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교육학석사 학위논문

**Effects of Different Types
of Pre-task Planning
on English Oral Task Performance**

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2016년 2월

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ABSTRACT

Under the framework of task-based language teaching and cognitive models of language learning, roles of pre-task planning for L2 speaking task performance have been actively investigated. Planning effects are generally believed to positively affect L2 learners' oral performance, yet the effects on complexity and accuracy have not been clear-cut. In an attempt to enhance the effect of pre-task planning, in particular with regard to complexity and accuracy of production, the present study explored the provision of detailed guidance for strategic planning and the use of rehearsal as an alternative form of planning to strategic planning.

Based on experimental research on 27 Korean high school students at intermediate level, this thesis investigated the effects of pre-task planning on narrative productions under three different planning conditions: free planning (i.e. strategic planning without detailed guidance), guided planning (i.e. strategic planning with detailed guidance to lead the learners to attend to both meaning and form), and rehearsal (i.e. repeating the task as many times as the learners want). Participants were divided into three groups and asked to perform two picture-cued narrative tasks: the first task without planning and the second task after a ten-minute pre-task planning activity which differed according to the method of planning assigned to each group.

Students' oral narratives were analyzed in two ways: by transcript analysis and by assessors' rating. In the transcript analysis, participants' oral performances were transcribed and measured in four aspects: quantity,

fluency, complexity (both lexical and syntactic) and accuracy. These dimensions of L2 production were scored by a variety of indicators. For rating, two experienced native-speaker assessors assigned scores to each narrative, based on rating scales for task completion, fluency and accuracy. The Multivariate Analysis of Variance with repeated measures and paired-sample t-tests were used for statistical analysis. To provide further explanations for the results, retrospective data from the learners were also collected through the post-task questionnaire and interview.

The results presented that pre-task planning had a facilitative effect on the L2 learners' oral task performance as they produced significantly enhanced output under the planned condition in terms of quantity, fluency and complexity, although the immediate benefit on accuracy was not evident. These results suggest that pre-task planning can contribute to L2 learning, by assisting learners to produce a greater amount of output, actively using their linguistic knowledge and reaching the upper limit of their interlanguage competence.

The present study also found that the three types of planning differed in their effect on complexity. While free planning had a moderate influence on both syntactic and lexical complexity, guided planning directed the learners' attention to the lexical aspect through detailed instruction in the guiding worksheet, enhancing lexical complexity at the expense of syntactic complexity, and rehearsal led the learners to produce syntactically more complex language, by engaging them in the gradual revision of output. This result implies that the planning effect can be channeled onto a certain aspect through the manipulation of the planning method.

Despite several limitations, the present study provides empirical evidence supporting the benefits of pre-task planning in the oral task performance and language learning, and suggests the need for a well-designed pre-task planning stage to be adopted in the language classroom, based on this study and further investigations on various elements of planning.

Keyword : pre-task planning, strategic planning, rehearsal, English speaking, picture-cued narrative task, task-based language teaching

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CHAPTER 1.

INTRODUCTION

The present study seeks to investigate the effects of different types of pre-task planning on Korean high school students' English speaking performance in a narrative task. This chapter will present the rationale and purpose of the study, research questions, and the organization of the thesis.

1.1. Purpose of the Study

The importance of oral communicative competence has been generally recognized in English education in Korea and various attempts have been made to incorporate speaking in English classrooms. Inspired by the principles of task-based language teaching (TBLT), school curriculums have adopted speaking tasks as a learning-teaching activity and as an in-class performance test. However, many EFL learners consider speaking tasks to be extremely challenging, since it involves complicated cognitive processes which require utilizing various linguistic knowledge in real-time. It is crucial, therefore, to consider how to implement speaking tasks, in order for learners to perform the task successfully and improve their interlanguage through it.

Among many task variables in the framework for TBLT, pre-task planning has attracted considerable attention from researchers. Planning in advance has much potential to make the speaking task performance a more meaningful

learning experience. When provided with the opportunity to plan the propositional and linguistic content of a task in advance, learners can compensate for their processing limitations, thus the quality of their linguistic output can be enhanced (Skehan, 1996). Empirical studies to date generally supports the claim that pre-task planning enhances the learners' oral production in the subsequent task (e.g., Crookes, 1989; Foster & Skehan, 1996, 1999; Kawauchi, 2005; Mehnert, 1998; Nielson, 2013; Ortega, 1999; Sangarun, 2005; Yuan & Ellis, 2003). However, the effect is found somewhat limited in that while oral fluency invariably improves with planning, when it comes to linguistic complexity and accuracy, either one of them, instead of both, benefits. Pre-task planning enables the learners to attend not only to the message to communicate but also to the linguistic expression, but the attentional resources made available by the planning are not vast enough to enhance both complexity and accuracy.

