the issues of the changes in language education and often, it is claimed that those transformations contribute to the falling standards of English language among Malaysians nowadays. In this chapter, issues of primary English language curricula and their relevance to learners' writing practices and proficiency will be presented. Understanding these issues is very important because it provides us with some basic ideas about how writing is taught, how young learners write, how well they perform in writing, what obstacles they face in writing and also what is the expected written proficiency in Malaysian primary school contexts.

The present study started in year 2013. It was a year when the primary schools in Malaysia were undergoing the process of curriculum transformation. The pupils who studied in Years 4, 5 and 6 learnt English under the KBSR (Malaysia's New Primary School Curriculum) syllabus whereas the pupils in Years 1, 2 and 3 studied under the KSSR (Primary School Standard Curriculum) syllabus. At that time, The KBSR syllabus was slowly phasing out and would be fully replaced by the KSSR syllabus in 2016 (Ministry of Education Malaysia, 2013). The issues related to the narrative writing in Chinese primary school under these two curricula will be presented in the next section.

1.1.1 Narrative Writing in Chinese Primary School Curriculum

In the KBSR syllabus, pupils should be able to acquire a certain number of writing skills specified in the curriculum specification. For instance, pupils should be able to write longer texts in the form of paragraphs in guided and/ or free writing, write simple descriptions of things, events, scene and what one did and saw, and write to express their feelings and exercise their creativity such as when writing a diary, composing stories, etc (Ministry of Education Malaysia, 2001). From the aforementioned skills, it is apparent that narrative writing is an important genre of writing to be taught in the KBSR English language syllabus.

In the KSSR syllabus, pupils learn English language under three broad themes: 1) World of Stories, 2) World of Self, Family and Friends and 3) World of Knowledge. Besides, English language lessons are taught based on five modules which focus on skills such as listening speaking, reading, writing, language arts and grammar (Ministry of Education Malaysia, 2013). Topics related to narrative writing are usually covered in writing module under the themes of World of Stories and World of Self, Family and Friends.

In the UPSR (Primary School Assessment Test) English Language Examination of the KBSR syllabus, Section C (note expansion) in Paper Two (writing) plays an integral part in the examination. It contributes 19 percent of the total scores and narrative writing is the most common genre to be tested in this section. From the analysis of the actual exam questions in Section C from 2007 to 2015, the researcher discovered that all questions were of narrating. The analysis was done based on two reference books which compile actual exam questions in the UPSR English Language Examination, with the approval from the examination syndicate (*Kertas soalan peperiksaan sebenar 2007-2013 UPSR Bahasa Inggeris*; 2013 & Rajathurai, 2016). Table 1.1 below shows the analysis of the topics in the Section C of the UPSR English language papers from 2007 to 2015.

Topics	2007	2008	2009	2010	2011	2012	2013	2014	2015
Holidays									
Events and Activities	/	/			/		/		/
Neighbours				/					
Social Issues			/						
Incidents						/		/	

Table 1.1. Topics in UPSR English language papers from 2007 to 2015 (Kertas soalanpeperiksaan sebenar 2007-2013 UPSR Bahasa Inggeris; 2013 & Rajathurai, 2016).

In year 2016, all the Year 6 pupils will be taking their examinations using the new examination formats, as the syllabus of the English language is fully replaced by the KSSR syllabus. English language will be assessed in two papers: 1) Comprehension

and 2) Composition. Moreover, note expansion task will still remain in English language evaluation and more marks (50 marks) will be allocated to this task (Ministry of Education Malaysia, 2015). The new examination format in English language evaluation calls for more attention given to different genres of writing including narrative writing.

In the practice of teaching writing, pupils in Chinese primary schools are generally given a lot of time during the week for writing exercises. It is different from the national schools or Tamil primary schools as these schools focus more on rote memorisation and repetition in improving writing skills (Lim, 2013). However, in the UPSR examination, pupils in the Chinese and Tamil primary schools need to sit for eight subjects whereas pupils in the national schools need to take six subjects. Due to the number of subjects that they need to cope, it is important for the pupils in primary schools to master proper English writing skills so that they can pass these assessments. In the present study, the researcher chose pupils from the Chinese primary schools to be the participants as the researcher is a Chinese primary school teacher and would like to use the findings of the present study improve his practice in the instruction of writing.

1.1.2 The Importance of Learning Narrative Writing

There are several reasons to explain why children need to learn narrative writing. According to Elliot (1995), young writers capture their everyday lives on pages through narrative writing. The benefits of expressing feeling and experience through writing can be extended to the psychological and physiological aspects (Graham and Perin, 2007). Besides, children can be empowered to become critical thinkers by expressing themselves in narrative writing because children have to use their imagination to write narratives (Burke, 2012). Furthermore, Elliot (1995) pointed out some importance of narrative writing explicitly, as shown in the following:

- a) Narrative writing provides legitimacy: Through writing narratives, children can find the sense of authenticity in their daily lives.
- b) Narrative writing provides metacognition: In order to produce a piece of narrative, writers have to select and edit events and at the same time "think about the process of thinking".
- c) Narrative writing provides access to the holy, mysterious and spiritual quality of human consciousness: Writing narratives helps the awakening of spirit, the feeling of awe, the idea of mystery and the sensation of fascination.

1.1.3 Task-based Language Learning

In language classrooms, a task is an activity that is conducted using language (Richards & Rodgers, 2001). According to Patil (2014), tasks should fulfil certain principles of language learning, such as:

- 1. Provide the processing of input and output required for language acquisition.
- 2. Motivate and encourage learners to use authentic language.
- 3. Task difficulty can be negotiated to suit learning purposes.

In the present study, the task used to obtain pupils' language output is a note expansion task. The note expansion task is provided with pictures and keywords for primary school pupils to write a narrative. The note expansion task used in the present study fulfils the principles listed by Patil (2014) as it provides keywords for learners to internalise and at the same time prompts the pupils to write (externalisation). Besides, the note expansion task encourages pupils to use authentic language as the task is about

an event related to their daily lives. Furthermore, with the picture prompts and keywords given, the difficulty level of the task is already adjusted to the pupils' level and at the same time, suits the pupils' learning needs and appropriate for the purposes of the present study.

1.1.4 Challenges Faced by Young ESL Writers

For ESL learners, performing a writing task can be challenging because it requires them to attend to different mental processes. The challenge of completing writing tasks is even greater for young ESL learners, as they are still developing their proficiency in English. Young ESL learners have insufficient vocabulary and incomplete mastery of grammar to complete writing tasks (Nam, 2011). The factors that hinder young ESL writers' proficiency include the confusion between school and home environments, cultural background and also underdeveloped bilingualism (Nam, 2011). Hence, their writing may not show the complexity of mature writers. They might use whatever linguistic resource available to them to write and their writing might manifest features such as invented and unconventional spelling and letter forms, inappropriate segmentation and punctuation and the use of drawing or writing to express ideas (Hudelson, 1989).

1.1.5 Importance of Planning to L2 Writing

Planning is one of the sub-processes in writing where the writer establishes goals, generates ideas and organises those ideas (Ellis, 2005). Due to the attention it attracted in the studies of second language acquisition (SLA), it is now a field of inquiry on its own right (Ortega, 2005). From the second language acquisition research to date, there are two major types of planning conditions: 1) pre-task planning and 2) on-line planning.

Pre-task planning is always operationalised as the provision of time given before the actual performance of a language task (Johnson, Mercado & Acevedo, 2012) whereas on-line planning is defined as within-task planning where learners are given unpressured time limit to perform pre-production and post-production monitoring (Ellis & Yuan, 2004). Planning is important in L2 writing as it may affect how a learner uses language. According to Skehan and Foster (1999), engagement of different planning conditions may affect the language production of writers. It is because when writers plan differently, the cognitive load of the writers will be reduced as the writers engage in different components of their working memory under a specific planning condition.

Moreover, the manipulation of planning conditions also plays a facilitative role in interlanguage development (Lin, 2013). From an information processing perspective, Crookes (1989) postulated that learners push their interlanguage to its limits when they plan. As the learners use the language which is on the edge of their current linguistic ability, they engage themselves in second language learning (Crookes, 1989). Thus, it is possible for language teachers to apply proper manipulation of planning conditions in L2 writing tasks in order to promote learners' L2 writing skills.

The beneficial effects of the manipulation of planning conditions on L2 writing have been found in previous studies. The details of how planning conditions affect linguistic output, as discovered in those studies will be presented in Chapter 2.

1.2 Statement of the Problem

Writing is one of the pivotal skills to acquire in schooling years but the acquisition of the skill is challenging. The challenge is even tougher when it comes to the acquisition of second language writing skills. To relate it to the Malaysian context, the limited proficiency of Malaysian students is one of the issues needs to be solved (Ali, Hamid & Moni, 2011). In terms of writing skills, having proficient command of writing skills is crucial in deciding one's academic success (Graham and Perin, 2007). Thus, in order to pave the road of success for the students in academic, teaching of the necessary writing skills should not be taken lightly. In this study, the research examines the effects of planning, which is a cognitive process in writing, on pupils' L2 production. As predicted by Johnson (2012), planning would have positive impact on the complexity, accuracy and fluency of L2 writing. Furthermore, writers in L2 would be able to focus more on the translating process (process of selecting grammatical forms and lexical items) in their writing if they perform planning properly (Oh, Lee & Moon, 2015).

From the observation of the researcher, it is found that majority of pupils in Chinese primary schools do not achieve the desired competency in performing the note expansion task in their English language examination paper where in the task, the pupils should be able to demonstrate their ability to write short descriptions of things, events, scenes and what they did and saw (Ministry of Education, 2001). This section of the English language paper is always the part which pupils find most difficult. Other than that, the researcher also found that pupils do not perform any planning before writing because the pupils are given keywords in the note expansion task. Moreover, the keywords given in the note expansion task are arranged according to the order of the story and at the same time, inflected according to the desired verb forms and therefore, the provision of keywords hinders the pupils to perform strategic planning prior to the actual writing. Other than this, based on the researcher's experience, teachers in Chinese primary schools do not coach the pupils in performing pre-task planning but they put more focus on making grammatical sentences and self-checking their own writing. In the researcher's opinion, pupils might perform pre-task planning if they are given proper instruction on how to perform it prior to the examination and it might positively affect pupils' overall performance. The researcher's observation is in line with the statement given by Silva (1993), who reported that L2 writers did very little planning such as goal setting but spent more effort in generating materials. However, from the study conducted by Rahimpour and Nariman-Jahan (2011), it was found that planning could benefit both high and low proficiency learners, as the study claimed that low-proficiency learners could be benefited in terms of fluency, lexical complexity and syntactical complexity whilst high proficiency learners could enhance their language accuracy and lexical complexity (Rahimpour & Nariman-Jahan, 2011). Based on the advantages mentioned in Rahimpour and Nariman-Jahan's (2011) study, the present study is carried out to examine whether the same effects could be yielded from the Chinese primary school pupils.

Moreover, it is interesting to notice that in the note expansion section of the English language paper, pupils are required to write a short narrative between 80 to 100 words in average but the time given to perform the task is much more than adequate (35 minutes). The researcher believes that the extra provision of time helps the pupils to check and improve their writing and reduces the time pressure of the pupils in performing the writing task. When pupils have extra provision of time, they may be considered performing the task under on-line planning condition. However, it is still a doubt whether the extra provision of time is necessary to improve pupils' writing quality. If the extra provision of time (on-line planning) does not have any significant effect in improving or maximising pupils' quality of writing, the examination syndicate may need to reconsider the time needed for note expansion tasks, so that the pupils can use their time more efficiently in attending other tasks in the exam.

Hence, there are two identified problems which need to be investigated: 1) the effects of strategic planning in improving pupils' writing quality and 2) the effects of unpressured time condition on pupils' writing quality.

1.3 Purposes of the Study

Based on the identified problem in second language writing, the study is carried out to serve several purposes. First, the present study investigates the effects of different planning conditions (pre-task planning and on-line planning) on the quality of Chinese primary school pupils in Malaysia. In this research, the planning conditions are adapted based on Kellogg's (1996) model. The quality of pupils' writing is analysed in terms of complexity, fluency and accuracy (henceforth known as CAF). In addition, the research hopes to examine how Chinese primary school pupils approach the given note expansion task. The reason for examining how pupils approach the writing task is to identify other aspects which may affect pupils' quality of writing in the writing process. Moreover, the research also intends to investigate Chinese primary school pupils' perception about the effects of planning conditions in their writing. The rationale for investigating pupils' perception is to identify whether different planning conditions affect pupils' perception awiting task.

1.4 Objectives of the Study

The research objectives of this study are threefold. First of all, the present study investigates how planning strategies affect the performance of narrative writing performed by Chinese primary school pupils. The CAF of the pupils' written narratives will be examined. Second, the study investigates how pupils approach the narrative writing task under different planning condition and to relate the findings to Kellogg's (1996) Model of Writing Processes and pupils' performance based on the analysis of CAF. Third, the study intends to obtain pupils' opinions of planning strategies in writing. Pupils' opinions will be obtained in order to examine how planning affects pupils' perception of their performance in terms of CAF.

1.5 Research Questions

Based on the aforementioned objectives, the present study aims to explain how planning conditions affect Chinese primary school pupils' narrative writing quality analysed in terms of CAF. Besides, this study also attempts to find a link between how pupils approach the narrative writing task under different planning conditions and the actual performance of the pupils. The study also investigates how the pupils think of their performance in terms of CAF. Thus, the questions that the present study aims to solve are:

1. To what extent does planning have on Chinese primary school pupils' written complexity, accuracy and fluency when they perform pre-task or on-line planning?

2. How do Chinese primary school pupils approach the narrative writing task under different planning conditions?

3. What are the Chinese primary school pupils' perceptions on their performance in different planning conditions?

1.6 Significance of the Study

The present study serves an important role to enrich the pool of knowledge of CAF research. From the previous studies on CAF, it is worth noticing that there is no conclusive result to explain how different planning conditions affect writers' CAF, except for the consistent findings which indicate pre-task planning has positive effects on writers' fluency (eg. Ellis & Yuan, 2004, Abdollahzadeh & Kashani, 2011, Johnson,

Mercado & Acevedo, 2012, Piri, Barati & Ketabi, 2012 etc). However, the effects of planning on accuracy and complexity are still a big area that needs to be explored. Therefore, conducting a CAF research is a worthwhile effort to enrich the findings in this area, with the hope of seeking for consistency with the findings of other studies.

Furthermore, to the researcher's knowledge, there are very little studies of CAF conducted in Malaysian context and even less was conducted on primary school children. Hence, it is important to conduct a CAF research on Malaysian primary school pupils' writing to fill in the gap of the research in this area. With the findings obtained from the present study, there will be more empirical data for second language researchers to explain how Malaysian primary school pupils' would actually perform, if they are provided with the time to plan before performing a task or to write without time pressure.

Furthermore, the present study investigates the viability of the Kellogg's (1996) Model of Process Writing hypotheses in the case of Malaysian Chinese primary school pupils. According to Kellogg's (1996) model, writers attend to different processes when they write but due to the limited capacity of central executive system, writers will only focus on a specific component of writing processes which they prioritise mentally. To test the theory, the present study investigates whether pupils in Malaysian Chinese primary school write as predicted by this model.

Moreover, the present study intends to bring some awareness to the writers and English language teachers about the importance of planning, which is not emphasised in the teaching of writing at primary school level. If planning has positive effects on the writing quality, pupils in primary schools should be encouraged to plan before performing their written task, even though in their examination, inflected keywords are given according to the flow of the picture cues. Lastly, it is hoped that the present study would shed some light to improve the practice of English language writing in the Malaysian context. With the comparison of performing narrative writing task under pre-task planning, on-line planning and no planning (time pressured) conditions, writers in the Malaysian context should adopt the most favourable planning condition in their writing practice, so that they can write with better quality.

1.7 Scope and Limitations of the Study

First of all, the limitation of the present study deals with the generalisability of the results. Due to the unique multicultural background in Malaysia, pupils in Malaysian Chinese schools need to learn at least three languages in schools (Ting, 2013). Therefore, the challenge for the Chinese primary school pupils to learn second language writing skills is different than other contexts. Therefore, the results of the research might be more relevant to the unique multicultural context in Malaysia, even though other cultural contexts might still be able to refer to these results in their second language writing studies.

In addition, the study focuses only on the planning conditions research by Ellis and Yuan (2004), i.e. pre-task planning, on-line planning and no planning. In previous studies, other researchers used different planning conditions in carrying their studies. For instance, Shin (2008) employed individual planning condition and collaborative planned condition and Johnson, Mercado and Acevedo (2012) examined the subprocesses of L2 writing, such as idea generation, organization and goal setting.

Furthermore, the present study investigates the subsystem of planning in accordance to Kellogg's (1996) Model of Process Writing. In this study, other systems involved in writing are not prioritised in discussion unless the need of involving those systems arises.

Other than that, the present study investigates the effects of planning on the quality of young learners' writing. Due to the developmental differences between young learners and adult learners, considerations should be made should there be any transference of result or theory of young learners' writing to adult learners' writing and vice versa.

Moreover, the researcher decided to research on narrative writing in the present study due to the relevance of the genre to the researched context. Thus, the results obtained from the study are limited to the studies of narrative writing, exclusive of other genres of writing such as descriptive, argumentative, etc.

Next, the research is carried out to the children aged 12 in a Chinese primary school. Pupils at other ages are not involved in the research due to the reason that they are different in their language performance at different developmental stage.

1.8 Organisation of the Dissertation

The present study consists of six main chapters. The first chapter provides a brief introduction regarding the background of the study, problems/ raised issues, purposes/ objectives of the study and etc.

The second chapter describes the literature related to the effects of planning on the complexity, accuracy and fluency of L2 writers. This chapter introduces the theoretical framework used in the present study, together with the rationale of the selection of the theoretical framework.

The third chapter outlines the research design and methodology of the present study. In this chapter, readers will be able to understand how the present study is carried out in the setting, and how the collected data is analysed.

Chapter Four in the present study presents the results obtained from the study. In this chapter, the detailed analysis of data obtained from each instrument is presented. The results in this study would be able to prove whether both planning conditions (pretask and on-line planning) affect CAF of Chinese primary school learners.

Chapter Five of the present study discusses about the results of the study. Besides, this chapter gives justifications of the results yielded from the research. This chapter also summarises the findings of the research.

Last but not least, the sixth chapter concludes the whole study and provides suggestions and recommendation for future studies. It is a short chapter but it provides a good insight for the future researchers to improve the current study.

1.9 Conclusion

This introduction chapter describes the background of the study, drawing from the history of English language curriculum to the current practice of narrative writing in Malaysian Chinese primary schools. Furthermore, it points out the problem statements, purposes of the study, objectives of the study, research questions, the significance and also the limitations and scope of the present study, which justify the needs of the present study to be carried out.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter discusses the important concepts and constructs related to the present study. The essence drawn from the results, findings, justifications, predictions and relevant information about the previous studies will also be included in this chapter.

2.1 Narrative Writing

In the present study, the genre investigated was the narrative writing of L2 young learners. According to G. Ellis (2013), 'young learners' are children below 18 years old. In the present study, the pupils selected were Year 6 pupils, who were 12 years old in average. From studying young learners' narrative writing, we would be able to identify how young writers elaborate an event using their repertoire of writing skills.

A narrative is a story that describes a sequence of events (Moen, 2006). To distinguish a narrative genre apart from other genres, there are some elements that a reader can look into. Nevertheless, different notions and syntax categorisations of the elements in a narrative were used by different scholars, for examples, studies by Labov and Waletzky (1967) and Van Dijk (1977a). Labov and Waletzky (1967) identified three macro-structures of a narrative: 1) Orientation, 2) Complication, 3) Evaluation. Van Dijk (1977a) listed the superstructure of a narrative, which consists of five major elements: 1) setting, 2) complication, 3) resolution, 4) evaluation and 5) moral. There is also an alternative categorisation of the narrative superstructures, which a narrative consists of setting and episode and the superstructure of episode can be further divided into exposition, complication and resolution (Kintsch, 1976, as in Cortazzi, 2014).

Model of Narrative Superstructure



Figure 2.1. Model of Narrative Superstructure (Van Dijk, 1977a).

Alternative Model of Narrative Superstructure



Figure 2.2. Alternative Model of Narrative Superstructure (Kintsch, 1976, as in Cortazzi, 2014).

2.2 Second Language Writing

The current study falls under the niche of second language writing studies. Based on the researcher's experience in teaching Chinese primary schools, English language is their second language. In the process of writing in English, pupils in Chinese primary schools tend to translate words, phrases and organisation from their first language. According to Connor (1996), translation from first language in ESL writing is very common even among the advanced level students. In the translation process, the language and stylistic convention from the writers' native language and culture are borrowed (Connor, 1996).