This limitation of the planning effect on form-related aspects can be partly accounted for by the mediating influences of other variables like task structure or learner proficiency (Kawauchi, 2005; Piao, 2011; Tavakoli & Skehan 2005). More inherently, however, the effect of planning is likely to be strengthened, or weakened by how the planning is conducted. Most of the previous studies just provided the learners with a certain amount of time for planning, leaving the decision on what to prepare entirely to the learners. A few researchers operationalized the method of pre-task planning in an attempt to control what learners prepare while planning and to investigate its influence on the task performance (Mochizuki & Ortega, 2008; Foster & Skehan, 1996, 1999; Sangarun, 2005). Some of the researchers (Mochizuki & Ortega, 2008; Sangarun, 2005) presented the

possibility that pre-task planning when manipulated by a certain specific guidance has a positive effect on both complexity and accuracy, but other researchers (Foster & Skehan, 1996, 1999) did not. With the limited number of studies with mixed results, further empirical data are needed to understand whether the detailed guidance can enhance the planning effect, so that the learner output can improve in a more balanced way.

Another possibility to enhance the role of pre-task planning is provided by the view that rehearsal can be regarded as a type of planning (Ellis, 2005). Most previous studies employed strategic planning as a primary type of pre-task planning. In strategic planning, learners plan strategically the content and language, but it is most likely that the actual performance poses problems beyond their prediction, in particular, regarding linguistic encoding of their intended message. Rehearsal, in contrast, can raise the learners' awareness of the form-related aspects as well, by engaging them in the whole process of the speech production required in the task. Although some empirical evidence supporting this view has been provided by the studies on task repetition (Bygate & Samuda, 2005; Fukuta, 2015; Thai & Boers, 2015), no researcher has explored the effect of planning through rehearsal in a comparable way to the effect of strategic planning.

Despite the increased interest in TBLT, pre-task planning has received relatively little attention from researchers in Korea. In order to provide new empirical findings in Korean EFL context for building a clearer picture of the roles of pre-task planning, the present study intends to examine the effects of pre-task planning on Korean high school students' speaking performance in a narrative task. In addition, this study aims to explore how to make the pre-task planning more effective, by differentiating the types of planning.

1.2. Research Questions

The present study seeks to examine the effects of different types of pre-task planning on Korean EFL learners' oral performance in a narrative task. By doing so, the present study can shed light on the field of speaking instruction in the context of the Korean educational system. To explore the issue of pre-task planning, this study addresses the following research questions:

1. What effects do pre-task planning have on Korean EFL learners' oral performance in a narrative task?
2. Is there any difference in the effects between strategic planning with detailed guidance and unguided strategic planning?
3. Is there any difference in the effects between strategic planning and rehearsal?

1.3. Organization of the Thesis

The present thesis comprises of five chapters. Chapter 1 introduces the purpose of the study and proposes three main research questions. Chapter 2 reviews literature relevant to the present study. Chapter 3 illustrates the methodology employed in this study, while Chapter 4 analyzes data and provides discussion for each research question. Finally, Chapter 5 summarizes major findings of the study and draws a conclusion with pedagogical implications and suggestions for future research.

CHAPTER 2.

LITERATURE REVIEW

This chapter reviews literature relevant to the present study. Section 2.1 discusses the theoretical background of pre-task planning. It includes the process of speech production and focus on form, which provide the rationale for pre-task planning, as well as the three dimensions of speech production and types of pre-task planning, which present the framework for studies on pre-task planning. Section 2.2 reviews the empirical studies in literature in regard to the three research questions of the present study.

2.1. Theoretical Background of Pre-task Planning

2.1.1. Process of Speech Production and Pre-task Planning

In SLA research to date the notion of task planning has been studied with reference to models of speech production, among which the most influential theory is Levelt's (1989) speech production model. This model identifies three different processing components of the speech production process—conceptualizer, formulator and articulator—and each of them generates a certain form of output that becomes the input for the other, while being regulated by a self-monitoring process (See Figure 1).

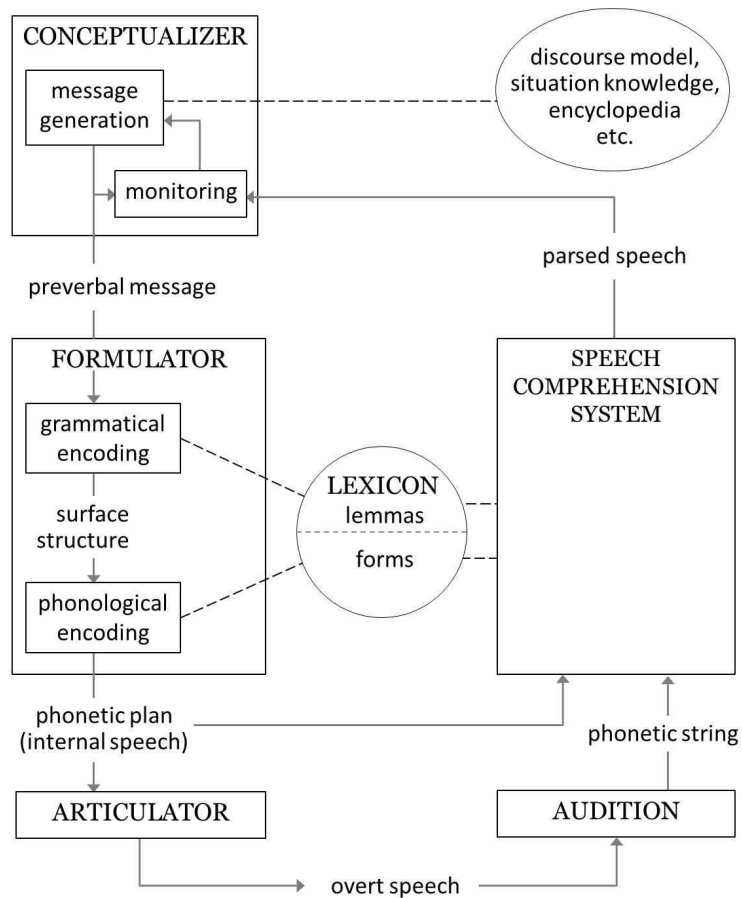


Figure 1. A Blueprint for the Speaker (Levelt, 1989, p.9)

Conceptualizing involves various mental activities to produce preverbal messages. A preverbal message is not linguistic in nature but contains all information needed to convert into language and it is generated in two stages: macroplanning and microplanning. Macroplanning refers to elaborating a communicative goal into a series of sub-goals and retrieving information needed for the realization of each goal. In microplanning the speaker brings

the chunks of information into perspective and assigns each of them a particular information structure. To encode a message the conceptualizer and its message generator have access to two kinds of knowledge. One is declarative knowledge (represented as the ellipse in Figure 1), which includes the speaker's structured knowledge of the world and themselves as well as the situational knowledge of the present discourse situation. The other kind of knowledge is procedural knowledge which is part of the processors themselves. (Levelt, 1989)

The formulator receives fragments of preverbal messages and converts these conceptual structures into linguistic structures. The conversion proceeds in two steps: grammatical encoding and phonological encoding. The grammatical encoder accesses lemmas stored in the speaker's mental lexicon (represented as the circle in Figure 1) and retrieves both semantic and syntactic information, which activates certain syntactic building procedures. The procedure of grammatical encoding results in a surface structure, an ordered string of lemmas grouped in phrases and subphrases. While the surface structure is being formed, the morpho-phonological information belonging to the lemmas is activated and encoded into a phonetic plan, which Levelt (1989) also called 'internal speech'.

Finally, this internal speech is transferred to the articulator. The articulator retrieves chunks of internal speech that are temporarily stored in an articulatory buffer and then unfolds them for execution, leading to the production of overt speech.

According to Levelt (1989), the three stages of speech production are regulated by a self-monitoring process. Self-monitoring involves various

components and works on not only the overt speech but also internal speech and pre-verbal messages. The preverbal message is inspected whether it matches the speaker's original intention, before it is converted by the formulator and the internal speech is inspected before it is articulated as overt speech. Levelt also proposed that speech production processes can take place in parallel and that some of the components work under the controlled processing, while other components operate automatically. In particular, the conceptualizer and the monitor operate under controlled processing, whereas the formulator and the articulator proceed automatically.

Levelt's model, however, aims to describe the normal, spontaneous language production of adult native speakers and needs adaptation in order to explain speech production in the second languages (L2). De Bot (1992) suggests that while macro-planning in the conceptualizing stage and articulating is not language specific, micro-planning is language specific. He also proposes that the formulating components have a separate system for second language from the system for first language (L1), although the two systems are likely to be connected. According to de Bot, L2 speech production is distinguished from L1 speech production in terms of controlled versus automatic processing. When speaking the first language, one can carry out the formulating and articulating processes automatically without attention, although conceptualizing requires controlled processing to retrieve declarative knowledge. However, L2 learners, especially those whose proficiency is limited, need to activate and execute their linguistic knowledge through controlled processing, which poses additional cognitive demand on working memory (Ellis, 2005).