As the first language of the pupils in the present study are mostly Mandarin and Hokkien, the instruction of ESL writing is somewhat different than teaching writing as a first language. According to Silva (1993), L2 writing instructions should be different from L1 writing in terms of their expectation in writing test as it is difficult to expect L2 writers to write as good as L1 writers in writing tests. Furthermore, L2 writing instructors should be aware of learners' sociocultural, rhetorical and linguistic differences from the target language and they need to design the lessons to suit the learners' needs of learning. L2 writing teachers, unlike their L1 counterparts, need to teach writing from the rhetorical, strategic and linguistic aspects as in Silva's (1993) study, L1 learners manifested greater sophistication in these three aspects. Therefore, it is important for L2 writing instructors to teach learners planning, transcribing and reviewing strategies which take rhetorical, strategic and linguistic aspects into account (Silva, 1993). Hence, different perspectives, models and practices are often employed in the instruction of ESL writing (Kroll, 1990).

Besides, the challenge of acquiring second language writing skills is even more demanding when it comes to children. According to Lanauze and Snow (1989), L2 children (in their case, fourth and fifth graders in a Spanish-English bilingual programme) need more time to the exposure of language input so that they can apply their language skills properly in classrooms. To address this concern, the present study seeks to find a planning condition which enables second language young writers to maximise their performance in writing.

2.2.1 Measurement of L2 Performance: Complexity, Accuracy and Fluency (CAF)

Complexity, accuracy and fluency (CAF) are notions used in second language studies to measure language performance (Pallotti, 2009). According to Gené-Gil, Juan-Garau and

Salazar-Noguera (2015), CAF is objective indicators of the written performance of language learners. CAF are used to evaluate oral and written performance because researchers and language practitioners believe that they can adequately address the multi-componential nature of L2 performance (Ellis and Barkhuizen 2005).

In the analysis of CAF in language production, language researchers have to be very clear with the definition of CAF constructs. The construct of fluency is the measure of real time language production at normal rate without hesitation or interruption (Skehan, 2009). In terms of writing fluency, it is operationalised as the aptitude of writers to produce huge chunks of texts and it is evaluated through using the length of production units (Latif, 2012). It can also be regarded as how fast the writers write in writing tasks (So, 2015). Nevertheless, the measure of fluency alone is multifaceted in its nature. The measure of fluency can be categorised into three subdimensions: 1) breakdown fluency, 2) speed fluency and 3) repair fluency. Breakdown fluency is assessed by counting the pauses and amount of silence in language production. Speed fluency can be evaluated based on speech and articulation rates, mean length of run and time ratio. Repair fluency is measured by giving aspects such as reformulation, replacement, false starts and repetition of words or phrases into consideration (Tavakoli & Skehan, 2005). Nevertheless, researchers of writing gained their insights primarily from the research of speech in measuring fluency (Waes & Leijten, 2015). However in the studies of L2 writing, two of the fluency aspects which have been measured are temporal fluency (rate of production) and repair fluency (Lin, 2013).

The construct of accuracy is another construct which is often used to measure language performance. However, the use of this measure to indicate language development has become a debateable question (Palloti, 2009). The construct of accuracy is defined as the ability of avoiding error in language production that might reflect higher levels of language competency as well as the ability to avoid the use of risky structures that might cause errors in production (Skehan & Foster, 1999). According to Bley-Vroman (1983), the development of interlanguage cannot be judged based on the accuracy measure per se. Despite the criticism of its validity, the measure of accuracy is considered as a well-defined and coherent construct (Norris & Ortega, 2003: 737). Thus, measurement of accuracy should be assessed separately with the construct of development (Pallotti, 2009).

Among the CAF measures, complexity is considered as the most problematic construct (Pallotti, 2009). It is defined as the capacity of using more sophisticated language (Skehan & Foster, 1999). According to Ellis and Barkhuizen (2005), there are eight types of measures used in analysing learners' language complexity in these five aspects: 1) interactional (i.e. number of turns and mean turn length), 2) propositional (i.e. number of idea units encoded), 3) functional (i.e. frequency of some specific language function), 4) grammatical (i.e. amount of subordination, use of specific linguistic features and mean number of verb argument) and 5) lexical (i.e. type-token ratio). Nevertheless, in the field of task-based studies, Housen, Kuiken and Vedder (2012) categorised linguistic complexity measures based on three major linguistic components: 1) grammatical complexity (i.e. syntactical and morphological complexity) and 2) lexical complexity.

Moreover, measurement of CAF involves formulaic operationalisation of each construct, which includes the calculation of ratios and frequencies. For instance, syntactic complexity, accuracy and fluency are measured by counting number of subordinations, number of errors and number of pauses, respectively (Norris & Ortega, 2009). Hence, Skehan (2009) listed the descriptions of a well performed language task,

which includes more advanced language, error avoidance and uninterrupted rate of language production.

In the application of second language acquisition (SLA) research, the use of CAF as a measurement is no longer a novel approach. The use of CAF in SLA studies is to explain the development of language competency of learners in response to tasks, stimuli or teaching (Norris & Ortega, 2009). The present study is extended from the numerous studies investigated on the effects of different task conditions to the language quality of language learners but the results are still inconsistent. CAF measures are chosen in the present study because of their multidimensionality. It is considered multidimensional as in Housen and Kuiken (2009), they stated that CAF has been used to assess different types of language domains using various forms of tools, ranging from subjective and holistic ratings by using raters to qualitative and more objective measures such as frequencies, ratios and formulas. Due to their multidimensionality, CAF measures are chosen to evaluate learners' language performance in a holistic and precise manner. In the present study, the researcher only employed objective measures (such as syllables per minute, percentages of error-free clauses and ratio of clauses to Tunits) to evaluate CAF. Nevertheless, these measures cover all three aspects of CAF. Other than that, these measurements are used in the present study because they have been used in L2 writing before. The results obtained in this study can be compared to other previous studies and from the comparison and hence, a more subjective explanation of the effects of planning on young learners' CAF can be given.

2.3 Planning in Second Language Writing

Planning is a process that forms mental pictures of knowledge to be applied in writing. Most of the time, it is greatly different than the written product in terms of the degree of abstraction (Flower and Hayes, 1981). Flower and Hayes (1981) also pointed out the subprocesses involved in the planning process of writing, as shown below:

- a) Generating Ideas: The retrieval of information from long-term memory.
- b) Organising: The process of structuring meaning to the writer's ideas.
- c) Goal-setting: The process of establishing a purpose and short-term goals in writing (Hacker, Dunlosky& Graesser, 1998). It is also a process created by the writer which goes on throughout the process of composing. It is also the major process in planning and it plays as an important part to determine the creativeness of writers, or even to determine good and bad writers.

Nevertheless, previous studies have shown that young learners do not plan their writing properly. According to MacArthur, Harris and Graham (1994) in Berninger et. al (1996), younger writers are less likely using strategies such as using text structure knowledge, employing heuristic strategies to search for content from the memory or directing the writing process using goals. Moreover, Burtis, Bereiter, Scardamalia and Tetroe (1983) in Berninger et. al (1996) also believe that young writers have difficulty to separate on-line planning with translation process, whereas the more experienced writers acquired the ability to perform 'advanced planning' before and separate from the text production. In relation to this, a study conducted by Graham, Harris, MacArthur and Schwartz (1991) reveals that both average and learning disabled young learners (aged between 9 and 12) in primary schools spend less time in such form of 'advanced planning' but they spend more time in on-line planning and translating. From the literature, the researcher interpreted 'advanced planning' as pre-task planning as in Berninger et al's (1996) study, writers who underwent advanced planning were given 10 minutes to plan before performing the task. The operationalisation of advanced planning used in Berninger et al's (1996) is similar to the operationalisation of pre-task planning used in the present study.
The process of planning, however, can occur before the writers perform the task and/ or while the writers are performing the task. From the literature to date, there are two types of planning identified in L2 writing: pre-task planning (PTP) and on-line planning (OLP) (Hsu, 2012). The first type of planning, which is PTP can be further divided into rehearsal and strategic planning (Ellis, 2005). Rehearsal is the repetition of task prior to the actual writing (Hsu, 2012) whilst strategic planning is the preparation done for a language task by considering the encoding and expression of the actual task materials (Ellis, 2005).

In contrast with PTP, OLP is the planning process that occurs within the task and operationalised as the providence of as much time as the writers need in a written task (Ellis, 2009). With the on-line planning, writers will have less pressure in communication (Skehan and Foster, 2005).

In the present study, the effects of both PTP and OLP are compared in order to investigate whether these two planning conditions can really yield better quality of L2 writing. Besides, the baseline performance of the young L2 writers is obtained in the present study by having a control group, which L2 writers perform the writing task without performing any means of planning. Having this control group is a step to examine the effectiveness of planning (be it PTP or OLP) in improving the quality of L2 learners' writing.

2.3.1 Planning in L2 Writing: Theoretical Framework

Writing is an activity which involves several mental processes. There are various theories or models, such as those proposed by Flower and Hayes (1981), Bereither and Scardamalia (1987), Grabe and Kaplan (1996), Kellogg (1996) and Zimmerman (2000)

that explain the mental processes involved in writing and most of the theories are similar in many ways. In the present study, Kellogg's (1996) Model of Writing Processes is chosen as its theoretical framework. Even though it was previously used to describe L1 writing, Kellogg's (1996) model has been extensively used in studies L2 writing to interpret the results of how planning affect writing production (Ellis & Yuan, 2004; Johnson, Mercado, Acevedo, 2012; Seifollahi & Tamjid, 2012).

Kellogg's (1996) model is chosen for the present study because the model describes the systems of writing and the interaction of them in details (Cho, 2003). Kellogg's (1996) model posits that there are three main systems involved in writing: 1) Formulation, 2) Execution and 3) Monitoring (Ellis & Yuan, 2004). In each system, two writing processes are involved and those processes are linked in a sequential order. Furthermore, the model is used because it can find out the correct location of the different writing processes in each of the working memory registers (Alamargot & Chanquoy, 2001). Other than that, Kellogg's (1996) model is the only model which provides the link between the planning subprocess and its relating working memory components. Based on these reasons, the model is chosen to be the theoretical framework in the present study.

The two processes involved in the formulation system are planning, and translating (Kellogg, 1996). Process of planning entails goal establishment, idea creation and the organisation of these subprocesses to facilitate action (Ellis & Yuan, 2004). The process of translating is the process which relevant lexical units and syntactic frames are selected so that these linguistic units can be encoded and ready to be represented either in graphological and phonological forms in the execution system (Ellis & Yuan, 2004). To further describe the process of planning, a writer plans his writing by visualising a few things, such as ideas, supporting graphics, organisational

schemes, layouts and orthography output (Kellogg, 1996). Then, the engagement of the visuo-spatial sketchpad enables the writer to conjure visual imagery of ideas which is drawn from the long-term memory (Paivio, 1986; as in Kellogg, 1996). Hence, the writing literature always regards planning as the non-linguistic work. The subprocess of translating, which is regarded as the linguistic work from literature, is the process involved selection of lexical units, building of syntactic frame, phonological representation of lexical units in frame and transference of phonemes into graphemes. However, it should be noted that planning and partial translation process are commonly happened concurrently (Kellogg, 1996). Thus, when a writer performs both planning and translating at the same time, both processes compete for the working memory resources and therefore the competition leads to the increase of the cognitive demand (Johnson, Mercado, & Acevedo, 2012).

In the execution system, the output from the translation subprocess will be programmed by handwriting, typing (Abdel Latif & Muhammad, 2009) or dictating (Kellogg, 1996). The two subprocesses involved in this system are programming and executing. Programming deals with the motoric elaboration whilst executing is the realisation of the message (Alamargot & Chanquoy, 2001). However, the subprocesses of programming and muscle execution differ based on their output modes (handwriting, typing or dictating). In handwriting for example, a writer has to select the appropriate letter size and allographic form, setting the force parameter and get the muscles ready for the writing process (Van Galen, 1990 in Kellogg, 1996). In the execution subprocess, a writer needs to execute processes such as motor commands, muscle movements and feedback mechanisms, which ensure the legibility of the handwriting (Shepard, 1994; Brown 1988 in Kellogg, 1996).

The final system which a writer would engage cognitively is the monitoring system. The two subprocesses involved in the system include reading and editing. In the monitoring system, the language output produced by the writer is evaluated and revised (Becker, 2006). In the subprocess of reading, the central executive and the phonological loop are activated as the writer reads the text he produced while in the editing subprocess, visuo-spatial sketchpad is involved in maintaining the correct picture of how the text is placed in a page (Galbraith, 2009).

To relate Kellogg's (1996) model to the present study, this model is chosen as the theoretical framework due to its central claim that in the production of text, a writer has to decide which subprocess of writing should be prioritised due to the fact that the central executive does not have the capacity to attend all subprocesses of writing (Ellis, 2005). Nevertheless, the three systems involved in Kellogg's model should not be understood as a one-after-another process. Instead, these three distinct systems operate simultaneously when a writer writes a text (Kellogg, 1996). Therefore, writing is a mentally complex process which various subprocesses are involved concurrently. Getting to know the nature of the intrinsic part of the writing process might help SLA researchers to identify the manipulation of the subprocesses involved in writing and therefore maximise learners' writing performance. In the next sections, the roles of working memory will be presented, as it is an important component in the process of writing. An illustration of the model is shown in Figure 2.3.



Figure 2.3. Kellogg's (1996) Model.

Other than Kellogg's (1996) model, there are other models which illustrate the process of writing, such as Flower and Hayes' (1981), Bereither and Scardamalia's (1987), Grabe and Kaplan's (1996) and Zimmerman's (2000) models as presented in Figure 2.4, Figure 2.5, Figure 2.6 and Figure 2.7. The other four models are presented in this section in order to compare their suitability to be used in the present study.

In Flower and Hayes' (1981) model of writing (demonstrated in Figure 2.4), the three main components involved in writing are the task environment, the long-term memory of the writer and the writing process (Flower and Hayes, 1981). According to the model, the task environment contains all of the external elements, ranging from the rhetorical problem or assignment and the text produced at the moment. The second component, the long term memory, dealt with the writer's knowledge of the topic as well as the variety of writing plans and audience. The third component of the model is the writing processes, which are planning, translating and reviewing as illustrated in the model. The three processes of writing, according to the model, are controlled by a monitor (Flower and Hayes, 1981). Nevertheless, this model is not suitable for the present study as the main focus in the present study is on the writing process but not on the task environment and writer's long term memory.



Figure 2.4. Flower and Hayes' (1981) Model.

Moreover, Bereiter and Scardamalia's (1987) knowledge-transforming model (illustrated in Figure 2.5) posits that content generation in composition involved the interaction of two problem spaces: 1) a content space which problems of belief, consistency of logical thought and the like are processed and 2) a rhetorical space where problems pertaining to the composition goals are handled (Bereiter & Scardamalia, 1987). In developing a main point in composition, a problem-solving process which involves the interaction between content problems and rhetorical problems is taken place (Bereiter & Scardamalia, 1987). However, this model does not include the role of working memory in writing, which is one of the important elements used in the discussion of findings in the present study. Hence, this model is not chosen to be the theoretical framework of the present study.



Figure 2.5. Bereiter & Scardamalia's (1987) Knowledge Transforming Model of Writing.

In the attempt to take the cognitive processing of writers, the linguistic and textual resources and contextual factors into account, Grabe and Kaplan (1996) postulated a model of writing for communicative language use (Lu, 2010). The model

(as shown in Figure 2.6) includes two important components, i.e. context and verbal working memory in the model. 'Context', which is the external factor, consists of situation and performance. 'Situation' refers to the participants, setting, task, text and topic involved in the text production. 'Performance', which is the actual produced text, refers to the product resulting to the processing of verbal working memory. In Grabe and Kaplan's (1996) model, verbal working memory comprises three subcomponents: 1) internal goal setting, 2) verbal processing and 3) internal processing output. 'Internal goal setting' plays its role to mediate the external factors from the context to 'verbal processing' (which draws on language competence, knowledge of the world and on-line processing assembly as illustrated in Figure 2.6). The outcome of verbal processing is 'internal processing output' which is a processing output that externalises language performance in forms of textual output (Lu, 2010). From the description of the model, it is apparent that the model seeks to relate production of writing to its social context and cognitive processing for communicative language use. Nevertheless, this model is not suitable to be adapted in the present study as the present study needs a model which describes the process of planning in writing.

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Figure 2.6. Model of Writing as Communicative Language Use (Grabe and Kaplan, 1996)

Drawing on the social cognitive theory, Zimmerman (2000) postulated a cyclical model of self-regulated learning (see Figure 2.7). Based on the model, learners would go through three self-regulatory phases in learning, i.e. 1) forethought, 2) performance and 3) self-reflection. The forethought phase consists of two areas, which are task analysis and self-motivation beliefs that prepare learners to learn and enhance that learning. In the performance phase, processes such as self-control and self-observation are employed to facilitate learners' performance. In the self-reflection phase, learners react to their learning outcomes and influence the forethought phase in the coming cycle (Zimmerman, 2013). The model proposed by Zimmerman (2003) does not meet the need of the present study as it describes the cyclical learning process rather than the roles of planning in the language production.



Figure 2.7. Zimmerman's (2000) Self-regulated Learning Model.

Based on the comparison of Flower and Hayes' (1981), Bereiter and Scardamalia's (1987), Grabe and Kaplan's (1996) and Zimmerman's (2000) models with Kellogg's (1996) model, it is apparent that Kellogg's model is the most suitable model to be used as the theoretical framework in the present study, as it illustrates the processes involved in the production of L2 writing as well as the roles of working memory in the process of planning and other processes involved in writing. Hence, from the comparison of the existing models in L2 writing, Kellogg's (1996) model is selected to be used in the present study.

2.3.2 Working Memory in Writing

As it has been known, writing is a complex cognitive process. Thus, the process of writing involves the use of working memory. Kellogg's (1996) model is adopted from Baddeley's multicomponent model of working memory to work on language production

especially for writing (Olive, 2004). According to Baddeley (1992), there are three subcomponents of working memory: 1) central executive, 2) visuo-spatial sketchpad and 3) phonological loop.

In general, the investigation of working memory in writing can be researched in two different points of view. First, the roles of working memory can be investigated by studying the demands of writing tasks on short-term memory which specifically examines the relationships between writing processes and slave systems which are the phonologicial loop and visuo-spatial sketchpad according to Galbraith (2009). Second, the roles of working memory can also be studied by looking at how the central executive manages its functions and directs its attention in writing processes (Olive, 2004). In the next sections, the roles of visuo-spatial sketchpad and central executive will be discussed because these two components are related to the process of planning, which is one of the writing processes investigated in this study.

2.3.3 Roles of Visuo-spatial Sketchpad (VSSP) in Writing

As mentioned in the previous section, visuo-spatial sketchpad is one of the components involved in the process of planning. Visuo-spatial sketchpad is one of the two subsidiary systems in working memory (Baddeley, 2004). However, this component of working memory has received less attention for research in comparison to the other component in the working memory, the phonological loop (Logie, 1995).

Visuo-spatial sketchpad plays its role to generate, manipulate and retain visual images (Stainthorp, 2004). In another way, it maintains the visual representations and the spatial representations in the writing process (Schacter, Wagner & Buckner, 2000). Olive and Passerault (2012) state that the engagement of the visuo-spatial working

memory allows a writer to select and organise information to be included in texts. Besides Olive and Passerault (2012) also state that a writer can search for ideas, process and integrate pictures and retrieve conceptual knowledge from his long-term memory with the engagement of the visuo-spatial sketchpad. Hence, visuo-spatial sketchpad plays a vital role in retrieving and structuring information needed in writing.

Olive and Passerault's (2012) statement is in line with the assumptions made by Kellogg (1999) which assumed that the VSSP is activated when a writer processes figurative materials. The spatial element of the VSSP is engaged when a writer organises information (Olive, Kellogg & Piolat, 2008). In the process of planning in particular, many researchers suggested that visuo-spatial components of working memory are engaged during text production (Olive, Kellogg & Polat, 2008). Therefore, it is evident that the VSSP is an important component involved in the writing process, especially during the planning subprocess which requires the retrieval of image-based conceptual content (Olive, 2004). In other words, writers withdraw the visualised images from VSSP in the planning subprocess and in the translating subprocess, verbal components are drawn from the VSSP in order to formulate the lexical units and syntactic frames needed in writing (Yi & Luo, 2013).