Moreover, in the normal speech production, it is thought that the processes of conceptualization, formulation and articulation overlap and operate concurrently. As a result, for L2 learners, speech production can be an excessively demanding activity and any one or all of the processes can be a potential source of difficulty. They may have difficulty sorting out the conceptual content, or in finding words to express it, or else in articulating the words. Pre-task planning is thought to facilitate L2 speech production, by easing the load of conceptualization and possibly formulation and articulation in advance. In particular, the freed-up cognitive capacity is expected to benefit the formulation process, as much processing resources are required for accessing the lexico-grammatical knowledge and for monitoring to ensure that the ‘draft’ formulation is appropriate (Bygate & Samuda, 2005).

2.1.2. Focus on Form and Pre-task Planning

Much current research on task planning has found the theoretical motivation in the notion of focus on form (Long, 1991; Doughty & Williams, 1998). The term focus on form refers to pedagogical interventions which aim to induce learners to pay attention to linguistic form while they are primarily concerned with meaningful language use. Focus-on-form instruction represents an alternative to both focus on forms and focus on meaning (Long, 1991) in that “focus on form *entails* a focus on formal elements of language, whereas focus on formS is *limited* to such a focus, and focus on meaning *excludes* it” (Doughty & Williams, 1998, p. 4).

It has been recognized in second language research that tasks themselves do not suffice but there needs to be some degree of focus on form within tasks. There are some underlying assumptions for this claim, which are made from the theoretical view of L2 production as information processing. It is generally assumed that attention and noticing are central for second language development and that there are limits on the amount of information that human beings, including second language learners, can process from input or for output (Ellis, 2005). The constraints of the working memory cause learners to prioritize one aspect of language while allocating little attentional resources to another aspect. In addition, it is suggested that the natural priority in communicative activities is toward meaning at the expense of form. In other words, when given a communicative task to transact, learners seek to respond to pressure by focusing on meaning in order to get the task done, and thus form will not be attended to unless there is spare attentional capacity or unless something happens to direct attention to form (Van Patten, 1990).

Providing learners with the opportunity to plan before performing an L2 task can be a means of achieving focus on form pedagogically. First of all, pre-task planning may ease the cognitive load of a given task while learners are engaging in task performance, leading to spare attentional resources made available. As a result learners can also “attend to form and wrestle with form-meaning connections so that what is developed is not simply strategies of communication but also control over a developing interlanguage system” (Skehan, Bei, Li, & Wang, 2012, p. 171). In addition, pre-task planning may foster a shift of conscious attention during the planning phase

to formal aspects of language. Moreover, pre-task planning is different from other types of interventions guided by the principle of focus on form in that focus on form induced by pre-task planning is learner-driven. That is, in pre-task planning the choice of what aspects of the language code to attend to and to what degree is left to the learner. This learner-initiated and learner-regulated focus on form is considered to expand opportunities for form-meaning mapping and for noticing the gap, leading to restructuring and development of interlanguage (Ortega, 1999).

Pre-task planning has been investigated as one of the major task conditions in second language learning research, since Skehan (1996) emphasized its importance in his framework for the implementation of task-based instruction. To achieve the goal of task-based instruction and ensure that a transacting task “engages naturalistic acquisitional mechanism, causes the underlying interlanguage system to be stretched, and drives development forward” (Skehan, 1998, p. 95), it is crucial to choose tasks of the appropriate difficulty, as well as to consider how the selected tasks are implemented. Task-based instruction has a caveat that if not properly implemented, it can create pressure for immediate communication and will not be able to lead to interlanguage change and growth (Skehan, 1996). To provide teachers with a more systematic and principled basis for the implementation of task-based instruction, Skehan (1996) has proposed a framework, which includes planning as an important technique in the pre-emptive stage (see Table 2.1).

Table 2.1.
Methodological Stages in Implementing Tasks (Skehan, 1996, p.54)

Stage	Goal	Typical techniques
Pre-emptive work	Restructuring - establish target language - reduce cognitive load	Consciousness-raising Planning
During	Mediate accuracy and fluency	Task Choice Pressure Manipulation
Post 1	Discourage excessive fluency Encourage accuracy and restructuring	Public Performance Analysis Testing
Post 2	cycle of synthesis and analysis	Task Sequences Task Families

Among the three major stages in implementing tasks, the pre-emptive, or pre-task stage aims to facilitate the incorporation of new elements and re-arrangement of existing elements, which will lead to restructuring of the underlying language system. This restructuring can be achieved by two more specific aims: to establish target language and to reduce cognitive load. First, pre-task activities can work for teaching or making salient the target language that will be relevant to task performance. This can be attempted in various ways from a traditional one in which the relevant language for a task is set up through some form of pre-teaching to a more radical one which just give learners a pre-task activity to do and equip them with the language that they need.