2.3.4 Roles of Central Executive Unit in Writing

According to Baddeley and Logie (1999), the central executive unit controls and regulates the working memory system. They also listed its functions as follows:

- a) Coordinating the phonological loop and VSSP,
- b) Manipulating attention in terms of focusing and switching and
- c) Engaging representations within long-term memory.

Other than the aforementioned functions, Miyake et al. (2000) described three general functions served by the central executive system:

a) Inhibition: refers to the ability to consciously inhibit automatic, dominant and prepotent responses when necessary.

b) Updating: with this function, our brain will monitor and code information and link it to the task and at the same time, replace the old or no longer relevant information accordingly.

c) Shifting: a function concerning alternation of attention between tasks, operations or mental sets.

To relate the functions of the central executive unit in writing, it is important for SLA researchers to know how the central executive unit plays its roles in directing writers' attention in writing. In the present study, the researcher would like to investigate how writers attend to the note expansion task and at the same time to explain the phenomenon based on theories of the manipulation of central executive unit functions.

2.3.5 Roles of the Phonological Loop in Writing

The phonological loop is a storage system which stores speech-based information and acoustic information (Henry, 2011). The two subcomponents in the phonological loop are the phonological store and the articulatory rehearsal mechanism. The phonological store keeps the materials used for writing temporarily, whereas the articulatory rehearsal mechanism plays its role to rehearse the temporary information from the phonological store to prevent loss of information (Henry, 2011). To relate the phonological loop in Kellogg's (1996) model, it plays a role for learners to read the text they produced and edit it when necessary.

2.3.6 Assumptions in Human Information Processing and Their Links to Kellogg's (1996) Model

Writing is a highly complex activity which involves different processes simultaneously. These processes have been identified in different models of writing, for instance the Kellogg's (1996) model which is selected for the present study. Moreover, writing is also known as a human information processing activity (Stainthorp, 2004). In the effort of explaining writing process using Kellogg's (1996) model of working memory, there are several assumptions that writing researchers need to make in order to make the theory plausible. First of all, one of the assumptions and also the key feature of Kellogg's (1996) model is the claim of limited capacity. In Kellogg's (1996) model, the central executive is seemed to have limited capacity and when a writer performs a task under pressure, s/he needs to decide which writing process s/he needs to prioritise. Consequently, a trade off of attention would happen for a writer to dedicate attention to particular writing processes. Generally, formulation process seems to be more cognitively demanding and hence, it takes priority over execution and monitoring processes (Ellis, 2005).

Apart from that, the second assumption which relates the activity of writing to human information processing is the claim of control mechanism. According to Stainthorp (2004), a writer needs to have a control mechanism to perform writing tasks. This mechanism controls the processing, storage, retrieval and utilisation of information needed in writing tasks. Thus, a writer's capacity in performing writing tasks is always dedicated to different aspects of the executive function with different proportions. When a writer is performing a new writing task, more capacity will be dedicated to the compositional aspects of the task rather than the routine and overlearned aspects. Therefore, a well trained writer may need less effort in writing because very little capacity is required for him to perform the non-compositional aspects of writing, such as spelling the words and synchronising motor movements.

Furthermore, in accordance to Kellogg's (1996) model, the differences of allocation of mental resources between pre-task and on-line planning exist as the central executive system has limited capacity so prioritisation of form or meaning would take place in different planning conditions. Other than that, due to the limited attentional capacity of second language learners, they experience trade-off effects which cause the competition between complexity, accuracy and fluency of language production (Skehan & Foster, 1997). Hence, the present study investigates how young writers prioritise these components in different planning conditions. In Skehan and Foster's (1997) study, they discovered that there is an interaction between task type and planning. Learners produced more accurate speech when they were given structured task with the opportunity to plan and they tended to produce speech with greater complexity when the tasks provide them the opportunity to attend on-line planning or require complex outcomes. The present study examines how young ESL writers allocate their mental resources under different planning conditions and the effects of the planning conditions on their language production.

2.3.7 Reasons of Selecting Kellogg's (1996) Model as Theoretical Framework

Kellogg's (1996) model is chosen for the present study because this model clearly describes the components involved in a writing process. Besides, it provides SLA researchers the basis of how planning strategies affect language production (Ellis, 2005). For instance, with the availability of pre-task planning, a writer could reduce his cognitive loads of his working memory resources and therefore able to put greater

attention on the translation process when he writes (Ellis & Yuan, 2004). On the other hand, on-line planning enables a writer to monitor internally processed language in the translation process before externalising the actual textual output (Ellis & Yuan, 2004). Therefore, Kellogg's (1996) model provides SLA researchers solid descriptions of how writers attend to writing tasks under different planning strategies.

Other than that, using Kellogg's model as a theoretical framework provides us with the descriptions of L2 writing processes and therefore, makes it easier for L2 writing researchers to hypothesise the effects of planning on learners' performance (Ellis, 2005). According to Kellogg's (1996) model, learners who perform pre-task planning can write more fluently because pre-task planning reduces the cognitive load of working memory and writers can fully focus on the translation process as they write. Furthermore, Kellogg's (1996) model also suggests that the use of complex grammatical forms can be increased as the demands of working memory resources have been reduced. Nevertheless, there is no denite prediction made by this model in regards to the effects of planning on the complexity of writers' production (Johnson et al., 2012).

Apart from that, Kellogg's (1996) model is chosen in the present study because it is closely related to working memory. Different than other models such as the model of writing by Grabe and Kaplan (1996) and Flower and Hayes' model (1981), this model relates the writing processes with writing system and connects them with relevant working memory components. The descriptions of the model help L2 researchers to identify a more accurate location of the different writing processes in each of the working memory registers (Alamargot & Chanquoy, 2001).

2.4 Relevant studies on L2 Language Production Performance

In terms of linguistic studies, the research of planning effects on language production could be traced back to late 1980s. From the available literature, the first relevant study was carried out by Ellis (1987). In his study, he examined the effects of planning on the use of past tense markings in written and oral narratives. The three structures which he investigated were 1) regular past tense form, 2) irregular past tense form and 3) copula past tense form. To analyse the data, he counted the percentage of correct and incorrect verb forms used in the learners' written and spoken discourse. From his research, he discovered that L2 learners tend to produce more target like of accuracy when they were given the opportunity to plan. And to compare with two modalities of production, writing seemed to have more advantage in gaining higher percentage of language accuracy compared to speech.

Adding in another dimension of analysis, Crookes (1989) investigated on how planning affects the oral interlanguage of 40 Japanese students. Apart from looking at the language accuracy, he included the measures of language complexity in his study. There were 11 measures of language accuracy and complexity altogether in his study which included VP range per utterance, type per token ratio, words per error free and etc. The students involved in his study performed the oral task in two conditions, which are with planning and without planning. In terms of complexity measures, the study concluded that learners produced more complex interlanguage when they were given the opportunity to plan. Besides yielding more complex language, the study also suggested that planning might have some slight effects in improving learners' language accuracy. Other than that, planners were also found to use more discourse markers compared to non-planners in his study. Following the trend of Crookes (1989), Williams (1992) conducted a study about the effects of planning on the use of discourse marking of 24 nonnative speaking teaching assistants' discourse. In her research, she also measured the comprehensibility of the discourse produced by the participants using a variety of methods, such as using raters to rate the discourse according to a scale similar to Speaking Proficiency English Assessment kit (SPEAK), post rating interviews for the raters and also posing some comprehension questions for the raters. Her study also sought to find a link between the use of discourse marking and the comprehensibility of the discourse. The results of her study showed that when the participants were in the planned condition, their productions tend to be marked overtly and explicitly with discourse marking. Other than that, she also discovered that the increased use of discourse marker improved the comprehensibility of the spoken discourse as well.

The very first study which researched on the planning effects in terms of language fluency, accuracy and complexity was done by Foster and Skehan (1996). In addition, the participants in the study performed the given oral tasks (personal information exchange, narrative and decision-making) under three planning conditions (unplanned, planned without detail and detailed planning). From their study, they discovered that the degree of planning directly influenced the degree of complexity. The study also revealed that the effects of planning on fluency were complicated as from the study, planning seemed to yield more repetition, hesitation and replacement. Furthermore, mixed results were obtained in the accuracy measures, showing that different task types might affect the effectiveness of planning on language accuracy. Despite the mixed and unexpected results obtained from the fluency and accuracy measures, this study had clearly gained more attention from applied linguists to research on the connection between planning, task-type and language performance. Even though the planning conditions employed in Foster and Skehan's (1996) study were different

from those used in the present study, their study provide the researcher of the present study some insights about how planning would affect the performance of the learners and how planning can be done in the time provided.

In the following year, Wigglesworth (1997) carried out another study focusing on the oral fluency, accuracy and complexity measures. This study examined planning effects based on the aforementioned three measures which involved 120 students with different levels of proficiency. The study revealed the relationship between learners' level of language proficiency and the effectiveness of planning on the different language constructs, suggesting that the use of planning might only be beneficial to learners with certain level of language proficiency.

Moreover, the research of planning on language production had also ventured into the investigation of durational effects. For instance, Mehnert (1998) investigated 31 learners of German to perform oral tasks under different planning time: 0, 1, 5 and 10 minutes of planning. From the research, Mehnert (1998) found that fluency and lexical density of speech increase as a function of planning time. In terms of accuracy, the researcher found that planning had had some positive impact in improving the language production but the extra provision of planning time does not further improve the degree of language accuracy. For the measures of complexity, the researcher discovered that planning would only benefit the planners if they were given more time to plan (as suggested by Mehnert's study, more than 10 minutes). Little time for planning did not bring significant effects on the complexity of language production. Even though the findings of the research were not conclusive, the research had opened another possibility for future research to investigate the effects of planning time on language performance. From the research presented from the 1980s to 1990s, it is apparent that most of the research reviewed in that era was on oral tasks. The rationale of selecting these studies to be reviewed is to present the need of conducting relevant research on written tasks, as suggested by Soleimani and Kargozari (2014).

Other than judging the language productions in linguistic measures such as complexity, accuracy and fluency, studies on the effects of planning are also extended to other measures using analytical ratings. For instance, Shi (1998) used Hamp-Lyons' scale to rate 125 ESL essays in order to examine the effects of pre-writing activities such as peer discussion and teacher-led discussion on the quality of writing. The rating scale used by Shi (1998) consisted of analytical measures such as global, communication, organisation, argumentation, appropriacy and accuracy. From the analysis, Shi (1998) found no significant difference of the quality of writing across the three conditions of prewriting activities (peer discussion, teacher-led discussion and no discussion). Instead, Shi (1998) found significant differences on the students' length of essays and use of vocabulary across groups, showing that students write longer when they do not discussion before writing. Nevertheless, the study of Shi (1998) gives us more possibilities about how learners' language production can be analysed for relevant studies.

From the aforementioned research carried out from the late 1980s to 1998, the studies of the effects of planning generally investigated the impact of planning on language development. However, very few studies were done to explain the cognitive processes during planning. In this much unexplored area, the study by Ortega (1999) was considered as one of the earliest works which connected theories of cognitive load to the planning process. Ortega's (1999) study discovered that pre-task planning can

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increase learners' focus on form in L2 oral productions. In explaining the finding, Ortega (1999) claimed that planning reduces the cognitive load of L2 learners and allows learners to give more attention on assessing task demands. Hence, learners will be focusing more on forms when they are given the opportunity to plan their speech prior to the oral task performance.

Since the introduction of cognitive load theories in language production studies, there was (and still is) a growing concern of linking task structure and processing load of language tasks in SLA studies. For example, Skehan and Foster (1999) conducted a study which linked the inherent task structure of narrative oral task to the concept of processing load. From their study, they discovered that fluency was predominantly influenced by the task structure and complexity was influenced by the cognitive processing load. However, their study found a complex result for the accuracy measure which they explained the accuracy of performance was affected by the interaction of task structure and processing load. Skehan and Foster's (1999) had inevitably invited more studies to explain the interaction of these two factors with language production.

From the studies conducted since the late 1980s to 1990s, it is easy to notice that most of the studies focused on oral productions. Besides, previous literature showed an increase of research which focused on writing after 2000s. Ellis and Yuan (2004) carried out a study to investigate the effects of three different planning conditions (pretask planning, on-line planning and no planning) on 42 Chinese undergraduate English major students' fluency, accuracy and complexity in narrative writing. In their study, they used a narrative writing task which consisted of six pictures. To compare with all three planning conditions, Ellis and Yuan (2004) discovered that pre-task planning is the best planning condition to improve students' written fluency and on-line planning is language complexity, the results obtained from their study generally showed that planners do have more advantage over non-planner in producing written narratives (except for the measure of lexical variety which showed no difference across the three groups). This study is also one of the primary references for the present study given the research design and methodology were well structured and well operationalised.

Similar to the research conducted by Shi (1998), Shin (2008) conducted a study of how individual and collaborative planning affect the quality of 157 Korean learners' essays. In the study, learners were required to write in both argumentative and expository writing. Even though the study showed no significant mean differences between both planning, the study found that Korean EFL writers' written quality was influenced by planning conditions and proficiency levels.

Relevant studies on second language writing have been carried out in recent years, with slight difference in terms of research design and methodology. Abdollahzadeh and Kashani (2011) researched on the 107 Iranian EFL learners regarding the effects of task complexity on learners' CAF in narrative writing. In their study, they divided the learners into high and low proficiency groups and each of the groups was further divided into Here and Now (low complexity task) and There and Then (high complexity task) groups. Their study revealed that the effects of task complexity towards language complexity and accuracy were significant but not on language fluency, indicating learners produced writing with better accuracy and complexity in the complex task. Furthermore, their research also showed that learners with higher proficiency level were more likely to benefit from the manipulation of task complexity. This study has given an insight to the researcher to be mindful with the complexity of the task used in the present research. Other than that, Piri, Barati, and Ketabi (2012) tried to examine the effects of combining both pre-task planning and on-line planning on the writing on 45 Iranian learners of English. From their study, they discovered that the pre-task planning group outperformed the on-line planning group significantly but did not outperform the combined planning condition group in terms of fluency. However, no significant differences across group were found for the accuracy and complexity measures. Nevertheless, the effects of combining both pre-task planning and on-line planning still need to be examined in future research.

Other than combining planning conditions, Salimi, Parviz, and Hosseini (2012) also tried to combine planning conditions and task complexity in the language accuracy of 50 English language learners from an English institute in Iran. In their research, they found that strategic planning is beneficial in improving learners' language accuracy, regardless in simple or complex tasks. Their research finding was contradictory with Piri, Barati and Ketabi's (2012) and hence, it showed that there is an inconsistency of results obtained from different studies. To explain this inconsistency, more studies need to be carried out in order to prove the effectiveness of strategic planning in L2 language accuracy.

Amongst all the studies conducted in this area, one of the studies which involved the most number of participants was the research carried out by Johnson et.al (2012). In their study, 968 learners of EFL were assigned into different pre-task planning groups, investigating the effects of pre-task planning (idea generation, organisation, goal setting and a condition with both goal setting and organisation) on learners' language fluency, grammatical complexity and lexical complexity in argumentative writing. From their study, they revealed pre-task planning yields different effects in L2 writing than L1 writing because in their study, pre-task planning did not show greater effects on both lexical and grammatical complexity. Nevertheless, they claimed that pre-task planning might have some positive effects in L2 writing. However, the potential effects were too small to be considered significant. Johnson et. al (2012) attributed the ineffectiveness of pre-task planning in their study to the proficiency level of the learners, claiming that pre-task planning would only benefit learners with certain proficiency level of English language. From the surprising findings obtained in their research, the effectiveness of pre-task planning still needs to be justified by conducting more research.

Focusing only on language accuracy, Bagheridoust and Fakoor (2013) conducted a research to investigate how pre-task and on-line planning affect the performance of argumentative writing among 24 learners. Their study indicated that pre-task planning yielded a positive effect in improving learners' accuracy significantly in terms of the percentage of error-free clauses produced in texts. On-line planning seemed to be the best planning condition to enhance accuracy of percentage of correct verb form but there was no statistical significant difference found in comparison to other planning conditions. However, the findings obtained from their study could not be a good representative findings given that the research was conducted using a very small number of samples.

The trend of studying effects of planning in L2 written CAF still continued and from the study carried out by Ghavamnia, Tavakoli, and Esteki (2013), the results were quite similar to the results obtained from Ellis and Yuan's (2004) study. In Ghavamnia, Tavakoli and Esteki's (2013) study, they found that pre-task planning could bring beneficial effects in improving written fluency whereas on-line planning could improve learners' written accuracy. However, their study found that syntactic complexity is influenced more by pre-task planning because from their study, the learners in the pre-task planning group produced more clauses in comparison to its counterpart. Their study

had given confirmation of Ellis and Yuan's (2004) study but still the reasons behind the effects of different types of planning on different constructs of language need to be investigated.

A similar study which studied the effects of pre-task and on-line planning on L2 writing was also conducted by Lin (2013). The study discovered that neither pre-task nor on-line planning had any effect on the 75 non-English major freshmen's accuracy and syntactic complexity of compare/contrast type of essays. In Lin's (2013) study, it was also discovered that pre-task planning had a beneficial effect on lexical complexity and repair fluency. The study also found that both planning conditions had a negative effect in learners' speed of writing.

Other than this, the research conducted by Abdollahzade and Taak (2014) examined the effects of planning time in the quality of writing which was measured analytically based on content, organisation, vocabulary, language use and mechanics. In their study, the planning time was provided with different lengths (no planning time, 5 minutes and 10 minutes). The results of their study indicated that planners had better advantage than non-planners in writing and the planners who had the longest duration for planning (10 minutes in their study) performed the best in expository writing. Their research has provided an insight to other researchers and language teacher to allocate appropriate duration of time for the learners to plan prior to writing in order to obtain the best writing performance from the students.

To date and to the researcher's knowledge, the most recent research carried out in relation to planning conditions in writing is the study carried out by Yi and Ni (2015). Their study investigated the effects of pre-task planning and on-line planning on the syntactic complexity, lexical complexity, accuracy and fluency of 31 university students' argumentative writing. The results of their study showed that pre-task planning had a positive effect on lexical complexity whereas on-line planning enabled writers to write more fluently. Moreover, their study indicated that both planning conditions had no significant effect on accuracy and syntactic complexity.

Besides the aforementioned research described in a chronological order, studies of planning on the quality of writing have been carried out in Malaysia in recent years. For instance, Sim (2010) carried a research on 30 Malaysian undergraduate students in their narrative writing. The students performed the narrative writing task under no planning, pre-task planning or on-line planning conditions. In her study, Sim (2010) obtained similar results as in Ellis and Yuan's (2004) and Ghavamnia, Tavakoli and Esteki's (2013) studies, showing that pre-task planning increased the language fluency the most. However, mixed results were obtained from the study in terms of complexity measures, indicating that on-line planning yielded the most number of verb form and pre-task planning had little effects on language accuracy. Nevertheless, Sim (2010) did not analyse the data beyond the descriptive statistics measures and therefore, the significance of the relationship between the variables could not be determined adequately.

Besides Sim's (2010) study, Seyyedi, Mohamed Ismail, Orang, and Nejad (2013) carried out a research on 50 first-year undergraduate students in a Malaysian university. In the research, students were assigned into two groups: planned and unplanned. Their study revealed that planning was beneficial in improving students' lexical complexity, accuracy and fluency and the differences were significant except for the accuracy measures. With the results from their study, they provide an overall picture of how tertiary school students in Malaysia would perform when they were provided with the opportunity to plan before performing writing tasks.

From the studies obtained from the late 1980s until recent years, it is evident that the study regarding the effects on planning in language production is still an ongoing inquiry. This can be seen clearly from the inconsistency of the findings regarding the effects of planning in the CAF of language production. Except for the measures of fluency which majority of the research supported the positive relationship between pretask planning and language fluency, measures of other language constructs such as language accuracy and language complexity and their relationship with planning still remains as unsolved questions. The inconsistency of findings found from the previous studies calls for the need of more empirical studies to investigate this topic. Therefore, the present study wishes to find an answer for the question out of the inconsistency of findings drawn from previous studies. In this section, the researcher has presented various studies which employed different task types, genres and planning conditions. The purpose of presenting these studies was to highlight how learners may perform differently in different task types, genres and planning conditions and these factors should also be considered while selecting the suitable task types, genre and planning conditions to be employed in the present study.

2.5 Research Related to Learners' Perceptions and Task Performance

In comparison with the studies on the effects of planning on performance, studies which investigated learners' perceptions of planning processes are relatively fewer. In studies carried out by Ellis and Yuan (2004) and Li, Chen and Sun (2015), the investigation of learners' perceptions only served as a subsidiary aid in interpreting the main results, i.e. learners' performance in each planning condition. The investigation on learners' perceptions also helped them to see whether learners' perceptions had connection with their actual performance. In Ellis and Yuan's (2004) study, they

conducted an open-ended questionnaire survey which intended to explore the learners' feelings on the task as well as how they approached the writing task. For the perception part of their questionnaire survey, the findings revealed that learners did not feel anxious whilst performing the written task. However, it was reported that the learners in the pre-task planning and no planning groups felt some time pressure to complete the task. In a more recent study conducted by Li, Chen and Sun (2015), the participants in their study answered a questionnaire form which contained questions on the effects of planning conditions of their performance. The results from Li, Chen and Sun's (2015) study showed that most of the participants admitted the positive effects of planning on CAF. However, the task used in their study was an oral task. Moreover, a multiplechoice questionnaire survey conducted by Jeon et. al. (2014) which was carried out to investigate affective factors related to L2 writing indicated that learners' perceptions on language were not related to their actual proficiency level and learners' with higher language proficiency tended to have higher anxiety on their writing. Nevertheless, the study conducted by Jeon et. al. (2014) had no relation with planning conditions which are the important variables in the present study.

2.6 Identified Research Gaps

The present study aims to address the research gaps identified from the previous studies. First of all, from the available literature, it is evident that the findings regarding the effects of planning on CAF are still inconsistent. In the present study, the researcher carries out the research based on the study of Ellis and Yuan (2004) due to the adaptability of the research. The research design drawn from Ellis and Yuan's (2004) study also fulfils the empiricality of research which is needed to address the present research gaps. Second, the available literature also shows a scarcity of research carried out among young learners. Most of the previous research was carried out in tertiary school contexts and hence, there might be a possibility that the effects of planning on young learners' writing are different than the adult writers'. The present study serves as a necessary platform to address this research gap and at the same time, explain the discrepancy found between the findings obtained from adult learners and young learners.

Third, the reviewed literature also displayed a lack of relevant research in Malaysian contexts. This concern is in line with the concern of Matsuda, Canagarajah, Harklau, Hyland, and Warschauer (2003), saying that there are still a lot of things to discover in regards to the rhetorical, syntactical and lexical features of different genres of writing by different learners in their distinct contexts. Furthermore, studies carried out by Sim (2010) lacks of statistical power to prove the significance of the relationship between planning and writing quality. Moreover, Seyyedi, Mohamed Ismail, Orang and Nejad's (2013) did not research on on-line planning, leaving the piece of on-line planning remained unresearched in Malaysian contexts. Hence, this study addresses this research gap that calls for the need to research on pre-task planning and on-line planning in a more statistically rigourous and more holistic manner.

Other than that, the present study also attempts to fill in the research gap based on the trend of the studies of planning. From the movement of research from the late 1980s until recent years, it is apparent that the current attention of the studies deals with the effort of finding some consistency in contradiction of findings found from the previous studies. Besides, there were more and more studies carried out in recent years to investigate effects of planning on second language writing in comparison to the years when relevant studies were just newly emerged. Hence, the present study is carried out

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due to the growing concern of researchers in investigating the effects of planning on L2 writing.

2.7 Conclusion

In this chapter, the important constructs and concepts in the present study, such as planning and CAF have been discussed. Besides, this chapter also explained and elaborated the theoretical framework used in the present study. Furthermore, this chapter reviewed previous studies related to the investigated topic and from the reviewed studies; some research gaps have been identified. With the critical discussion of the reviewed literature and the research gaps, the needs and the importance of the present study become clearer. In the next chapter, the methodology used to carry out the present study will be discussed.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

In this research, the effects of planning conditions in the language performance of Chinese primary school students were examined. The language performance of Chinese primary school pupils was analysed in terms of complexity, accuracy and fluency (CAF).

In any research, methodology is an important aspect which ensures the research is carried out properly. Thus, this chapter provides a detailed description of how the present study was carried out. The details of the study such as the participants, variables, research design, tasks, instrumentation, data collection methods and data analysis methods will be presented in this chapter.

3.1 The Pilot Study

Prior to the present study, a pilot study was carried out to test out the methodology and the instruments employed in the present study. The pilot study was carried out in a smaller scale, which involved a smaller number of participants. The pilot study aimed to:

a) obtain an earlier overview of how planning conditions affect the language performance of Chinese primary school pupils in terms of CAF.

b) examine the appropriateness of data collection methods and instruments to investigate the effects of planning.

3.1.1 Participants in the Pilot Study

The pilot study was carried out with a smaller number of participants. They were 33 Chinese primary school pupils in Year 6 with the average age of 12. To the researcher's knowledge, all of the pupils involved in this pilot study were from Chinese background whose first language is either Mandarin or local Hokkien dialect. English language is the pupils' second language. The researcher considered English language is the participants' second language based on the statement by Mitchell, Myles and Marsden (2013) that 'second languages' are the languages learned after the acquisition of the first language. Hence, a 'second language' may be a person's third, fourth or fifth language (Mitchell, Myles and Marsden, 2013). Furthermore, it is important to note that the researcher would refer the participants as young learners, as they were below 18 and fulfilled G. Ellis' (2013) definition of young learners as children below 18 years old.

3.1.2 Procedures of the Pilot Study

The participants were equally assigned into three groups: pre-task planning (PTP), online (OLP) and control group (NP) based on their proficiency level in their school English language evaluation. The instruments used in the pilot study included a writing task (a story consisted of 3 pictures provided with keywords) and questionnaire. The task used in the pilot study was adapted from the UPSR trial exam question from the Johor State Education Department (see Appendix 1).

In the pre-task planning group, the participants were provided with 7 minutes of pre-task planning time and 10 minutes for task performance. Participants from the online planning group were given unlimited time to write the written narrative without performing pre-task planning. The participants in the control group were provided with 17 minutes of writing time without performing any pre-task planning. In the pilot study,

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pupils in all the groups used the same task sheet as appended in Appendix 1. The measurements of CAF in the pilot study are as follows:

- 1. Fluency
 - a) Syllables produced divided by the time (per minute) used to perform the writing task.
- 2. Complexity
 - a) Syntactic complexity: by dividing total number of clauses by T-units. According to Hunt (1970), a T-unit is one main clause attached or embedded with subordinate clause or nonclausal structure. In other words, a simple or complex sentence would be considered as one T-unit, whereas a compound sentence would be two or more T-units, depending on the number of main clauses embedded in the sentence (Hunt, 1970).
 - b) Syntactic variety: total number of different grammatical verb forms used in the task.
 - c) Mean segmental type-token ratio (MSTTR): ratio of total number of different words to the total number of words in the segment (40 words). Means scores obtained from each segment will be added and divided by number of segments.
- 3. Accuracy
 - a) Error-free clauses: the percentage of clauses that do not contain any syntactical, morphological and lexical choice errors.
 - b) Correct verb forms: the percentage of accurately used verbs which includes the use of tense, aspect, modality and subject-verb agreement.

After performing the writing task, the participants filled in the questionnaire forms and answered a few open-ended oral questions. The collected data was analysed using one-way ANOVA (analysis of variance) tests. The software used to analyse the data was SPSS (Statistical Package for Social Science), version 16.0.

3.1.3 Results of the Pilot Study

The results of the pilot study showed that PTP had the greatest impact on young learners' writing in terms of fluency and the difference of the mean score obtained by the PTP group was significant in comparison with the OLP and NP groups. However, the results showed in the complexity measures were more complicated. From the measure of syntactic complexity, it seemed that the NP group yielded more complex sentences in comparison with other groups and the difference was significant. In terms of syntactic variety, the PTP group appeared to be a group which produced grammatical verb forms with greater variation in the task but the difference in comparison with other groups was not significant. The result obtained from the MSTTR also favoured the PTP group in comparison with other groups and the difference was almost significant. For both the accuracy measures, the results indicated that PTP was the best condition to produce accurate writing. However, the scores obtained by the PTP groups.

From the questionnaire survey, it was found that pupils from the planning groups had fewer mental processes to engage with whilst performing the writing task. Pupils from the PTP group also displayed more confidence with their performance in writing, even though all the mean scores obtained from all items did not show any significant difference across groups. From the questionnaire survey, the researcher explained that the pupils felt they were given more advantage as they were given extra time to plan the task and it boosted the pupils' confidence on their writing. From the reliability analysis, all the items used in the questionnaire obtained alpha values which were higher than 0.7 in the measure of cronbach alpha, indicating that those items were of acceptable reliability.

3.1.4 Suggestions for the Main Study

Upon the implementation of the pilot study, the researcher discovered some weaknesses which could be improved in the main study. First of all, there should be more participants in the main study so that the findings found from the main study are more generalisable. Second, the measurement of fluency can be enriched by adding in another measure, number of dysfluencies. The measure can be accomplished by counting the number of reformulated words and divide it by the number of produced words. Third, the researcher found a need to include more questions in the interview session to confirm and strengthen the results obtained from the questionnaire.

3.2 The Main Study

Drawing from the suggestions from the pilot study, the present study was carried out with some amendments in terms of instrumentation, procedures and methodology. The details of the main study will be discussed in the following sections.

3.2.1 The Participants

In the main study, 78 participants studying at a Chinese primary school in Klang district, Selangor were selected. Most of the participants come from Chinese background and their L1 is either Mandarin Chinese or the dialect of Hokkien in Chinese. However, there are four pupils from the participants whose L1 is Malay language. The researcher selected a Chinese vernacular school for the present study due to the linguistic challenge that the Chinese school pupils need to face. They need to master three languages, i.e. English, Malay and Mandarin and in their English language writing, they cannot apply certain rules in Mandarin and Malay (Darus & Ching, 2009). Generally, English language is the L2 of these pupils as Mitchell, Myles and Masden (2013) claimed that a second language is any language learned later than the acquisition of the first language. Other than this, the participants were considered as young learners as they were at the age of 12 in average and fulfilled G. Ellis' (2013) definition of young learners (children below 18 years old).

The participants in the main study were selected from Year 6 classes in the aforementioned Chinese primary school based on the rationale that they were more familiar with the task compared to other age group of pupils as they had been exposed to this task format for at least 3 years and they could elicit more output for analysis. The language proficiency of pupils who participated in the main study ranged from lower-intermediate (50 marks to 60 marks) to high proficiency pupils (80 marks and above). The reason for omitting pupils with basic level of proficiency was to ensure learners' language output could be obtained adequately for analysis. Hence, the sampling method employed in the present study is purposive sampling as the participants were selected based on their proficiency level. It is a deliberate selection of participants due to the qualities they possess (Etikan, Musa & Alkassin, 2016).

To determine the level of language proficiency of the pupils, the pupils were selected based on the performance of their UPSR trial exam. All of the pupils who participated in the present study obtained scores higher than 50 marks in their UPSR trial exam. Other than that, the pupils were also assigned into PTP, OLP and NP groups based on their examination marks to ensure that all the pupils in each group had the same distribution of pupils with high, intermediate and lower-intermediate proficiency
levels. In the present study, there were 9 pupils with high proficiency, 53 with intermediate proficiency and 16 pupils with lower-intermediate proficiency levels. To distribute the pupils equally into three groups, the pupils were ranked according to their marks in the trial exam and were assigned to the PTP, OLP and NP groups in a zigzag manner. For instance, the first to the third ranked pupils were assigned to the PTP, OLP and NP groups and the forth to the sixth were assigned to the NP, OLP and PTP groups. The same pattern of participants' assignment of group was done to the 78th participant in the present study.

3.2.2 Variables

In the main study, the independent variable was the planning conditions which pupils attended as they performed the note expansion task. The dependent variable was the language performance of the pupils, i.e. CAF.

The planning conditions used in the study are pre-task planning (PTP), on-line planning (OLP) and no planning (NP). The measures of CAF used in the present study are described as follows:

1. Fluency

- a) Syllable per minute: It is a measure of fluency done by counting number of syllables produced divided by time (minutes) used to complete the writing task.
- b) Word reformulation: It is defined as the number of reformulated words divided it by the number of produced words. In order to obtain the reformulation of the words correctly, the pupils were forbidden to use

erasers or correction liquid to correct their writing. Instead, they had to strikethrough the word, phrase or sentence that they wanted to rectify.

- 2. Complexity
 - a) Syntactic complexity: The syntactic complexity of learners' language can be calculated by finding the ratio of clauses to T-units. A T-unit is a language production unit which consists of one independent clause with its attached dependent clause(s). In the case of compound sentences, they contain two or more T-units (Richards & Schmidt, 2002). It is a term coined for measuring and analysing written language.
 - b) Syntactic variety: Syntactic variety is defined as the total number of different grammatical verb forms used in language production. In this research, the grammatical verb forms such as tense (e.g., simple past, past continuous), modality (e.g. should, have to) and voice (e.g. passive voice in the past) are taken into account in the calculation of syntactic variety. It is considered as a measure for morphological complexity according to Housen, Kuiken and Vedder (2012).
 - c) Mean segmental type-token ratio (MSTTR): For the written narratives produced by the learners, MSTTR was obtained by finding the ratio of total number of different words to the total number of words in the segment (40 words). After that, means scores obtained from each segment were added and divided by number of segments. It is a measure used to measure lexical complexity.
- 3. Accuracy
 - a) Error-free clauses: This measure is operationalised as the percentage of clauses that are free from syntactical, morphological and lexical choice errors.

b) Correct verb forms: It was counted by calculating the percentage of accurately used verbs which includes the use of tense, aspect, modality and subject-verb agreement.

The researcher selected these constructs for the present study due to different rationales. The two measures for the fluency measures were chosen for the reason to evaluate pupils' speed in writing as well as the dysfluency occurred in their writing.

Other than this, the three measures of complexity selected in the present study could be used to measure the grammatical and lexical aspects in pupils' writing. In the present study, the researcher did not investigate the interactional, propositional and functional aspects of complexity as listed by Ellis and Barkhuizen (2005) due to the consideration of the task used in the present study. The researcher did not need to investigate these three aspects as the task was a narrative written task provided with helping words, the researcher did not need to count the number of turns, idea units and frequency of language functions as needed in measuring these three aspects. Furthermore, the three measures selected for the present study are able to evaluate the syntactical, morphological and lexical aspects of pupils' written complexity, thus evaluating pupils' linguistic complexity more holistically besides addressing the concern that morphological complexity is rarely researched in previous studies, as mentioned by Bulté and Housen (2014).

Moreover, the researcher chose the two accuracy measures in order to evaluate pupils' written accuracy holistically and examine their accuracy specifically in the use of verb forms. The researcher specifically looked into the use of verb forms as according to Rozovskaya, Roth and Srikumar (2014), errors in verb forms are some of the most general but least studied mistakes made by L2 writers. In order to avoid other mediating variables affecting the findings of the present study, the pupils were not given any exposure to the constructs of CAF. However, they were taught to use complex sentences and check their grammar in order to score higher marks in their compositions.

3.2.3 Research Design

The present study examines the writings produced by 78 participants with the language proficiency ranges from lower intermediate to high language proficiency levels. They were divided into Pre-task planning (PTP), On-line planning (OLP) and control/ no planning (NP) groups. The task conditions and the allocation of time allocated for each group are tabulated in Table 3.1.

Planning Condition	n Pre-task		On-line	Time for
		Planning	Planning	Writing
Pre-task Planning (PTP)	26	10 minutes	10 minutes	20 minutes
On-line Planning (OLP)	26	None	Unlimited time	Unlimited time
No Planning (NP)	26	None	20 minutes	20 minutes

Table 3.1. Time allocated for each planning condition

The present study is a mixed methods research which adopts the triangulation design. Triangulation is defined as the combination of methodologies to study the same phenomenon (Denzin, 2009). Triangulation design is adopted for the present study as the design is used when a researcher intends to justify or elaborate quantitative results with qualitative data (Creswell & Clark, 2007). The design of the present study is replicated from Ellis and Yuan's (2004) study which consisted of quantitative and

qualitative phases. In the quantitative phase, a quasi-experiment consisted of a post-test was conducted where the learners were divided into three different planning conditions before performing the writing task. There was only one post-test carried out in the present study because this research intends to compare the differences between the experimental groups (PTP and OLP groups) and the control group (NP group). This is followed by the second phase of the quantitative data collection, where the researcher administered two sets of questionnaires to the learners. In the qualitative phase, an interview was carried out with three pupils from each group. A conceptual framework for the research design in this study is presented in Figure 3.1.



Figure 3.1 Conceptual Framework for the Design of the Present Study

Furthermore, the participants in the present study were divided into three planning condition groups: PTP, OLP and NP. The operationalisation of the writing processes involved in each group, as described in Kellogg's (1996) terms, is presented in Table 3.2.

Planning Conditions	Subprocesses involved	Components of Working Memory used
Pre-task Planning (PTP)	Translating Programming Executing	Central Executive Phonological Loop
On-line Planning (OLP)	All the subprocesses in Kellogg's (1996) model	Visuospatial Sketchpad Central Executive Phonological Loop
No Planning (NP)	All the subprocesses in Kellogg's (1996) model	Visuospatial Sketchpad Central Executive Phonological Loop

Table 3.2. Operationalisation of the writing subprocesses for all planning conditions

To create the time pressure for the pupils in the no planning group, the researcher reduced the time used to complete the note expansion task (20 minutes) in comparison to the time the pupils use to complete their note expansion task in the actual examination (35 minutes). Creating the time pressure for the pupils in completing the task was to investigate the effects of time pressure on the no planning group and OLP group. Even though the time given by the pupils in OLP group was unlimited, the pupils had to submit their paper as long as they finished it and the time they needed to complete the task was recorded. For the pupils in the OLP group who did not finish the task within the experiment time (which was about 60 minutes), their papers were collected by the end of the experiment. Those papers were timed from the moment those pupils started writing until the time their papers were collected.

In the meantime, pupils in the pre-task planning group were given only 15 minutes to write but other than this, they were given 5 minutes to plan the task. The total time provision allocated to the pupils in the PTP group was equal to the NP group. The reason for this timed assignment was to ensure the time provision was fair for both the PTP and NP groups and PTP did not take advantage over any extra provision of time. Moreover, pupils in the PTP group were given 5 minutes to plan so that they had ample time to write in the task. Other than that, the planning sheet of the pupils were taken away from them when they wrote so that pupils would formulate their own sentences without looking at the sentences they formed when they filled in the planning sheet. The planning sheets of the pupils were also analysed to examine whether the pupils attended to strategic planning or task rehearsal while performing pre-task planning.

3.2.4 The Task

The task employed in the present study was a note expansion task adapted from the actual UPSR English language paper in 2012. The task consisted of three pictures and key words (5-6 words) were provided under each picture. The note expansion task was about an incident describing how a boy got injured when he was flying kite with his friends. In the note expansion task, pupils were advised to use the words provided to describe each picture. The pupils also encouraged to write as long as they could within the provided time. As mentioned in the previous section, pupils in the pre-task planning group were given 5 minutes to plan and 15 minutes to write. Pupils in the on-line planning group were allowed to spend as much time as they needed to perform the task and the time they spent in performing the task was recorded. Besides, pupils in the no planning. The

task sheets used by the pupils in the PTP, OLP and NP groups are appended in Appendix 2, Appendix 3 and Appendix 4.

3.2.5 Instruments Used in the Study/ Data Collection Methods

In the present study, there were five important instruments used in obtaining the data needed. The first instrument used in the present study was the note expansion task sheet, which was mentioned in the previous section. Analysing the note expansion task performed by the pupils would provide the answers for RQ1, which were to determine whether PTP and OLP are beneficial to young learners' L2 writing and also to pinpoint which planning condition is the best for L2 young writers. The second instrument used in the present study was a questionnaire form where the pupils had to rate 13 statements given in the questionnaire form using a 5-point likert scale. The second instrument aimed to answer RQ 2, which was to examine how pupils attend to the narrative writing task from the perspective of Kellogg's (1996) model. The third instrument employed in the present study was another questionnaire form consisted of three sections. Each section of the questionnaire form contained statements regarding pupils' thoughts about their performance in each CAF construct. This instrument answered RQ 3, which was related to the perceptions of the pupils towards their performance in terms of CAF. This instrument also served to explain the link between planning and the perceptions of the pupils. From that, it might provide some insights whether planning affects pupils' psychological perceptions about their performance, even though the actual performance might not reflect how they perceived about their performance.

Other than this, an interview was also carried out with the participants to answer RQ 2 and RQ 3. The purpose of having the interview session was to obtain more data about how the pupils attended to the writing task which could not have been obtained

adequately from the first questionnaire form. Lastly, the planning sheets used by the pupils in the PTP group were also collected to examine the pre-task planning strategies they employed before they performed the actual narrative writing task. The result analysed from the analysis of planning sheets could be used to describe how pupils from the PTP group approach to the writing task, which is related to RQ 2.