The second aim of the pre-emptive stage is to reduce cognitive load that learners will encounter while actually performing a task. When the

processing load is eased, more attention will be paid not only to communicative goals but also the actual language used, thus leading to more attempts to use complex language and to achieve greater accuracy, which will contribute to restructuring of the interlanguage system. Skehan has presented a number of different pre-task activities to manipulate the cognitive familiarity of the task, such as listening to or reading the sample performance of comparable tasks or engaging in a related pre-task for the activation of schemas. The most important technique he has suggested, however, is to ask learners to engage in pre-task planning, which is the main theme of this thesis. He has claimed that by planning the language to use or the meanings to express, learners will be able to “devote more attention to how they are going to carry out the task, and can thereby produce more accurate, complex and fluent language” (Skehan, 1996, p. 54).

2.1.3. Complexity, Accuracy and Fluency in Speech Production

Many studies of task-based language performance use fluency, accuracy, and complexity to capture different aspects of second language performance. Skehan (1996) proposed this three-way distinction, regarding them as constituents of a learner’s language proficiency as well as of the general goal in second language learning. Fluency relates to the ability to mobilize one’s linguistic resources to communicate meaning in real time. Accuracy refers to the capacity to use currently attained interlanguage in accordance with target language norms avoiding errors. Complexity concerns the

utilization of more advanced language and the elaboration of the underlying interlanguage system.

According to Skehan (1998) these three aspects of performance need to be distinguished because they draw on different systems of language. Fluency reflects the primacy of meaning and the capacity to cope with real-time communication. It is likely, therefore, to require learners to access their memory-based system and rely on lexicalized knowledge of language while getting by with communication strategies, rather than drawing on the rule-based system. (Foster & Skehan, 1996)

Accuracy and complexity both concern form and induce learners to draw on the rule-based system, but in different ways. Accuracy focuses on avoidance of errors and may therefore reflect a learner's attempt to control existing resources as well as a more conservative orientation, which means a tendency to avoid challenging areas where error may occur. In contrast, complexity draws attention to more elaborate language and a greater variety of syntactic patterning. Complexity captures the learners' greater willingness to take risks, using forms closer to the upper limit of their interlanguage system and experimenting with recently acquired structures, which may result in 'restructuring.' In sum, complexity is associated with change and the opportunities for development and growth in the interlanguage system, whereas accuracy connects with control at a particular interlanguage level (Foster & Skehan, 1996).

Skehan (2009) also proposed that an acquisitional dynamic is implied in these three aspects of task-based language performance. Complexity, or emerging language, involves change and development, but it is also

associated with possible error. This possible error demonstrates a need for greater control, which ultimately leads to greater accuracy, as the new language is used with greater facility. Although error may be avoided, performance may draw on a rule-based system which has not yet been automatized and thus probably is halting and slow. The next stage is to acquire a much higher level of control, to proceduralize the new language and to correctly produce it with fluency, without excessive interruptions to flow and without need to apply rules consciously.

Theoretically it is assumed that pre-task planning can contribute to all these three aspects of L2 performance. First, planning can reduce the on-line processing load and ease communicative stress, resulting in higher fluency. It can also facilitate the allocation of conscious attention to form and thus lead learners to generate more accurate language. Finally, it may help learners to access their maximal level of lexical and structural knowledge, which, in turn, will enable them to use more complex language. (Kawauchi, 2005)

In light of the information processing theory, however, Skehan (1998) has assumed that learners are not able to attend to every aspect of language during speech production, because of the limit in their processing capacity. Consequently, decisions about the prioritization of attentional resources have to be made during communication and learning. Skehan has suggested this trade-off hypothesis between fluency, accuracy and complexity, (in particular between the last two) based on the findings of his empirical studies, which will be detailed in the review of previous studies later in this chapter.

2.2.2. Types of Task Planning

Ellis (2005) has seen planning as an integral part of spoken language use and said that speakers have to decide what to say and how to say it even when the speech appears effortless and automatic. According to him, planning is basically a problem-solving activity, which “involves deciding what linguistic devices need to be selected in order to affect the listener in the intended way” (p. 3). From this point of view, he proposes a categorization of principal types of task-based planning. Two principal types of task planning are distinguished in terms of when the planning takes place: pre-task planning (i.e., planning before the task is performed) and within-task planning (i.e., planning during the task performance).

Ellis (2005) further divided pre-task planning into strategic planning and rehearsal. Strategic planning relates to “planning what content to express and what language to use but without opportunity to rehearse the complete task” (Ellis, 2009, p. 474). Strategic planning is different from other types of pre-task activities such as observing a model performance of the task or studying pre-taught vocabulary items, in that strategic planning allows learners to access the actual task materials and to directly deal with the content and language needed to complete the task. Rehearsal takes the form of an opportunity to perform the complete task before the main task performance. That is, rehearsal involves task repetition with the first performance of the task regarded as a form of planning for the performance carried out again subsequently.