The researcher designed the questionnaire and interview questions following a few steps. Prior to the development of questions, the researcher identified the information needed to obtain via the questionnaire and interview sessions, i.e. learners' mental processes to approach the task and learners' perceptions of their performance. Then, the researcher listed out the important constructs that needed to be included in the questionnaire and interview. By adapting the questionnaire based on Ellis and Yuan's (2004) study, the questions used in the questionnaire and interview were rephrased and translated into Mandarin in order to suit the comprehension level of primary school learners. After this, the questions used were checked and reordered for the convenience of analysis after data collection. Based on the pilot study, it was found that there was a need to have more questions included in the questionnaire and interview in order to obtain richer information from the participants. The sample of the questions used in the questionnaire and interview in order to subtain richer information from the participants. The sample of the questions used in the questionnaire and interview are attached in Appendix 5, Appendix 6 and Appendix 7.

3.2.6 Data Analysis Methods

The data collected from the pupils from each planning condition group was analysed using the CAF analytical framework as employed by Ellis and Yuan (2004). After analysing the texts qualitatively, basic descriptive analysis and also one-way ANOVA (analysis of variance) were used to quantify the qualitative data. The collected data was analysed using the SPSS (Statistical Package for Social Science) software, version 16.0. From the analysis using SPSS, the researcher could evaluate the effects of planning of pupils' CAF in writing by examining whether significant differences of pupils' performance were manifested across groups. Besides that, the data collected from both questionnaire forms was also analysed using the same quantitative method in order to examine whether pupils in different planning conditions employ different cognitive strategies and also to investigate the pupils' perceptions on their performance after performing the task in three different planning conditions.

Apart from that, the data collected from the interview sessions were analysed using content analysis method. The data was analysed thematically in order to identify the cognitive strategies the pupils used and the beliefs the pupils held when performing the narrative writing task. The thematised contents of the interviews were later analysed by counting the frequency of the occurrences of the thematised words in the interviews. In order to do this, the researcher used different codes to mark learners' response in the interview transcripts. The codes were developed based on the mental processes listed in Ellis and Yuan's (2004) study and also the constructs of CAF. The list of codes used in the interview is attached in Appendix 8.

Furthermore, the data collected from the planning sheets were categorised into two groups, i.e. task rehearsal and strategic planning, according to the two major types of pre-task planning proposed by Ellis (2005). The number the pupils who performed task rehearsal and strategic planning were compared with the purpose of investigating pupils' preference when they perform pre-task planning.

From the collection to the analysis of data, the data collected from learners' writings and the interview were analysed qualitatively and later represented quantitatively. The analysis of learners' writing was done based on the CAF framework and the data of the interview was coded based on the list of codes listed in Appendix 8.

To make sense of the analysis, the analysed data based on the CAF framework and coding is statistically represented. The statistical method used to analyse learners' writings is one-way ANOVA. Frequency count and percentage are also used to represent interview data quantitatively. According to Ward (2007), quantifying qualitative data enables numbers to 'speak' for the data. Therefore, the qualitative data collected from the note expansion task, questionnaire forms and interview was quantified to enhance our understanding of data.

3.2.7 Addressing the Validity and Reliability Issues of the Present Study

To address the validity and reliability issues in the present study, a few measures were taken rigorously. First of all, the present study replicated its design and instruments according to Ellis and Yuan's (2004) study. According to Heffner (2015), replication is crucial to establish validity and reliability, determine research generalisability and the role of extraneous variables, apply results to real world situations and inspire new research.

Another measure which the researcher took was to pilot the questionnaire instruments which were used in the present study. In the field of applied linguistics, piloting instruments helps researchers to rehearse the use of instruments, examine the practicality of data collection methods, discover possible problems before implementing the actual study and improve the validity and reliability of the instruments (Rungruangthum, Todd & Aroonmanakun, 2011). The pilot study done in the present study also served the aforementioned purposes.

Other than that, the reliability of the questionnaire items were also tested by calculating their Cronbach's alpha. It is a reliability measure developed by Lee

Cronbach in 1951 to determine the internal consistency of test items (Tavakol & Dennick, 2011). A desirable alpha value which shows acceptable reliability of an item should be higher than .7 (Pallant, 2005). The items which had alpha values lower than .7 were rejected for the use of the present study.

Lastly, the present study also adopted triangulation data collection methods to enhance the validity and reliability of the present study. In accordance with Holtzhausen (2001), triangulation is a useful solution for researchers to obtain valid and reliable data. With the triangulation of methods, the data collected would be richer and less biased. In the present study, triangulating the data collection methods also help the researcher to view the data in different vantage points so that more reliable results could be obtained from the samples.

3.3 Conclusion

This chapter presented the participants, variables, research design, task, data collection and analysis methods, as well as the ways to address validity and reliability issues. Furthermore, this chapter also reported the pilot study conducted which contributed to the improvement for this research. The methodological aspects of the study have been structured in a rigorous manner in order to achieve the research objectives of this research. The research design of the present study is similar with previous studies, such as studies by Ellis and Yuan (2004), Sim (2010), and Piri, Barati and Ketabi (2012) in terms of the data collection and analytical methods but the task, questionnaire forms and interview questions were adapted for the use of young learners. In the next chapter, the results from the data analysis will be presented in details.

CHAPTER FOUR: RESULTS OF PLANNING EFFECTS

4.0 Introduction

In this chapter, the results obtained from the pupils' from the data collection methods listed in Chapter Three are presented. These results answer the research questions stated in the first chapter.

The data of this study was collected from 78 pupils' written texts under different planning conditions. In addition, data was also collected from two questionnaire surveys and interview sessions. The data of pupils' written texts was analysed using the CAF analytical framework as employed by Ellis and Yuan (2004). After that, the data was analysed using statistical methods such as descriptive statistics and One-way ANOVA. The data of both questionnaire surveys was also analysed using descriptive analysis and One-way ANOVA whilst content analysis was used to analyse data obtained from interviews.

4.1 Results of Independent Variables

The independent variables involved in this research are the time allocated and the number of words and syllables produced by pupils in the three different planning conditions. The analysis of independent variables is presented in Table 4.1. In the analysis, the three aforementioned variables are compared in terms of means, ANOVA and Scheffé procedures.

Independent	Means of planning		ning	ANOVA		Location of significance:		
variables	conditions					Scheffé p		
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-
						OLP	NP	NP
Length of time (min.)	20	19.077	20	1.149	.322	.426	1.000	.426
Words	101.731	113.692	104.615	.908	.408	.438	.953	.621
Syllables	127.077	144.115	131.423	1.154	.321	.349	.933	.555

 Table 4.1. Analysis of independent variables

The results of the analysis of independent variables show that pupils in three planning conditions spent similar amount of time to perform the task given, and surprisingly, pupils in the OLP group took shorter time (M = 19.077) to complete the task despite the fact that they were asked to perform the task without any time limit. However, from the analysis of number of words, the OLP group obtained the highest mean score (M = 113.692) in comparison to other groups although the group used the shortest time to complete the task. Furthermore, the OLP group also produced the most number of syllables (M = 144.115) in comparison to other groups.

In contrast with the OLP group, the PTP group used slightly longer time than OLP group to complete the task, as they used 5 minutes to plan the task and 15 minutes to perform it. As the provision of time for them to produce the actual writing was only 15 minutes, PTP group produced the least number of words (M= 101.731) and syllables (M= 127.077) across groups.

Similar to the PTP group, the NP group spent 20 minutes to complete the task without pre-task planning. The mean scores of the number of words (M = 104.615) and syllables (M = 131.423) obtained by this group are slightly higher than the PTP group and lower than the OLP group.

Nevertheless, the analysis of independent variables shows that in the comparison of mean scores across three planning conditions, the difference between the mean scores was not significant. From that, it can be assumed that all groups were given the fair treatment even in the provision of time, because the average time used for the OLP group was not significantly different than the other groups. The only element that is different across the group might be the cognitive state of the pupils while performing the task.

4.2 **Results of Dependent Variables**

4.2.1 Complexity

The measurement of complexity can be examined from five distinct aspects: 1) interactional, 2) propositional, 3) functional, 4) grammatical and 5) lexical (Ellis & Barkhuizen, 2005). For the purpose of the present study, pupils' written language complexity was examined based on its grammatical and lexical aspects only, based on studies by Crookes (1989), Mehnert (1998), Ellis and Yuan (2004) and Piri, Barati, and Ketabi (2012).

The measurement of pupils' language complexity consists of three parts; two of them focus on the grammatical aspect of pupils' writing and one of them focuses on the lexical aspect of writing. First, the present study examines the syntactic complexity of learners' writing which takes account of the number of subordination of the sentences they made. The result of pupils' syntactic complexity is presented in Table 4.2.

Location of significance:		
Scheffé p		
PTP-NP	OLP-NP	
.973	.933	
	n of signif Scheffé ρ PTP-NP .973	

 Table 4.2. Analysis of learners' syntactic complexity

From the result presented in Table 4.2, the OLP group (M = 1.1, SD = .093) appears to be the group which yielded the highest mean score in terms of sentence subordination. The mean score of the OLP group is closely followed by the PTP group (M = 1.090, SD = .114), and further followed by the NP group (M = 1.090, SD = .085). From the overall analysis, the result shows that both planning groups outperform the non-planning group. Nevertheless, there is no significant difference shown in any of the comparison of mean scores. The one-way ANOVA test shows that both planning conditions have little impact on the pupils' ability to make sentences with more subordination. Extract 1 shows the examples of sentences yielded by the three groups of pupils which show high and low syntactical complexity.

Extract 1

a) PTP:

Amin and his friends love to make kites. (Low syntactical complexity: 1 Tunit and 1 clause)

b) OLP:

Ali, who is a playful boy, likes flying kites. (High syntactical complexity: 1 T-unit and 2 clauses)

c) NP:

Ali and his friends like to fly kites. (Low syntactical complexity: 1 T-unit and 1 clause)

Second, this study also investigates pupils' syntactic variety under different planning conditions. In analysing this aspect, pupils' use of different grammatical verb forms, including tenses, modality and voice was taken into consideration. The result of pupils' syntactic variety in each planning condition is presented in Table 4.3.

		5		5	5					
De	pendent	M(S)	M (SD) of planning			ANOVA		Location of significance:		
V	ariable		conditions	8				Scheffé p		
		PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP	
							OLP	NP		
Sy	ntactic	13.538	14.654	14.000	.488	.616	.619	.921	.847	
V	^v ariety	(4.254)	(3.577)	(4.391)			$\langle () \rangle$			

 Table 4.3. Analysis of learners' syntactic variety

The analysis indicates that the OLP group produced the most number of syntactic variety (M = 14.654, SD = 3.577). The NP produced slightly lower number of different grammatical verb forms in comparison to the OLP group (M = 14.654, SD = 3.577). Moreover, the result of the one-way ANOVA test indicates that the PTP group demonstrated the least variation of grammatical verb forms compared to other planning conditions (M = 13.538, SD = 4.254). Similar to the result obtained from learners' syntactical complexity, the differences of mean scores across groups are not significant ($\rho = .616$). This implies that planning conditions have little impacts on pupils' syntactic variety. The examples of short paragraphs from the OLP, PTP and NP groups are presented in Extract 2.

Extract 2

a) PTP:

Last week, Ali and his friends <u>went</u> to a field near his house. They went to field for flying kites. The wind <u>was</u> very strong. The string of the kite <u>was broke</u>. The kite <u>landed</u> on a tree. (Number of different verb forms: 4)

b) OLP:

Jack <u>is</u> a careless boy. Last Sunday <u>was</u> a windy day, he and his friends <u>were</u> <u>flying</u> kites on the field happily. All of a sudden, Jack's kite <u>was blew</u> by the strong wind and <u>landed</u> on a tree. (Number of different verb forms: 5)

c) NP:

Last Saturday, Ali and his friends <u>were flying</u> their kites in the field. The wind of that day <u>was</u> strong. Ali's kite's rope <u>was broke</u> and <u>landed</u> on the tree. (Number of different verb forms: 4)

Third, this research also investigates the pupils' language complexity in lexical level. The present study employs the use measurement of the average type-token ratio in each segment (MSTTR) which calculates the average number of different words used in different segments (in the present study, each segment consisted of 40 words). The aim of using MSTTR in the present study is to investigate the richness of pupils' lexical use under different planning conditions. The result of pupils' lexical complexity under different planning conditions is tabulated in Table 4.4.

Dependent	M(S)	M (SD) of planning			OVA	Location of significance:						
variable	(condition	S			Scheffé p						
	PTP	OLP	NP	F	ρ	PTP-OLP	PTP-NP	OLP-NP				
Lexical Variety	.772	.783	.772	.514	.600	.676	1.00	.687				
(MSTTR)	(.041)	(.047)	(.042)									

Table 4.4. Analysis of learners' lexical variety

The result tabulated in Table 4.4 shows that pupils in the OLP group (M = .783, SD = .047) produced more different words in comparison to the other two counterpart groups. Other than that, there is no difference of mean scores between the PTP group's (M = .772, SD = .041) and the NP group's (M = .772, SD = .042) mean segmental type-token ratio. However, the comparison of mean scores indicates no significant difference across all planning condition groups in the measurement of MSTTR. The examples of

how MSTTR was calculated for all the three groups are presented in Extract 3. Each segment presented in Extract 3 consists of 40 words and the strikethrough words are the words repeated in the segment.

Extract 3

a) PTP:

Last Saturday, Ali and his friends went to the big field for flying kites. On that day was a wind day. Suddenly, Ali's kite wire broken and the kite landed on a big tree.

Ali climbed up to the tree (Segmental type-token ratio: 29/40 = .725)

b) OLP:

get his kite. When Brandon =climbed up the tree, the branch broke and he fell down on the ground. He felt very painful and he cried.

=After an hour, Brandon's friends came to the hospital to visit him. They bought (Segmental type-token ratio: 32/40 = .8)

c) NP:

One day, Brian and his friends are flying kites in a more wind day. Suddenly, Brian's kite was landed on tree.

He climbed up the tree to get his kite. He stepped on a branch = and the branch broke. Brian (Segmental type-token ratio: 29/40 = .725)

Even though there was no significant difference found in all the analysis of pupils' language complexity, it was still apparent that the OLP group has the highest mean scores in the analysis of all the language complexity aspects investigated in this study. Mixed results were found between the PTP and the NP groups as in certain aspects, one group outperformed the other and vice versa. To conclude the analysis of language complexity, OLP seems to be a favourable condition for the pupils to produce more complex and variable writing. The ability to produce more complex texts is very important because it is closely related to pupils' working memory capacity and language knowledge (Hudson, 2009). Hence, the complexity of a learners' language may directly or indirectly reflect their language competency.

4.2.2 Accuracy

The analysis of pupils' accuracy in narrative writing is twofold: one is on the overall mastery of language accuracy and the other specifically focuses on the pupils' use of verb forms. The first measurement is the percentages of error-free clauses, which examines clauses which are free from errors in terms of syntax, morphology and the use of lexis. The second measurement is known as correct verb forms, which evaluates pupils' use of tense, aspect, modality and subject-verb agreement.

The result for the first measure, error-free clauses, is presented in Table 4.5.

Tuble net i ei	contrages of		e enduses p	produced of anec groups of pupils				
Dependent	M (S	ANOVA		Location of significance:				
variable	conditions			Scheffé p				
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-
						OLP	NP	NP
Error-free	70.324	73.577	71.230	.293	.747	.760	.979	.867
Clauses	(14.837)	(15.568)	(16.940)					
		V.						

Table 4.5. Percentages of error-free clauses produced by three groups of pupils

The result shown in Table 8 indicates that OLP (M = 73.577, SD = 15.568) is still the best condition for pupils to produce writing with better accuracy as it produced the highest mean score in the analysis. The second highest score is from the NP group (M = 71.230, SD = 16.940), which is slightly higher than the score obtained by the PTP group (M = 70.324, SD = 14.837). The one-way ANOVA test also indicates that difference of the mean percentages scored by all planning groups is too small to be considered significant. This shows that planning conditions have little effect on pupils' language accuracy in overall. For the measurement of pupils' accuracy on the use of verb forms, the finding is tabulated in Table 4.6. The result displayed in Table 4.6 shows an unexpected result, with the NP group (M = 87.833, SD = 9.049) outperforming both planning groups. In the meantime, the OLP (M = 84.258, SD = 12.538) and PTP (M = 84.111, SD = 12.189) groups scored similar mean percentage. Taking the one-way ANOVA test result into account, the mean scores of all the planning condition groups do not show any significant difference.

	6			1		6 1	1 1		
Dependent	M (SD) of planning			ANOVA Location of signifi			icance:		
variable	conditions				Scheffé p				
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-	
						OLP	NP	NP	
Correct verb	84.111	84.258	87.383	.687	.506	.999	.586	.614	
forms	(12.189)	(12.538)	(9.049)						

Table 4.6. Percentages of correct verb forms produced by three groups of pupils

To conclude this part, the results obtained from error-free clauses and correct verb forms analyses demonstrate mixed degrees of language accuracy across groups, even though there is no significant difference found in any of the analyses. These results infer that planning conditions may have inconsistent effects on different aspects of language accuracy.

4.2.3 Fluency

According to Ellis and Barkhuizen (2005), there are two types of fluency measures: 1) temporal variables, which are linked to the speed of language performance and 2) hesitation phenomena, which are usually identified as the pauses or signs of non-fluent language production. In the present study, both types of measures have been investigated. The first fluency measure used in the present study is syllable per minute and the second measure is word reformulation.

The result obtained from the analysis of syllables per minute in pupils' texts shows that both planning conditions are more favourable condition to produce texts with greater speed. From the result (see Table 4.7), in the measure of syllables per minute, the PTP group (M = 8.472, SD = 2.691) outperformed other two groups. The OLP group (M = 7.756, SD = 2.115) turns out to be the second most fluent group, followed by the NP group (M = 6.571, SD = 2.252). The result of the one-way ANOVA also indicates a significant difference in the comparison of mean scores ($\rho = .017$). To be more specific, the location of significance is found in between the PTP and NP groups (*Scheffé* $\rho = .019$).

Dependent	M (SD) of planning			ANOVA		Location of significance:		
variable	conditions					Scheffé p		
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP
						OLP	NP	
Syllables per	8.472	7.756	6.571	4.282	.017	.553	.019	.203
minute	(2.691)	(2.115)	(2.252)					
	()	X · · · · ·	(· · · /					

Table 4.7. Comparison of mean scores of the measure of syllables per minute

The result from the analysis of word reformulation in pupils' texts also demonstrates similar finding, where both planning condition groups appear to be more favourable conditions in avoiding dysfluencies in text production (see Table 4.8). In both planning groups, the PTP group (M = .066, SD = .071) demonstrates lesser occurrences of language dysfluencies compared to the OLP group (M = .097, SD = .136). Furthermore, the NP group (M = .101, SD = .108) obtained the highest mean score in the analysis. However, similar to most of the analyses, the comparison of mean scores in one-way ANOVA test shows that there is no significant difference of mean scores across groups. Hence, the finding suggests that planning conditions have little effect in avoiding young learners' language dysfluencies.

Dependent	M (SD) of planning			ANOVA		Location of significance:		
variable	conditions					Scheffé p		
	PTP	OLP	NP	F	ρ	PTP-OLP	PTP-	OLP-NP
					•		NP	
Word	.066	.097	.101	.799	.454	.591	.519	.993
reformulation	(.071)	(.136)	(.108)					

Table 4.8. Comparison of mean scores of the measure of word reformulation

From the findings obtained from both fluency measures, both measures suggest that PTP promotes the language fluency of pupils. These findings are in line with the findings obtained by Ellis and Yuan (2004), Johnson, Mercado and Acevedo (2012) and Ghavamnia, Tavakoli and Esteki (2013).

4.3 Results of Questionnaire Surveys

The questionnaire surveys carried out in the present study consist of two parts. The first part of the questionnaire survey aims to investigate how pupils were cognitively engaged in the written task under different planning conditions and to further relate these cognitive engagements to Kellogg's (1996) Model of Process Writing. The second part of the questionnaire survey probes pupils' perceptions on their own performance of the given writing task.

The result of the first part of the questionnaire survey is presented in Table 4.9. From the questionnaire survey, it is apparent that the PTP group spent more focus on sentence construction (M = 2.96, SD = .774), studying keywords (M = 2.92, SD = .935) and adding details (M = 2.92, SD = 1.354). Even though the aforementioned aspects are the aspects with the highest mean scores in the PTP group, the mean scores obtained by the PTP group are actually lower than 3, meaning the responses are in between "neutral" and "agree". The general responses obtained by the PTP group in the questionnaire may indirectly imply that pupils in that group experienced lesser cognitive load in writing the story and hence, less focus was given to any of the cognitive processes listed in the questionnaire survey.