Within-task planning is distinguished into two types according to the extent to which the task performances is pressured or unpressured, though the distinction between pressured and unpressured task performance is rather continuous instead of dichotomous. The differentiation between pressured and unpressured within-task planning can be achieved most easily by manipulating the time which is made available to learners for the on-line planning of their speech. In an unpressured performance learners can engage in more careful and deliberate online planning as well as monitoring of their ongoing language use, which is not possible in a pressured, rapid production.

Ellis (2005) has suggested that planning in general can contribute to second language acquisition, because planning in general can help learners to access their L2 knowledge through controlled processing and to promote selective attention to form and monitoring. In distinguishing types of planning, however, Ellis (2009) also has predicted that different types of planning will impact task performance somewhat differently. This prediction is based on Levelt's (1989) speech production model, which will be described in section 2.2 and made from the consideration of what components of spoken language production learners might focus on while planning. Strategic planning, for example, can be considered likely to assist conceptualization in particular and thus contribute to greater message complexity and also to enhanced fluency, whereas rehearsal may provide an opportunity for learners to attend to all three components, so it would seem reasonable to assume that this type of pre-task planning will lead to all-round improvements when the task is repeated (Ellis, 2009).

2.2. Previous Studies on Pre-task Planning

2.2.1. Previous Studies on Strategic Planning

Among the different types of planning, strategic planning and its role on task performance have attracted the most attention from researchers. A number of empirical studies have investigated the effects of strategic planning in terms of fluency, accuracy, and complexity, and generally support the beneficial role of strategic planning although there are a few exceptions. These studies reporting that there are no significant differences in any aspects between planned and unplanned speech production (e.g., Elder & Iwashita, 2005; Kim, M., 2014; Wigglesworth, 1997; Wigglesworth & Elder, 2010) are the ones carried out in a test-setting. In these studies learners are required to talk to an audio recorder in an unfamiliar environment to complete the task under the pressure of a time limit after having at most three minutes of planning time. Such conditions could reasonably cause higher anxiety and pressure and allow less chance for learners to deploy the planning opportunity.

If the results of the studies in the test-setting are set aside, a general finding in the literature is that strategic planning impacts positively on language production, evidently where fluency is concerned (e.g., Foster & Skehan, 1996, 1999; Kawauchi, 2005; Lee, H., Oh, M., & Shin, Y., 2007; Mehnert, 1998; Nielson, 2013; Ortega, 1999; Sangarun, 2005; Skehan & Foster, 1997). Having an opportunity in advance to plan what and how to say something appears to enable learners to perform a task with higher

speed and fewer pauses, presumably because they need less effort in accessing linguistic sources during the task, as they have accessed them prior to the performance of the task (Ellis, 2009).

When it comes to complexity and accuracy, however, mixed results have been reported. Theoretically, strategic planning is expected to contribute to learners producing more complex and more accurate language in the subsequent task, by enabling more ambitious ideas to be attempted, activating knowledge related to forms in advance, making more processing resources available, and possibly inducing greater attention on form. In most of the studies, however, either complexity or accuracy (not both) is found to be positively influenced by strategic planning.

Foster and Skehan (1996) investigated the effects of strategic planning, comparing three different planning conditions: no planning, undetailed planning and detailed planning. According to their results, detailed planning was associated with greater complexity of language during the task but had no significant effect on accuracy, while undetailed planning promoted accuracy, rather than complexity. Skehan and Foster (1997) reported different results on complexity and accuracy according to the task types. In personal-information tasks and decision-making tasks, the planners produced significantly more complex language than the non-planners, but a matching increase in accuracy was not found. In contrast, for narrative tasks the opposite happened: planned output was significantly more accurate than unplanned output, but the difference in accuracy was not significant.

Based on these findings, a trade-off between complexity and accuracy was proposed. Strategic planning may allow learners to have more attentional

resources available for accessing the rule-based system and dealing with form, but more often than not it seems to be the case that processing capacity is limited and learners need to prioritize one aspect of performance over the others. The prioritization leads to the goals of complexity and accuracy competing for the limited information processing resources, resulting in a trade-off between them (Skehan, 1998).

The findings in other empirical studies to date have supported this claim. Some studies found that strategic planning aided complexity but not accuracy. Crookes (1989), Yuan and Ellis (2003) and Nielson (2013) suggested the benefits of strategic planning on complexity but not on accuracy. In Ortega (1999), planned output showed more complexity while the effect on accuracy was limited to only one of the specific grammatical features measured. Other studies reported the opposite results: accuracy was promoted while complexity was not evidently affected by strategic planning (Lee et al., 2007; Mehnert, 1998; Mochizuki & Ortega, 2008). In Piao (2011), which investigated the effects of strategic planning with a variable of the learners' proficiency level, strategic planning had a significant benefit on accuracy (but not on complexity) for high proficiency learners, whereas it generated the increase in complexity (but not in accuracy) for low proficiency learners.

Regarding the competing goals of complexity and accuracy, no clear conclusion has been drawn yet and more empirical studies are needed. It is uncertain what condition promotes orientation of attention toward complex language use and what condition is associated with attentional allocation toward accurate language. It also needs to be explored whether this trade-off

is inevitable or it can be overcome by additional pedagogical intervention so that the learners' limitation in their cognitive capacity can be expanded to handle both formal aspects of L2 performance.

2.2.2. Previous Studies on Strategic Planning with Detailed Guidance

In view of Levelt's speech production model, strategic planning is likely to primarily assist conceptualization, though it may also have some impact on formulation and articulation. Learners may have accessed relevant linguistic resources while planning and will more easily access them again during formulation and articulation. If orientation is biased toward contents, however, strategic planning may not benefit complexity and accuracy, which compete for the limited processing resources. (Ellis, 2009)

In order to cope with the meaning primacy of the learner's attentional allocation and to direct the learner's attention in a more balanced way, attempts can be made to manipulate the way that the strategic planning is conducted. A few previous studies made such attempts by comparing the effects of strategic planning when a specific instruction is given with the planning without instruction, or by comparing the effects of strategic planning under different guiding instructions.

Foster and Skehan (1996) operationalized planning condition as detailed and undetailed, by giving detailed planning group guidance on how they might use the planning time to consider the syntax, lexis, content, and organization of what they would say. They hypothesized more detailed

planning would lead subjects to use planning time more effectively, which will increase the possibility that all three aspects of language performance are enhanced. The results, however, showed that while fluency benefited from the provision of the guidance, complexity and accuracy were subject to the trade-off effect. It is especially remarkable that accuracy was not significantly enhanced by the detailed planning, while complexity was, and that rather undetailed planning produced more accurate language use than the other two groups.

Differently from the detailed planning in Foster and Skehan (1996) where the general guidance required learners to focus on both contents and language, guided planning in Mochizuki and Ortega (2008) aimed to direct learners' attention toward a specific L2 form by giving them grammatical guidance. Only guided planning (not unguided planning) induced more frequent and more accurate use of the target structure, which was relative clause. Based on the result, Mochizuki and Ortega suggested that guided planning can enhance both complexity and accuracy, though limitedly in regard to a specific form.

Foster and Skehan (1999) operationalized strategic planning as teacher-led, solitary, and group-based planning, according to the sources of planning. Foster and Skehan found that strategic planning had a selective impact, teacher-led planning favoring accuracy and solitary planning promoting fluency and complexity. Group-based planning was found to be ineffective. The researchers also attempted to compare content-focused planning and language-focused planning, but no significant difference was found, since the planning condition was not operationalized according to the focus of

planning as they intended and under teacher-fronted condition the two areas were inevitably presented together.

Another study that compared the effects of different foci in planning is Sangarun (2005). He divided strategic planning into three types according to the focus of planning (meaning-focused, form-focused and meaning/form-focused) and provided each with different planning note-sheets. The results suggested that while meaning focused planning and form-focused planning were limited in their effect, meaning-form-focused planning had a potential to positively impact both accuracy and complexity. When given the note-sheet that induced learners to plan both meaning and form for their speech, significantly more complex and accurate language in the argumentative task was produced, while the increase in fluency was not significant. Based on the findings Sangarun suggested the guided strategic planning with focus on both meaning and form may have aided the learners “to achieve a balanced orientation between elaborated meaning and accurate form” by leading them “to plan only the essential ideas” (Sangarun, 2005, p. 128). This result, interestingly, conflicts with Foster and Skehan’s (1996) finding about detailed planning.

Previous studies on strategic planning with detailed guidance proposed the potential that strategic planning, when properly implemented, can help learners to expand their L2 oral competence in all of the three aspects of language performance. However, since only a few studies probed the planning condition (i.e., with or without detailed guidance) generating inconsistent results, more empirical research needs to be done.