The OLP spent greater attention on sentence construction (M = 3.04, SD = .824), grammar (M = 3.00, SD = 1.020), studying keywords (M = 2.96, SD = 1.148) and adding details (M = 2.96, SD = 1.341). The overall mean scores obtained by the OLP group reflect that the group paid more attention on the language structure.

On the contrary, the NP group focused more on studying keywords (M = 3.08, SD = .891), sentence construction (M = 3.04, SD = .999) and enhancing message clarity (M = 3.00, SD = 1.058). Based on the top three mental processes rated by the pupils in the NP group, the processes selected showed greater diversity of activities, ranging from the translating to editing sub-processes in Kellogg's (1996) model.

To validate the internal reliability of the questionnaire items, a reliability analysis was carried out. From the analysis (see Table 4.10), it is found that the questionnaire survey is acceptably reliable ($\alpha = .760$, N = 12).

		-	-						
Mental	M(SD) of planning			ANC	VA	Locatio	on of signit	ficance:	
activities		conditions	8				Scheffé ρ		
involved	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP	
						OLP	NP		
Arranging Story	2.69	2.73	2.31	1.969	.147	.987	.270	.207	
	(.838)	(.778)	(.928)						
Use of Words	2.73	2.69	2.42	.565	.571	.993	.623	.696	
	(1.218)	(1.087)	(1.102)						
Sentence	2.96	3.04	3.04	.068	.935	.951	.951	1.000	
Construction	(.774)	(.824)	(.999)						
Grammar	2.58	3.00	2.73	1.098	.339	.348	.868	.650	
	(.857)	(1.020)	(1.218)						
Studying	2.77	2.73	2.77	.012	.988	.991	1.000	.991	
Pictures	(1.177)	(1.079)	(.863)						
Studying	2.92	2.96	3.08	.167	.846	.990	.857	.917	

Table 4.9. The result of the first part of questionnaire survey: Pupils' focus in writing

Keywords	(.935)	(1.148)	(.891)					
Translation	1.81	1.92	1.02	060	9/12	956	956	1.000
Translation	(1.357)	(1.495)	(1.294)	.000	.942	.950	.950	1.000
Considering	2.27	2.12	1.77	1.249	.293	.894	.310	.568
Sentence Types	(1.251)	(.993)	(1.243)					
Clarity	2.27	2.42	3.00	3.032	.054	.886	.072	.190
	(1.041)	(1.270)	(1.058)					
Make the Story	2.23	2.38	2.65	.838	.436	.898	.445	.719
Interesting	(1.210)	(1.169)	(1.198)					
Add Details	2.92	2.96	2.81	.093	.912	.995	.953	.918
	(1.354)	(1.341)	(1.327)					
Spelling and	2.08	2.38	2.62	1.292	.281	.659	.283	.791
Punctuation	(1.294)	(1.134)	(1.203)					

From the findings of the first part of the questionnaire, it is clear that pupils in different planning conditions paid different degrees of attention on different types of mental process when they performed the writing task. The difference in the focus of mental process might be the reason why these three groups of pupils produced different qualities of texts.

Table 4.10. Reliability Statistics for the first part of the questionnaire survey

Cronbach's Alpha	N of items
.760	12

On the other hand, the second part of the questionnaire survey looked at pupils' perceptions of their own performance. The pupils' perceptions of their own performance are compared with their actual performance in the narrative writing task. This part of the questionnaire survey consists of three sections; each section investigates each aspect of CAF. From the reliability statistics (see Table 4.11), the items in this part are acceptably reliable ($\alpha = .743$, N = 9).

Table 4.11. Reliability	V Statistics for the	e second part of the c	uestionnaire survey

Cronbach's Alpha	N of items
.743	9

Descriptions	M(S	M(SD) of planning			ANOVA		Location of significance:	
		conditions			Scheffé p			
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP
						OLP	NP	
Ability to write	1.69	1.88	1.54	.807	.450	.781	.853	.451
long sentences	(.884)	(1.107)	(.948)					
Ability to use	2.12	2.27	1.96	.672	.514	.846	.846	.514
different words	(1.033)	(.874)	(.958)					
Ability to use	2.23	2.65	2.46	1.108	.336	.337	.721	.796
connectors and	(1.142)	(.892)	(1.029)					
conjunctions								

Table 4.12. Pupils' perception on their performance in terms of complexity

The result of how the pupils perceive their own performance in terms of complexity is displayed in Table 4.12. In terms of the ability to write long sentences, the pupils in the OLP group scored the highest (M = 1.88, SD = 1.107), followed by the PTP (M = 1.69, SD = .884) and NP (M = 1.54, SD = .948) groups. It shows that both the planning groups have higher confidence in their written complexity when they performed the task, in comparison with the non-planning group, even though the mean scores scored by these three groups are low from the indicator of Likert scale, showing that three groups have very low perception on ability to write complex sentences.

Both planning groups also have better perception on their lexical complexity compared with the non-planning group. Following the same pattern as the previous result, the OLP group scored the highest mean score (M = 2.27, SD = .874) followed by the PTP group (M = 2.12, SD = 1.033) and the NP group (M = 1.96, SD = .958). In

accordance to the Likert scale, the overall mean scores obtained by all the groups are in the category of neutral, meaning the pupils do not have strong confidence on their lexical complexity.

Moreover, in terms of the use of connectors and conjunctions, the OLP group (M = 2.65, SD = .892) claim to use more connectors and conjunctions compared to the NP group (M = 2.46, SD = 1.029) and the PTP group (M = 2.23, SD = 1.142). Even though the use of connectors and conjunctions does not directly reflect the language complexity of the users; some connectors and conjunctions help language users to form longer sentences and therefore increase the chance of making more complex sentences. However, the mean scores of three groups of pupils are slightly higher than the neutral score, suggesting that they only have mild confidence in their use of these grammatical items.

In parallel with the results obtained from the actual text performance, the pupils in the OLP group have higher confidence in their language complexity. The PTP group scored the second high mean scores in two of the three complexity descriptions in the survey. Even though the NP group appears to be the weakest group in the questionnaire survey, the comparison of mean scores reveals that those mean scores do not show significant difference across group. Hence, the manipulation of planning condition may just have slight effects on pupils' perception in term of their confidence in language complexity.

The OLP group also turns out to be the group with the most positive perception on their language accuracy in comparison with other groups (see Table 4.13). In terms of the accuracy in lexical choice, the OLP group scored the highest mean (M = 2.31, SD= .778) followed by the NP (M = 2.08, SD = .977) and the PTP group (M = 2.04, SD= .774). The OLP group also achieved the highest mean score in their perception of using correct grammar (M = 2.42, SD = .758), followed by the NP group (M = 2.23, SD = .908) and the PTP group (M = 2.19, SD = .849). Similarly, the OLP group also scored the highest mean score (M = 2.81, SD = 1.021) in the measure of using correct tenses. However, the PTP group (M = 2.65, SD = .892) topped the NP group (M = 2.50, SD = 1.175) in this measure. The general feedback of the pupils from each group show that pupils do not have strong confidence in their language accuracy, as the mean scores obtained by each group in each description are lower than 3. There are also some discrepancies between pupils' perceptions and their actual performance. In the actual performance, the OLP group scored the highest in the error-free measure and the NP group scored the highest in the correct verb form measure. In contrast with the actual performance, the OLP group shows stronger confidence in their performance in most of the accuracy descriptions. The discrepancies shown between pupils' perception and pupils' actual performance show that perceptions do not affect or reflect actual performance.

Descriptions	M (SD) of planning		ANC	OVA	Locati	on of signi	ficance:		
		conditions					Scheffé p		
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP	
						OLP	NP		
Using correct	2.04	2.31	2.08	.761	.471	.525	.987	.622	
words	(.774)	(.778)	(.977)						
Using correct	2.19	2.42	2.23	.562	.572	.615	.986	.713	
grammar	(.849)	(.758)	(.908)						
Using correct	2.65	2.81	2.50	.574	.566	.867	.867	.566	
tenses	(.892)	(1.021)	(1.175)						

Table 4.13 Pupils' perception on their performance in terms of accuracy

For the pupils' feedbacks on their language fluency (see Table 4.14), the NP group obtained the highest mean score (M = 2.08, SD = .977) in the description whether they could write smoothly in the task. The second highest mean score is owned by the

OLP group (M = 2.04, SD = .958) followed by the PTP group (M = 1.88, SD = .766). With the same mean scores, the PTP group (M = 1.54, SD = .811) and the OLP group (M = 1.54, SD = .989) believe that they could write more than the NP group (M = 1.38, SD = .941). On the other hand, the NP group (M = 2.35, SD = 1.093) scored the highest mean score in the description whether they could write fast in the writing task in comparison with the OLP (M = 2.31, SD = 1.050) and PTP group (M = 2.15, SD = 1.156). Despite the low mean scores obtained by all the groups in the fluency descriptions, the survey of pupils' perception on their language fluency yielded mixed results and the results are contradictory to the actual performance of the pupils in their narrative writing. Again, the results of the survey show that pupils' perceptions do not represent actual performance.

Descriptions	M(SD) of planning		nning	ANOVA		Location of significance:		
		conditions						
	PTP	OLP	NP	F	ρ	PTP-	PTP-	OLP-NP
						OLP	NP	
Smoothness in	1.88	2.04	2.08	.329	.721	.829	.747	.988
writing	(.766)	(.958)	(.977)					
Quantity in	1.54	1.54	1.38	.244	.784	1.000	.833	1.000
writing	(.811)	(.989)	(.941)					
Speed of	2.15	2.31	2.35	.222	.801	.881	.820	.992
writing	(1.156)	(1.050)	(1.093)					

Table 4.14. Pupils' perception on their performance in terms of fluency

4.4 **Results of Interview**

The interview carried out on pupils were analysed in three layers. The first layer of analysis is to investigate the mental activities of the pupils whilst performing the narrative writing task. The second layer of analysis probes into pupils' perception on performance in general. The final layer of analysis examines pupils' perception on their performance in terms of CAF. However, only 9 pupils were involved in the interview due to the constraint of resource and time.

From the first layer of the analysis, it is found that all the pupils in the PTP group agreed that they were engaged in picture comprehension and content planning. Two-thirds of the pupils in the PTP group agreed that they involved thought about language planning whilst only one-third of the pupils believed that they were engaged in the use of rhetorical planning and L1 translation. Extract 4 shows how one of the pupils in the interview reported his/her use of picture comprehension (coded as <pc>), content planning (coded as <cp>) and rhetorical planning (coded as <rp>) strategies whilst performing the writing task.

Extract 4

- T: Oh, so you mean you are not so good at it. So what was the first thing you did when you received the task?
- P1: Look at the words. <cp>
- T: Look at the words? After that?
- P1: Look at the pictures<pc>.
- T: Then you started writing straightaway?
- P1: Uh.
- T: So when you started writing, did you arrange the organisation of the story or you did not do that because the story had been arranged readily for you?
- P1: I still needed to rearrange it<rp>.
- T: Oh, so you rearranged it. Okay... Okay... So did you look at the pictures given in details? Did you study the pictures carefully?
- P1: I did not study the pictures in details, just simply looked through them<pc>.
- T: Just simply looked through them? So did you really count like how many kites or people were there in the pictures?

P1: Nope.

- T: So you just looked through the pictures just to understand the flow of the story, am I right?
- P1: Mm (agrees with the statement) <rp>.

For the OLP group, all the pupils claimed that they thought about both content and language planning, whilst two-thirds of them reported the use of picture comprehension and similar to the PTP group, only one-third of the pupils admitted their use of L1 translation in L2 writing. None of the pupils in this group reported the use of rhetorical planning in performing the writing task. An example of how the transcript of one of the pupils in the OLP group was coded is demonstrated in Extract 5. From Extract 2, it is evident that the pupil employed the use of picture comprehension (coded as <pc>), content planning (coded as <cp>), language planning (coded as <lp>) and the translation from mother tongue (coded as <l1>).

Extract 5

T : Okay... what was the first thing you did when you received the task?

P3: Looked at the pictures given<pc> and then the words.<cp>

T : Ooo okay... So how did you look at those pictures? Did you study those pictures carefully?

P3: Ummm...

T : Alright... so what was in your mind when you wrote the story? Was it the scenes, the plot, sentence construction, words to use, grammar or you mother tongue? What was the thing that came into your mind the most when you wrote?

P3: I was thinking of the sentences <lp> and then convert them from Chinese to English. <l1>

T : If you compare both, which was occurring most frequently? Making sentences or//

P3: //I think of sentences first.<lp>

For the NP group, all the pupils also agreed that they thought of content planning when they perform the task. Two-thirds of them reported the use of picture comprehension, rhetorical planning and language planning. Also similar to the other two planning groups, only one-third of the pupils reported the use of L1 translation in their writing (see Table 4.15). Extract 6 demonstrates how a pupil from the NP group explains his/her mental activities when s/he performed the writing task, which involved rhetorical planning (<rp>), content planning (<cp>) and language planning (<lp>).

Extract 6

T: When you wrote the story, what was in your mind the most? Was it the scenes of the story or how to link the story?

P: How to link the story. <rp>

T: So in between sentences, grammar, words and translation?

P: Words. <cp>

T: Okay I have a list of the things that might be in your mind when you wrote. What was the thing that appeared to be the most prominent one?

P: Sentences. <lp>

The result of the first analysis reveals that three groups of the pupils engaged in content planning, and only one-third of the pupils from each group agree with the engagement of L1 translation whilst performing the task. Pupils from the PTP group seem to put more effort in picture comprehension, content planning and language planning whilst pupils in the OLP group put greater attention on language planning, content planning and picture comprehension. Pupils in the NP group seem to put more focus on content planning and equal focus on picture comprehension, rhetorical planning and language planning. It shows that pupils in the NP group experienced greater cognitive load in performing the task (see Table 4.15).

Planning]	Mental Activiti	es Involved in	Writing	
Groups	Picture	Rhetorical	Content	Language	Use of L1
	Comprehension	Planning	Planning	Planning	
Pre-task	3	1	3	2	1
Planning					
On-line	2	0	3	3	1
Planning					
No	2	2	3	2	1
Planning					

Table 4.15 Mental activities involved by the pupils while performing the writing task

The second layer of the analysis mainly addresses the pupils' feedbacks on their performance which were further categorised into three levels: bad, moderate and good. The results of the analysis are presented in Table 4.16

Table 4.16. Pup	oils' feedbacks on their	perception of their	overall performance obtair	ned
from the intervie	ew			
Planning	Perception on Pe	erformance	Total	
Groups	Bad Moderat	e Good		

Planning	Perception on Performance			Total	
Groups	Bad	Moderate	Good		
Pre-task	1	2	0	3	
Planning					
On-line	0	3	0	3	
Planning					
No Planning	0	2	1	3	

The result presented in Table 4.16 shows that two pupils in the PTP group have moderate confidence in their overall performance whilst one of them have low confidence in their performance. Pupils in the OLP group demonstrate higher confidence in their quality of writing, where all of them believe that they performed moderately in the task. Surprisingly, the NP group shows even higher confidence in their performance, which two of the respondents suggest that they performed moderately in the task, while one of the respondent shows that s/he performed well in the task.

The second layer of the analysis of the pupils' interview transcript yields a result that differs greatly from the questionnaire survey, which the results show that the NP group is in disadvantage in most of the perception comparison items. The example of how one of the pupils responded to the perception-related questions is presented in Extract 7 and Extract 8. The code <m> indicates that they have moderate perception on their performance.

Extract 7

T : So your mind was making sentences... How many marks will you give to yourself for your performance, if the full marks are 10?

P3: 5. <m>

T: Okay, thank you very much.

Extract 8

T : So, how do you rate your own performance if the full marks are 10?

P6: 5. <m>

T : Okay, okay, thank you!

The final layer of analysis focuses on pupils' perceptions of their performance and analyses pupils' responses according to the CAF construct. Responses related to each construct of CAF are further divided into positive and negative responses. The result of the analysis is presented in Table 4.17.

Table 4.17. Pupils' perceptions on the CAF of their writ	ing
---	-----

Planning Groups	Feedbacks on							
	Complexity Accuracy Fluency							
	Positive	Negative	Positive	Negative	Positive	Negative		
Pre-task Planning	0	0	2	0	1	3		
On-line Planning	0	1	2	1	0	3		
No Planning	0	1	0	2	1	2		

This layer of analysis obtained an even surprising result, which in the PTP group, all of the respondents gave negative feedbacks on their fluency of language. In that group, only one pupil mentioned that s/he has positive perception on language fluency. On the brighter side, two pupils stated that they have positive perception on their language accuracy. The pupils in the PTP group did not report anything regarding their language complexity. Extract 9 shows how a pupil from the PTP group gave his/ her response which signifies s/he has negative perception on language fluency (coded as<-f>) and positive perception on language accuracy (coded as <+a>).

Extract 9

T: Oh, it's moderately difficult. What was the most challenging thing in answering the question do you think? Or do you think that it is not challenging at all? Or was there any part which you were stuck there for quite some time?

P1: I didn't know how to add in more words<-f>.

T: Didn't know how to add in more words? Was it because I provided too little words in the task?

P1: What I wanted to write had already been provided.

T: Huh? What you wanted to write?

P1: The words I wanted to use in the task were all being provided in the task. So I did not what else I could use in the task<-f>.

T: What do you think were your strengths and weaknesses in completing the note expansion task?

P1: No strengths nor weaknesses (laugh).

T: There must be something that you are good at or bad at, such as your grammar or your vocabulary

P1: (inaudible)

T: huh?

P1: Grammar. <+a>

For the OLP group, all the pupils mentioned that they are not confident with their language fluency. Two respondents from the OLP group gave positive feedback and one pupil gave negative feedback on their language accuracy. One pupil from that group also reported negative feedback on language complexity. Extract 10 shows how a pupil reported his/ her negative feedback on his/ her language fluency (coded as <-f>) and at the same time, reported both positive and negative feedbacks on language accuracy (coded as <+a> and <-a>).

Extract 10

T : What about the most difficult part of the task?

P4: The most difficult part... I don't know.

T: What about sentence making? Or you could not express what you wanted to say?

P4: Sentence making, sentence making <-f> was a little bit difficult.

T: Okay, so what do you think are your strengths and weaknesses in performing this task?

P4: Emmm... strengths...

T: When you were writing your task...

P4: Strengths... maybe in using past tense all these. <+a>

T: That means your grammar is good.

P4: Uh, weakness is using preposition. <-a>

The results obtained from the NP group are greatly different than the previous planning groups as the negative feedbacks of each area of language performance are
more than the positive feedbacks. For language complexity, one pupil reflected that s/he has negative perception on language complexity whilst no feedback that displays pupils' positive perception in that aspect can be found. Two pupils also reported that they have negative perception on their language accuracy. For language fluency, two pupils gave negative feedback and one pupil gave positive feedback on that construct. Extract 11 is an example of how a pupil from the NP group reported his/ her negative feedbacks on language fluency (coded as <-f>) and language complexity (coded as <-c>).

Extract 11

- T: The words given? Were they easy or difficult?
- P: Easy. <e>
- T: Easy, so what was the most difficult part?

P: Don't know how to add in some more words. <-f>

T: Don't know how to add words... So what were your strengths and weaknesses in the task just now?

P: The strength was I know how to make sentences and the weakness was I don't know how to add in more words.

T: Oh okay, so the sentences you made were mostly short?

P: Uh. <-c>

However, it is worth mentioning that in the interview, some pupils reported both positive and negative feedbacks on the investigated language constructs. The inconsistency of pupils' response can be interpreted in two ways: 1) the pupils gave feedbacks on different aspects of the investigated constructs, for example the use of verb forms and prepositions under the construct of accuracy or; 2) the pupils did not clarify their thought as they were not used to be interviewed. Extract 12 and 13 display the occurrences of inconsistency in the interview.

Extract 12

T: Okay, so what do you think are your strengths and weaknesses in performing this task?

- P: Emmm... strengths...
- T: When you were writing your task...

P: Strengths... maybe in using past tense all these. <a>

T: That means your grammar is good.

P: Uh, weakness is using prepositions. <-a>

T: Preposition... is there anything else for your weakness?

Extract 13

T: Oh, it's moderately difficult. What was the most challenging thing in answering the question do you think? Or do you think that it is not challenging at all? Or was there any part which you were stuck there for quite some time?

P1: I didn't know how to add in more words<-f>.

T: Didn't know how to add in more words? Was it because I provided too little words in the task?

P1: What I wanted to write had already been provided.

T: Huh? What you wanted to write?

P1: The words I wanted to use in the task were all being provided in the task. So I did not what else I could use in the task<-f>.

From the three-layer analysis of the interview transcripts, pupils' descriptions of their mental activities whilst performing the task and pupils' perceptions on their performance can be studied in depth. However, the results of the analysis have their underlying reliability problems, as pupils in the age of 12 are not able to fully express themselves and the way the interviewer interviewed the pupils might also affect how they responded to the questions. Nevertheless, the data obtained from the interview is still very useful to validate the results obtained from the questionnaire survey.

4.5 Analysis of Pupils' Planning Sheets

Other than that, the planning sheets done by the pupils in the PTP had been analysed. 26 planning sheets of the pupils were categorised according to the two major types of planning as mentioned in Ellis (2005): 1) strategic planning and 2) task repetition. Pupils are considered employing task repetition if their planning sheets are in full sentences whereas pupils whose planning sheets are written short phrases, clauses or words are considered as attending strategic planning. The analysis was done using Chi-square test as presented in Table 4.18.

	Observed N	Expected N	Residual	-
Task Repetition	14	13	1.0	
Strategic Planning	12	13	-1.0	
Total	26			
Asymp. Sig.	.695			

Table 4.18. Types of pre-task planning done by pupils in the PTP group

According to the Chi-square test, the frequencies of the pupils who performed task repetition (N=14) and strategic planning (N=12) are almost identical. Nevertheless the number of pupils performed task repetition is slightly higher than those who performed strategic planning. The significance level as shown in the Chi-square test indicates that there is no significant difference between the frequencies both types of pre-task planning.

Nevertheless, from the study of the planning sheets, it was found that the pupils who performed task repetition were only able to rehearse a small part of the task, as the time given to them was only 5 minutes. The pupils who performed strategic planning, however, were able to perform the pre-task planning more sections of the task. Examples of how pupils performed their pre-task planning using task repetition and strategic planning strategies are presented in Extract 14 and Extract 15.

Extract 14 (Task Repetition)

1. Last Saturday, Ali and his friends went to the field for flying kites. That day was a wind day. Suddenly, Ali's kite's wires was broken and the kite landed on a big tree.

2. After that, Ali climbed up the tree to get his kite. When just a little and can the kite, the tree's branch broke.

Extract 15 (Strategic Planning)

down/to/ground/His friend/ sent/a/

 1. Last/Ali/friends/went to/field/near/house/for/wind/string/landed/tree

 2.Ali/climbed/the
 tree/to/the
 kite/Suddenly/branck/broke/and/fell

3. came/visit/ Ali

The analysis result obtained from the Chi-square test shows that the planning strategies employed by the pupils differ individually. There is no uniform way of how pupils in the investigated Chinese primary school plan their essay prior to the task.

4.6 Conclusion

From the analysis of obtained from different methods, it is apparent to see that planning does not have significant effects on pupils' writing, which is investigated in terms of CAF. Besides, even though pupils in different groups are attending to similar cognitive activities whilst performing the writing task, they have different perceptions in their performance even though the differences are not significant. The analysis of pupils' planning sheets also indicates that there is no specific preference of pre-task planning strategy employed by the pupils. Detailed discussion on the results of this research is discussed in the next Chapter Five.

CHAPTER FIVE: DISCUSSION ON PLANNING EFFECTS

5.0 Introduction

This chapter discusses the results obtained from the present study in greater details, which seeks to explain the reasons behind the results and links them to relevant theories. Besides, this chapter serves an important purpose, which is to answer the research questions based on the results obtained in the present study. Hence, this chapter justifies the results drawn from the analyses.

5.1 The Effects of Planning on Chinese Primary School Pupils' Written Performance

This section answers RQ1 in the present study, which is: What type of planning has the greater effects on Chinese primary school pupils' written complexity, accuracy and fluency when they perform pre-task or on-line planning?

To discuss this issue in greater depth, the effects of planning will be discussed based on the constructs of CAF. Other than answering the research questions based on this research, this section also compares the findings of this research with previous studies. A discussion on the discrepancies of the comparison will provide a better perspective on the discoveries of the present study and a clearer picture on the direction of future studies.

5.1.1 Planning Effects on Complexity

The measure of syntactic complexity shows that the pupils in the OLP group produced the most complex sentences in comparison with other groups. Even though the difference of mean scores is not significant, the result suggests that pupils who attend to the task with no real-time pressure may produce sentences with greater complexity, as their mind is not restricted by the time constraint. To relate it back to Kellogg's model, pupils in the on-line planning group had given more time to attend to both planning and translating subprocesses. Thus, they had given the flexibility of time to retrieve the images and information generated from their VSSP.

Apart from that, the present study also finds that pupils from the OLP group produced writing with the most variation of verb forms and the PTP group turns out to be the group having the lowest mean score. The inference made to explain this result is that pupils in the OLP group were free to express what they wanted to write in the essay as they knew they could write without any time constraint and hence, they were more willing to take risk to use more verb forms in their writing. From that, it can also be inferred that when the pupils are given more time to attend to both planning and translating subprocesses, they are able to withdraw more conceptual knowledge related to verb forms from their VSSP. The result of the study is in line with Ellis' (2005) proposition that unpressured on-line planning helps learners in the language formulation by directing their selective attention to forms. Besides, Ellis (2005) also stated that PTP facilitates learners' conceptualisation of message but in the note expansion task given in this research, the provision of keywords minimises the need of pupils to conceptualise the content of their writing. Therefore, with the provision of keywords, pupils from the PTP group tended to rely on them in order to formulate their sentences although they had more time to plan before writing. As a result, they produced writings with low variation of verb forms. Nevertheless, no significant difference was found between all the mean scores obtained in this measure due to the limitation of pupils' language proficiency.

Other than that, the present study also discovers that OLP condition favours the pupils' production of language with greater lexical variety. This result indicates that simultaneous activation of planning and translating with no time constrain enables pupils to generate more variation of words which are later transferred to the VSSP. In this measure, there is no difference found between the mean scores obtained by the PTP and NP groups. Besides, similar to the previous two measures of language complexity, the difference of mean scores of the three condition groups is too small to be considered significant. This can be explained by the nature of the note expansion task which some of the important keywords were given in the task. Since the production of lexical items is greatly determined by the pupils' range of vocabulary, pupils' limited vocabulary and the provision of keywords had restricted pupils' creativity to use different words in delivering the content of the story.

From the three measures used in the present study to investigate the effects of planning conditions on language complexity, the common thing in all the results is that the OLP group scored the highest mean score in all the measures. To relate the result of the study back to Kellogg's (1996) model which is related to the working memory in writing, saying that the limited capacity of central executive of the learners pushes them to make decisions of prioritising the necessary process in writing under a time-pressured condition. For the PTP and NP group which were bound with time limit, they had to compromise the complexity aspect of their language in order to complete the task within the time limit, whereas the pupils in the OLP group were able to produce more complex language because they had lower mental pressure to perform the task and hence, their

mind was more opened to think more creatively in writing. Thus, pupils in the OLP group had more time and freedom to form more complex ideas and use more complex lexical items. Even though the results show that the pupils in the OLP group spent shorter time to complete the task in average, but in the closer look of the raw data collected from the pupils from the OLP group, out of the 26 pupils in the OLP group, 16 pupils actually spent more than 20 minutes to complete the task and only 10 pupils spent shorter time than 20 minutes. So in terms of the number of pupils, the number of pupils who spent longer time to complete the task was actually more than those who spent shorter time. To relate the result of the study back to the theoretical framework which is related to the working memory in writing, the pupils in the OLP group were able to produce more complex language because they had more time to undergo both planning and translation subprocesses, which allowed them to conjure images and conceptual knowledge and choose suitable lexical units and sentence structure to convey the information sent to the VSSP.

Overall, the findings of the present study show that planning conditions do not have significant impact on Chinese primary school pupils' L2 language complexity in writing. In contrast with the findings obtained from previous studies, such as the studies conducted by Ellis and Yuan (2004), Piri, Barati and Ketabi (2012) and Ghavamnia, Tavakoli and Esteki (2013), which were primarily conducted on adult learners, the effects of planning on young L2 learners seem to be limited by major factors such as language proficiency and also the nature of the note expansion task.

5.1.2 Planning Effects on Accuracy

The analysis of accuracy consists of two parts which investigate pupils' use of 1) errorfree clauses and 2) correct verb forms. Even though there is no significant difference reported in the comparison of mean scores, the result shows that OLP group yielded the most number of accurate clauses which conforms to Ellis and Yuan's (2004), Seyyedi. et. al.'s (2013) and Ghavamnia, Tavakoli and Esteki's (2013) findings but their studies show that PTP group produced more accurate writing than the NP group and in the present study, the NP group performed better than the PTP group. Based on Kellogg's (1996) model, pupils in the OLP group had ample time to attend to all the writing processes: 1) formulation, 2) execution, and 3) monitoring. As they were planning and writing, they were also able to monitor and check the grammar mistakes they made and rectify them wherever necessary.

The result of the present study also reveals that the NP group produced the most accurate use of verb forms, followed by the OLP and PTP groups. The contradictory results indicate that planning does not have strong effect in enhancing learners' grammatical accuracy in L2 writing. This may be due to Chinese primary school pupils' tendency to focus on meaning rather than the forms of language when they are planning their writing. The explanation is in line with Sangarun's (2005) suggestion which highlights similar tendency of L2 learners that put their attention on the use rather than the grammatical aspects of the language. Moreover, according to Skehan and Foster (1997), the three constructs of CAF will compete with each other. Hence, one aspect will be given more focus in comparison to other aspects. The claim made by Skehan and Foster (1997) is also one of the claims postulated in Kellogg's (1996) model: the trade-off theory. In this study, the focus which learners paid attention to was the use of language: fluency.

Furthermore, the PTP group scored the lowest mean scores in both accuracy measures. This can be explained by Wendel's (1997) argument that learners in the PTP group were given the extra time to "off-line monitoring" their language accuracy but

this kind of "off-line monitoring" cannot affect the on-line performance of the pupils. As operationalised in the present study, pupils in the PTP group had relatively shorter time to perform their task on-line (15 minutes) therefore they only managed to attend to these subprocesses of writing: 1) translating, 2) programming and 3) executing. Hence, pupils in the PTP group had little opportunity to check the grammatical aspects of their writing, rendering them to compromise their language accuracy to focus on their language fluency and complexity. The trade-off effects that took place in the PTP group had significantly benefited the fluency of its performance especially in the measure of syllables per minute. The PTP group also performed the best in the measure of word reformation.

5.1.3 Planning Effects on Fluency

In line with the proposition made by previous researchers, the result of the fluency measures shows that pupils in the PTP group produced the most fluent essays in comparison with the other two groups in the measure of syllables per minute. The difference of mean scores with the NP group is also significant, showing that pre-task planning enhances Chinese primary school pupils' written fluency. In the measure of word reformulation, the PTP group also turns out to be the group which made the least number of corrections in writing even though the mean score obtained by the group is not significantly different than the other groups.

The results are similar to those obtained by Ghavamnia, Tavakoli and Esteki (2013) and they had discussed the reasons why pre-task planning can enhance language fluency in writing. They proposed that as pupils plan prior to the actual performance, they engaged themselves cognitively to understand the story, organise the message needs to be delivered and add details on the setting and characters in the task. In fact, the pupils in the pre-task planning stage had already attended all the subprocesses of writing involved in Kellogg's (1996) model if they started writing in full sentences in the pre-task planning stage. Hence, in the actual performance of the task, pupils only needed to access to the stored language which they had already formed in the pre-task planning stage. From that, pre-task planning helps pupils to overcome the limitation of working memory capacity. Since pupils in the PTP group had little cognitive load in writing, they produced the most fluent pieces of writing in the measure of syllables per minute and showed the least occurrences of word reformation. The results from this research are in line with the findings obtained by Ellis and Yuan (2004), Sim (2010), Piri, Barati and Ketabi (2012) and Ghavamnia, Tavakoli and Esteki (2013).

Furthermore, the type of pre-task planning employed by pupils also affects the outcomes of their writing. In this study, the PTP strategies employed by the pupils were categorised into two types: 1) task rehearsal and 2) strategic planning based on the categorisation provided by Ellis (2005). The planning sheets which were written in full sentences were categorised as task rehearsal sheets whilst those written in words, chunks or short phrases were considered as strategic planning sheets. For the pupils who performed task rehearsal, they attended to all the sub-processes of writing in Kellogg's (1996) model (i.e. Planning, Translating, Programming, Executing, Reading and Editing) prior to actual writing thus they might perform better in terms of fluency in comparison to the non-planning pupils, as the actual writing was just a repetition of the pre-task planning. Those who attended to strategic planning are expected to produce more fluent writing as this kind of planning helps them to establish goals, think up ideas and organise the necessary subprocesses for writing (Ellis & Yuan, 2004). The summary of findings related to RQ1is tabulated in Table 5.1.

 Table 5.1. Findings and interpretation related to Research Question 1

Research Ouestions	Findings	Interpretation
RQ1: What type of planning has the greater effects on Chinese primary school pupils' written complexity, accuracy and fluency when they perform pre-task or on-line planning?	1) Pupils in the PTP group produced writing with greater degree of fluency.	1) Pre-task planning helped the pupils to overcome their limitation of working memory capacity. Pupils who employed task rehearsal attended all the writing sub-processes in Kellogg's (1996) model and they just had to repeat the same writing in actual writing; pupils who attended strategic planning underwent cognitive processes such as goal establishment, idea creation and organisation (Ellis & Yuan, 2004).
	2) Pupils in the OLP group produced writing with greater complexity and accuracy (error-free clauses).	2) Pupils in the OLP group had lower mental pressure to perform the task and they had more time and freedom to form more complex ideas and use more complex lexical items. They also had more time to attend the monitoring process as in Kellogg's (1996) model to check their grammar mistakes.
	3) Pupils in the PTP group produced writing with the lowest degree of accuracy.	3) Pupils in the PTP group only managed to attend to subprocesses of writing such as translating, programming and executing as in Kellogg's (1996) model, rendering them to compromise their language accuracy and

5.1.4 Factors Affecting the Results of the Present Study

Based on the results obtained in the present study, it was found that most of the comparison of mean scores in the CAF measures showed no significant difference. Furthermore, some of the findings are similar to the previous studies despite some unexpected discoveries. For instance, the present study found that pre-task planning aids pupils' written fluency and similar findings were found in Ellis and Yuan (2004), Sim (2010), Johnson, Mercado and Acevedo (2012) and Piri, Barati and Ketabi (2012). However, the results of this study suggest that either form of planning brings no significant impact on L2 written accuracy. This part of findings differs from that in Bagheridoust and Fakoor's (2013), Salimi, Alavinia and Hosseini's (2012) and Tavakoli and Esteki's (2013) studies which suggest that PTP and OLP have significant effects to enhance the accuracy of L2 writing. Besides, the present study discovers that planning does not have strong effect to enhance language complexity and the finding is contradictory to the findings obtained by Ellis and Yuan (2004), Sim (2010) and Sevyedi et. al. (2013). Other than that, all of the results obtained from the measured items did not show significant difference of mean scores across groups, except for the result for syllables per minute (fluency). This part of the results also greatly differed from the results from previous studies (e.g. Skehan, 1996; Bagheridoust & Fakoor, 2013; Ghavamnia, Tavakoli & Esteki, 2013; Yi & Ni, 2015). The contradiction of the results found in the present study and the results obtained from the previous ones can be accounted to many different factors. Those factors are:

a) Learners' Language Proficiency

First, the subjects of the present study are primary school pupils whilst the subjects of the previous ones were mostly adult learners. From the perspective of their developmental stage, the subjects of the present study might not have the range of language proficiency which can yield results that are 'significantly different' than the other learners. Thus, pupils in the primary school might not have the ability to perform more than it is required to exhibit performance that is significantly better than others, despite whichever planning condition they were assigned to. Therefore, learners' language proficiency might be one of the contributing factors for the insignificant difference of performance shown in most of the CAF measures in this study.

Different from young learners, adult learners had more exposure to the language and the range of performance is greater than that of younger learners to show significant difference of the results. Thus, it is easier for adult learners to obtain significant differences in performance such as studies conducted by Ellis and Yuan (2004), Keivan Seyyedi et. al. (2013) and Bagheridoust and Fakoor (2013). Due to the differences of learners' language proficiency/ developmental stages, the results obtained in the present study should not be compared with the studies carried out on adult learners without considering their differences.

b) Type of the Task Used in the Study

Second, the type of task used in the present study is also different from the task used in previous studies. In previous studies such as Seyyedi, Mohamed Ismail, Orang, and Nejad (2013) and Ghavamnia, Tavakoli, and Esteki (2013), the subjects performed their

writing tasks with the provision of pictures as guidance. In the present study, pupils were given not only pictures but also keywords that assist them to perform the task. Even though the given keywords would help them to write better, the provision of them limited the creativity of the pupils to use their own words. The provision of inflected verbs also directed the pupils to adopt a certain type of verb tense in their writing. Furthermore, the note expansion task used in this study was a task which pupils were familiar with which they had been practising in their usual language lessons. The practices and training which the pupils had in their lessons might result in the insignificant difference of pupils' performance as they already mastered the ways to perform such tasks.

Moreover, a research carried out by Sangarun (2001) indicated that task demand influenced learners' language performance. In her research which involved argumentative oral tasks, tasks were divided into two categories: Low and high level cognitive and linguistic demand (LCLD and HCLD). The results of her study showed that LCLD was more effective to direct learners' focus towards content planning and promoted fluency and accuracy. HCLD, however, helped to promote complexity. Therefore, in the present study, the use of note expansion task might be the factor which caused the insignificance of the difference of mean scores for most of the CAF measures.

c) Time Used to Complete the Task

Third, the results of the present study are also affected by the time pupils spent to complete the task. In previous studies, the subjects spent significantly longer time to complete the writing task. According to Abdollahzade and Taak (2014), learners need to have at least 10 minutes of planning time in order to yield significant effects on

written performance. Referring to the planning time allocated to the learners in the present study, the PTP group only spent 5 minutes to plan whereas the OLP group did not spend longer time to write the essays as expected. The insufficient provision of time given to both planning groups might be the factor that made the results different from those obtained from Bagheridoust and Fakoor's (2013), Salimi, Alavinia and Hosseini's (2012) and Ghavamnia, Tavakoli and Esteki's (2013). However, despite using shorter duration to complete the task, the OLP group yielded the most number of words and syllables in the study. The result obtained suggests that real time pressure might affect the pupils' production of writing.

d) Pupils' Mental Activities

Other than that, the mental activities underwent by the pupils while performing the task was one of the key factors that affected their written performance, assuming all the groups had equal pupil distribution of different proficiency levels. Based on the results obtained from the questionnaire survey, it was shown that pupils in the planning groups had low average mean scores for all the items related to the possible mental activities involved in ESL writing. Even though the NP group had higher mean scores in comparison with the other two groups, which indicated that pupils in the group had more mental activities to attend, the difference of the mean scores across these three groups was actually not significant. This might prove that pupils in all the groups might not have much difference in terms of the number of mental activities engaged despite the results shown from the questionnaire survey. The details of the mental activities engaged in each group will be explained in 5.2.

e) The Planning Strategy Employed by the Pupils in PTP Group

According to the study carried out Sangarun (2001), three types of pre-task planning were employed to examine their effects on language performance: 1) content focused (CFPP) 2) language focused (LFPP) and 3) content and language focused (CLFPP) pre-task planning conditions. Among all PTP conditions, content focused (CFPP) and content and language focused (CLFPP) planning conditions are able to promote language complexity and all types of pre-task planning conditions promote accuracy and fluency.

Nevertheless, the results obtained in the present study contradicted with the results obtained from Sangarun (2001). The PTP group did not outperform the NP group significantly in all of the measures except for the measure of syllabus per minute (fluency). Hence, a deeper investigation on how pupils in the PTP group performed their pre-task planning has to be done.

Even though in the present study, pre-task planning conditions were not being oparationalised in Sangarun's (2001) terms, the study provides some insights about how the focus of pre-task planning affects the performance of learners. In the present research, the planning sheets obtained from the pupils were analysed into two main types: 1) strategic planning and 2) task rehearsal. Rehearsal is the repetition of task prior to the actual writing (Hsu, 2012) whilst strategic planning is the preparation done for a language task by considering the encoding and expression of the actual task materials (Ellis, 2005). Based on the definitions given by Ellis (2005), strategic planning can be grouped as content focused and task rehearsal as content and language focused pre-task planning. In this study, 14 pupils employed task rehearsal to plan and 12 pupils employed strategic planning.

From the examination of the pupils' planning sheets, the researcher also found that pupils did not fully perform their task rehearsal, as the time given for pre-task planning was only 5 minutes. From all the pre-task planning sheets collected, the researcher found that all the pupils who performed task rehearsal only managed to describe the first picture in the task, whereby three pictures were provided in the task. This may be a factor which caused the results obtained from the PTP group different from the expected results.

Furthermore, one of the possible reasons which caused the insignificance of performance was pupils' lack of training in pre-task planning. In researcher's speculation, pupils in the PTP group might perform better if they were given ample training in performing pre-task training.

5.2 The ESL Writing Processes of Chinese Primary School Pupils

In relation to RQ2, which is about how Chinese primary school pupils attend to the narrative writing task under different planning conditions, this section discusses how the results obtained in the present study can be explained by the hypotheses proposed by Kellogg's (1996) Model of Writing Processes. Unlike most of the studies on planning effects on CAF which primarily focus on ESL adult learners' writing process, this discussion focuses on the writing processes of young learners of ESL, or more specifically Chinese Primary School ESL pupils.

5.2.1 Trade-off Effects

Other than the aforementioned issues, one of the linguistic phenomena that is closely related to the present study and in some degree affects the results is the trade-off effects that occurred in pupils' mind while attending to the task. It has been argued that learners are not able to focus on all three areas of CAF, especially when the task is challenging to the learners (Vercellotti, 2012). In this case, the results of the present study indicate that pupils do have a certain degree of trade-off under different task conditions.

Within the three constructs of CAF, previous studies suggest that there is a trade-off between language fluency and accuracy (Ahmadian & Tavakoli, 2011; Yuan & Ellis 2003; Michel, Kuiken & Vedder, 2007). The similar finding can be applied to the present study which indicates that in the PTP condition, pupils are able to produce a more fluent writing but not a more accurate one. Besides, the OLP condition seems to be able to produce more complex essays even though the effects are not as significant as the effects made by the PTP group on written fluency. Most of the pupils in the OLP group needed a longer duration of time to perform the task, indicating that pupils in the OLP group compromised their language fluency to enhance their language complexity. However, both conditions do not seem to have strong effects on language accuracy. This part of finding, especially the find obtained from the PTP group, contradicts with Skehan and Foster's (1996) hypothesis, suggesting that trade-off effect exists between complexity and accuracy. Nevertheless, Ortega (1999) suggests that Skehan and Foster's hypothesis should take learners' proficiency level into consideration. Ortega's (1999) statement explains that the trade-off effect between complexity and accuracy will not be evident if the learners are of lower proficiency. Clearly, Ortega's (1999) statement answers the reason of the different findings obtained in the present study.

5.2.2 Pupils' Foci in Writing under Different Planning Conditions

To identify the mental activities that the pupils focused on in their writing task, the mental activities with the mean score higher than 3.00 in the questionnaire survey are

considered as the pupils' foci in writing. For the PTP group, none of the mental activities obtained mean scores higher than 3.00, except for sentence construction (M = 2.96). For the OLP group, there are two mental activities that scored 3.00 and above, which are sentence construction (M = 3.04) and grammar (M = 3.00). To classify it using Kellogg's (1996) model, the prominent mental activities carried out by both the PTP and OLP group can be classified under the sub-process of translating, which is the sub-process where the writers select the lexical units and syntactic frames used in the texts they produce. For example in the writing task employed in this study, the pupils have to choose the appropriate words to link the keywords given in the task to form sentences. Moreover, they need to arrange the words according to the correct syntactical order, for instance positioning subject, verb and object in a sentence in a grammatically acceptable sequence.

For the non-planning group (i.e. NP group), more mental activities have been identified, suggesting that pupils in the NP group were more cognitively loaded when they performed the writing task. The mental activities that the pupils focused on include studying keywords (M = 3.08), sentence construction (M = 3.04) and clarity (M = 3.00). To explain these activities in Kellogg's (1996) model terms, these activities involve the sub-processes of planning (the sub-process of establishing goals, creating and organising ideas) and translating.

The results obtained from the interview are somewhat similar to the questionnaire results, indicating that the pupils in the NP group had relatively more mental activities to attend whilst performing the task. From the results of the interview, most of the pupils in the planning groups only need to attend to three mental activities: picture comprehension, content planning and language planning. Most of the pupils in the NP needed to engage themselves in picture comprehension, rhetorical planning,

content planning and language planning. The findings obtained of the interview are similar to Ellis and Yuan's (2004) findings which suggest that learners in the NP group had greater cognitive load whilst performing the task.

The results obtained from the questionnaire survey and interview suggest that pupils in the planning groups have fewer mental activities to focus on and those mental activities are classified as the translating sub-process in terms of Kellogg's (1996) model. Whereas for the non-planning group, pupils focused on more mental activities and they involved all both planning and translating subprocesses with the formulation system in Kellogg's (1996) model. The findings obtained in this study hence agree with the control mechanism claim suggested in Kellogg's (1996) model, which is related to the cognitive load of learners in writing. In this case, pupils in the PTP group allocated their mental resources solely on the sub-process of translating, as they had rehearsed the task prior to the actual writing, whilst pupils in the OLP group needed to focus on more mental activities but their cognitive load was reduced due to extra time given. Hence, pupils in the OLP group focused not only on sentence construction but on grammar checking as well. The pupils in NP group have greater cognitive load to perform their writing task as they have more mental activities to focus in the limited time provided.

5.2.3 Pre-task Planning Strategies Employed by Pre-task Planners

From the 26 participants in the PTP group, 14 pupils attended to task rehearsal whilst 12 pupils performed strategic planning before they performed the actual task. The result of the study reveals that pupils' preference of both types of pre-task planning is almost equal. Instead, it is up to their personal decision to choose which planning strategy to be employed in their writing. Since the numbers of pupils who performed task rehearsal and strategic planning are almost equal and the PTP group outperformed the non-

planning group in terms of fluency, it could be implied that both types of planning do have some effects on pupils' written fluency. This part of result is in line with the result obtained by Sangarun (2001) which claims that all types of pre-task planning, regardless of their focus, have positive impact on language fluency.

Based on the analysis of the planning sheets, the researcher found that pupils in the Chinese primary school do not master the proper skills to plan a task before writing it (as shown in Extracts 14 & 15, Chapter 4). This might be one of the major factors which affect the pre-task planning strategy employed by the pupils in approaching the task given. The pupils' immature pre-task planning might be due to their lack of such exposure in their daily instructions. The summary of findings related to RQ2 is presented in Table 5.2.

Research	Findings	Interpretation
Question		
RQ2: How do Chinese primary school pupils attend to the narrative writing	1) Pupils in the PTP group compromised their language accuracy and focused on their language fluency.	1) The finding indicated the trade-off between accuracy and fluency when pupils were to perform the task under time-pressured condition.
task under different planning conditions?	2) Most pupils in the OLP group compromised their language fluency to attend to the accuracy aspect of their writing.	2) Pupils in the OLP group spent their time to elaborate their writing and to check their grammar. Hence, trade-off effect was shown where pupils compromised their language fluency to improve their complexity and accuracy.
	3) Pupils in the PTP group focused more on sentence construction.	3) Pupils in the PTP group had less cognitive load in their writing as they had attended the task in their pre-task planning.
	4) Pupils in the OLP group paid more attention on sentence construction and	4) Pupils in OLP group had to attend all the mental processes in Kellogg's (1996) model but their cognitive load

Table 5.2. Findings and interpretation related to Research Question 2

grammar.	was reduced due to the extra time given to them.
5) Pupils in the NP group attended to more mental activities compared with both planning groups.	5) Pupils in the NP group had to attend to all the mental processes in Kellogg's (1996) model under time- pressured condition, hence their cognitive load was heavier.
6) Pupils in both planning conditions indicated the use of picture comprehension, content planning and language planning when they performed the task.	6) Pupils in both planning conditions carried out planning process which involved strategies as stated. However, their planning process was not as complicated as the process carried out by the NP group.
7) Pupils in NP group indicated the use of picture comprehension, rhetorical planning, content planning and language planning when they performed the task.	7) Pupils in the NP group planned in a more sophisticated way which involved more strategies than the planning groups. This finding reveals that pupils in the NP group had heavier cognitive load to process in writing.
8) 14 of the pupils in the PTP group employed task rehearsal whilst 12 of them used strategic planning to plan their task.	8) Pupils in the Chinese primary school do not have special preference in their pre-task planning strategy. The finding also shows that pupils do not master the proper technique of pre-task planning.

5.3 Chinese Primary School Pupils' Perceptions on their Different Planning Conditions

This section of discussion answers RQ3, which is: What are the Chinese primary school pupils' perceptions on their performance in different planning conditions?

5.3.1 The Differences between Pupils' Perceptions and Actual Performance

Other than looking for the connection between planning conditions and written performance, the present study also investigates the effects of planning on pupils' perception on their performance. The present study also intends to link pupils' perception with their actual performance. From the results of the questionnaire, pupils in the OLP group obtained the highest mean scores for all the items in terms of language accuracy and complexity, this part of finding reflects the actual performance of pupils in their writing. On the other hand, pupils from the NP group reported the highest mean scores for most of the aspects of language fluency, showing that they were more confident in language fluency in comparison with other groups. This part of finding differs from pupils' actual performance as in the analysis of pupils' writing, pupils from the PTP group obtained the highest mean scores for the measures of fluency. The possible reason of why the NP group obtained the highest mean score might be their misperception of fluency in which they misconstrued "time pressure" as fluency.

The results obtained from the interview, however, are different than the results from the questionnaire survey. The results from the interview show that pupils from all the groups have negative perceptions in their language fluency and complexity. From that, it can be assumed that pupils in the investigated Chinese primary school had low confidence in their ESL writing in terms of fluency and complexity. Pupils' low confidence in their writing, if it is not being given enough concern, might result in pupils' disinterest in language learning in a long run. Thus, it is important for the researcher to identify the effects of planning conditions on pupils' perception. From the findings of the interview, it is shown that both types of planning had no effect to evoke pupils' positive perception of their writing in terms of fluency and complexity.

Nevertheless, the pupils from planning groups are more confident with their language accuracy in comparison with the non-planning counterpart. This part of finding, however, greatly differs from pupils' actual performance as reflected in the analysis of writing. In actual performance, pupils in the OLP group scored the lowest mean scores in all the accuracy measures. This finding reveals that pupils' perception is not a strong predictor of their actual performance. However, this finding indicates that both planning condition had positive effects on pupils, at least in perception level.

The results obtained from the questionnaire survey and interview show that pupils' perceptions on their language complexity and accuracy do not reflect their actual performance. The results of the present study conform with the results of Jeon et.al.'s (2014) study which states that learners' perception on their writing is not related to their actual performance in writing in terms of complexity and accuracy. However, their research did not investigate the role of perception on language fluency and the participants in their research were adult learners. The summary of findings which answer RQ3 is shown in Table 5.3.

Research	Findings	Interpretation
Question		
RQ3: What are the Chinese primary school pupils' perceptions on their performance in different	1) The questionnaire results report that pupils from the OLP group scored the highest for the items related to complexity and accuracy.	1) Pupils' perception reflected their actual performance in terms of complexity and accuracy.
planning conditions?	2) In the questionnaire survey, pupils in the NP group reported the highest mean scores for most of the aspects in language fluency.	2) In fact, pupils in the PTP group scored the highest in terms of fluency. Pupils in the NP group perceived "time pressure" as fluency.
	3) The interview results show that pupils from all groups have negative perceptions in their language fluency and complexity.	3) This finding reflects pupils' low confidence in second language writing. The finding also indicates that both types of planning had no effect to evoke pupils' positive perception of their writing in terms of fluency and complexity.
	4) From the interview, it discovers that pupils in the planning groups are more confident in their language accuracy.	4) Pupils in the PTP group scored the lowest in all the fluency measures in the actual writing. The finding shows that pupils' perception does not fully reflect their actual performance. Nevertheless, the finding shows that both types of planning are able to boost pupils' confidence in their writing in terms of accuracy.

Table 5.3. Findings and interpretation related to Research Question 3

5.4 Conclusion

This chapter discusses the results obtained in this research and it is found the results of the present study contradict with the results of previous studies, except the part that pretask planning promotes pupils' written fluency. Despite the fact that planning conditions had not significant effects on most of the CAF measures in the present study, the study reveals the trade-off effect between form (complexity and accuracy) and fluency. The results of the present study obtained from questionnaire and interview also suggest that planning conditions reduced pupils' cognitive load in performing the writing task. However, the present chapter also discusses the factors associated with the insignificant difference of mean scores in most of the measures of CAF which include pupils' language proficiency, type of task used, time spent to accomplish the task, pupils' mental activities and the PTP strategy used by the pupils in the PTP group. The present study also discovers that despite implementing the task under different planning conditions, pupils in all the group had low confidence with their performance in general. Moreover, the findings also indicate that pupils' perception only partially reflected their actual performance. Since the present study deals with young learners, the present study calls for more research on young learners to investigate their L2 writing behaviours.

CHAPTER SIX: CONCLUSION

6.0 Introduction

This chapter presents the overall summary for the whole study and discusses the implications of the findings in the contexts of English language teaching and assessments. This chapter also provides a few suggestions for future research based on the issues raised in the present study.

6.1 Summary of the Present Study

According to the findings obtained from the present research, it is apparent that pupils in Chinese primary school can produce more fluent writing if they are provided with the chance to plan before performing the writing task. On the other hand, if the pupils are given the chance to write without time pressure, they are more likely to produce writing with greater complexity and accuracy. However, from the statistical analysis, the effects yielded by both planning conditions are not significant in comparison to their nonplanning counterpart, except for the effect of pre-task planning on the fluency of writing measured by syllables per minute.

Based on the questionnaire survey carried out amongst the pupils, the researcher discovers that pupils in both planning conditions have considerably fewer mental activities to focus on in comparison to those who performed under the non-planning condition. This can be related to the theoretical framework employed in the present study, Kellogg's (1996) model. Kellogg's (1996) model proposes that writers in planning conditions have lesser cognitive load in writing and therefore, they can perform better than the non-planners.

Other than this, the present study discovers that there was some degree of tradeoff effects taking place among the pupils in both planning conditions as they performed the writing task. In the pre-task planning condition, pupils tend to focus more on language fluency and in the on-line planning condition; pupils tend to yield more complex language rather than the pupils who did not plan at all. The results of the present study slightly contradict with the studies carried out by Ahmadian and Tavakoli, (2011), Yuan and Ellis (2003) and Michel, Kuiken and Vedder (2007) that suggest trade-off occurs between fluency and accuracy of language production.

To further investigate how pre-task planning affects pupils' written production, the present study also examined how pupils performed their pre-task planning. The result of this study reveal that the number of pupils performed strategic planning and task rehearsal is almost equal. This shows that there is a possibility for both types of PTP strategy to have some impact on pupils' quality of writing, especially in the aspect of language fluency as discovered in the present research. Moreover, the analysis of PTP sheets also indicates that Chinese primary school pupils do not master the correct skills to perform pre-task planning.

Moreover, the results of the present study also discovered that pupils in different planning condition also have different perceptions on their writing performance, and their perceptions can somehow predict their actual performance in terms of language accuracy and complexity but not in terms of language fluency.

6.2 Theoretical Implication of the Present Study

The present study provides better theoretical understanding on how planning affects young ESL learners' writing. In the present study, it is found that pre-task planning

enables pupils to write more fluently and on-line planning tends to enhance pupils' language complexity and accuracy. The findings obtained in the present study give SLA researchers an insight that planning conditions may yield different language performance depending on the learners' developmental stage, as the present study is carried out on young learners instead of adult learners in previous studies.

Furthermore, the present study investigates how young learners approach the given writing task. The findings of the present study show that there is a trade-off in between fluency, accuracy and complexity depending on pupils' planning conditions. Pupils who performed pre-task planning tended to compromise their language accuracy to favour the fluency aspect whereas those who performed OLP focused more on language accuracy and complexity rather than fluency. The present study also shows that pupils who are under no planning condition experienced heavier cognitive load as they needed to attend to all mental processes as indicated in Kellogg's (1996) model. These findings are similar with those obtained in Ellis and Yuan's (2004) study. However, the present study discovered that more than half of the participants in the PTP group performed task rehearsal instead of strategic planning in their pre-task learning stage. The participants' preference of pre-task planning might be different from that of adult learners. Nevertheless, the findings of the present study call for more research to investigate young learners' mental processes ultimately affect their performance.

6.3 Pedagogical Implications of the Present Study

As indicated in the findings obtained from the present study, it is found that pupils who performed under OLP condition were better able to produce writings that are more complex and accurate. An implication is that ESL teachers in primary schools should coach pupils the correct ways of monitoring and editing their own writing in order to maximise their performance.

Furthermore, ESL teachers should also teach the pupils the correct ways of planning in order to enhance pupils' fluency in writing, as the findings from the present study show that pupils in the PTP group were able to write more fluent essays in comparison with other planning groups. In this case, teachers should teach them strategies of outlining their writing prior to their actual writing, instead of performing task rehearsal as it would take time and pupils would not have ample time to rehearse the whole task in actual evaluation settings.

Other than that, teachers should also design tasks or test items that encourage primary school pupils to employ both PTP and OLP as both planning conditions complement each other in enhancing the performance in terms of CAF. Employing both pre-task and online planning would help pupils to improve their performance as pre-task planning helps pupils to focus on meaning whilst on-line planning encourages pupils to focus on form.

Moreover, teachers in primary schools should also be mindful of the psychological effects of planning in pupils' perception in writing. As the pupils are given the opportunity to plan, they will have more positive perceptions on the outcomes of their writing. By improving pupils' perceptions in writing, it is hoped that pupils are motivated to write and ultimately improve their proficiency in writing.

6.4 Suggestions for Future Studies

The present study shed light on how younger learners, especially those in the Chinese primary schools context, perform writing tasks under different planning conditions.

However, since very few studies have been carried out in the context of young learners of ESL, the present study calls for more research to be carried out on these learners.

For future studies, researchers can carry out similar experiments on larger population to ensure the findings can be generalised to larger population. Furthermore, pupils from different schools can be selected for future study to increase the applicability of the findings to other primary schools in Malaysia.

In order to increase the generalisability of the findings obtained in the present study, similar studies can also be carried out to young learners of different proficiency levels. In the present study, the researcher controlled the level of proficiency of pupils in order to ensure pupils could elicit ample language for analysis. In future studies, participants can be categorised as low, intermediate and high proficient learners.

Moreover, researchers in future studies can address the issue of time on pupils' implementation of task, as the pupils in the OLP group in the present study did not use more time to implement the task as expected. It may also be one of the reasons that the results obtained by that group were not significantly different than the non-planning group.

Other than that, future studies can also investigate primary school pupils' oral production using the same analytical framework and research design. Similar research have been carried out in other learners' contexts using theoretical frameworks such as Levelt's (1989) model of speech production but primary school context is still a very unexplored learning context.

Furthermore, future studies can also include another experimental group that performs under PTP and OLP conditions to investigate whether this combination can further enhance pupils' written performance. Piri, Barati and Ketabi (2012) have included this group in their study but their research did not include a control group, which is the NP group. As a suggestion, future studies can include a control group in order to make sense of the effects of three planning conditions (PTP, OLP and PTP+OLP) on written performance.

In the present study, the research also discovered that pupils engaged in both pre-task planning types, i.e. task rehearsal and strategic planning. Hence, there is also a possibility for researchers to compare the effectiveness of both types of pre-task planning in future studies. Investigating this aspect can provide an insight on the type of pre-task planning that is more effective in enhancing pupils' written performance.

Moreover, the present study also calls for more investigation on the longitudinal effects of planning on young learners' performance, as the present study is a cross-sectional study. Carrying longitudinal studies can provide better insights for researchers regarding the role of planning in developing young learners' writing proficiency.

In future studies, researchers should also consider training the participants in the PTP group to perform pre-task planning prior to the task. The rationale of training the participants to perform pre-task training is to ensure that the participants are able to perform the "correct" way of pre-task planning, so that future researchers can ascertain whether pre-task planning can yield results with significant difference in comparison with other planning conditions.

Last but not least, researchers can also investigate other forms and genres of written tasks in future studies as the present study focused only on the note expansion task and the genre of narrative writing. Nevertheless, researchers should consider whether the pupils are familiar with the chosen written task as researchers need to obtain pupils' naturalistic output that can represent pupils' real performance.

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6.5 Conclusion

All in all, the present study obtains results that are partially different than those obtained in previous studies. From that, the present study provides an insight on planning conditions affect young learners' written performance. The findings are valuable as previous studies rarely researched on young learners and the present study addresses this research gap. Nevertheless, due to the limitations mentioned in this study, there are still a lot of possible and relevant angles to approach the writing of Chinese primary school pupils.

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