2.2.3. Previous Studies on Rehearsal

In the previous section, studies on the provision of detailed guidance was reviewed from the expectation that it can make the pre-task planning more effective in helping learners to enhance their oral output in regard to complexity and accuracy as well, not to mention fluency. Another way to achieve this goal (i.e. inducing learners to attend to not only contents but also linguistic code when they plan and perform the task) can be adopting another type of pre-task planning: rehearsal. The effect of rehearsal on L2 performance has been reported by several studies on task repetition. Ellis (2005) took task repetition as a special form of pre-task planning in his categorization of types of planning, in that performance of a task at one time can be seen as providing planning for performance of the same task at a second time.

Task repetition and the ensuing rehearsal effect were thought to be effective in promoting attention on formal aspects during L2 production for several reasons. Learners familiarize themselves with content at the initial task performance, which frees up their attentional resources, allowing learners to have more processing space available for formulating the language to accomplish the task in the second performance. Compared to strategic planning, rehearsal has a greater potential for positive impact on the actual linguistic encoding of the message, because learners are involved in the whole process of task performance including not only conceptualization but also formulation and articulation. Planning through rehearsal, as a result, may be more finely tuned to the needs of linguistic encoding and is less likely to

generate excessive plans for contents, which will take attentional resources away from formal aspects (Bygate, 2001; Bygate & Samuda, 2005).

However, earlier investigations on task repetition did not find a positive effect of rehearsal on both complexity and accuracy. In Bygate (2001) while fluency and complexity were enhanced by task repetition, the increase of accuracy was not significant. Ahmadian and Tavakoli (2010) reported the findings consistent with Bygate (2001). Ahmadian and Tavakoli investigated the effects of simultaneous use of careful online planning and task repetition. Task repetition, taken separately from online planning condition, was found to have a significant effect on fluency and complexity of L2 production but not on accuracy. Gass, Mackey, Alvarez-Torres, and Fernandez-Garcia (1999) found that task repetition positively impacted both complexity and accuracy in L2 Spanish production. Their result needs to be interpreted cautiously, however, because complexity in this study only concerned lexical range (i.e., the amount of low-frequency words), not dealing with syntactic aspects, and the effect on accuracy was clear only in a specific grammar feature (target-like use of the verb *estar*).

In contrast, recent studies by Fukuta (2015) and Thai and Boers (2015) found the significant positive effect of task repetition on all three aspects of speech production. Fukuta (2015) compared the performing of the identical task twice and the performing of two different tasks of the same type. In both cases, the second task performance showed higher proficiency in terms of fluency, complexity and accuracy than the first task performance, but the differences were significant only when the identical task was repeated, supporting the rehearsal effect. Thai and Boers (2015) aimed to compare

task repetition with or without increasing time pressure and reported the consistent findings (i.e. improved fluency, complexity and accuracy) in the case of task repetition without shrinking time, which means task repetition in normal conditions can promote both accuracy and complexity of L2 production, not to mention fluency.

It has been suggested that planning through rehearsal may help learners to attend to form as well as meaning and to enhance complexity and accuracy, as well as fluency of their L2 oral performance. Previous studies with inconclusive results, however, explored the rehearsal effect by comparing the performances of two identical tasks, regarding the first performance as a planning task and the second as a main task, rather than fully deploying rehearsal for pre-task planning. Moreover, all the studies but Thai and Boers (2015) involved more than one week's time interval between the two task performance, which might have weakened the role of the prior task performance as rehearsal. It is needed, therefore, to investigate the effect of planning through rehearsal in a comparable way to strategic planning by adopting planning as a means of pre-task planning.

CHAPTER 3.

METHODOLOGY

This chapter details the methodological design of the study that includes the description of participants, research design, tasks, procedure for data collection and data analysis.

3.1. Participants

Data were collected from twenty seven 11th grade students of a public high school in Seoul Korea. Four of them are female and twenty-three are male. None of the participants had experience of living abroad and had learned English for eight to ten years in EFL settings. The participants were recruited from the researcher's English class and their level of general English proficiency could be classified as intermediate, considering the results of the preliminary test. The preliminary test was administered as a diagnosis test at the beginning of the semester and it consisted of the sample questions made open by TEPS. The participants' scores in the test showed that they had English proficiency of Level 3 to Level 2 according to the TEPS score and level description (see Table 3.1). Thirteen participants reported their actual TEPS scores as well, which ranged 463 to 665 ($M=573$). Based on the preliminary test results and the reported TEPS scores, the participants were grouped into nine sets of three learners whose proficiencies are similar.

The three learners in each set were randomly assigned to one of the three experimental groups, to minimize possible effects of proficiency difference between the groups.

Table 3.1. Participants' Proficiency Level Based on TEPS

Level	Score	Level description	Participants number
2	601~700	High intermediate The test taker will be able to do general tasks in English with a medium-length to long, intensive training period.	6
3+	501~600	Mid intermediate The test taker will be able to do limited tasks in English with a medium-length to long, intensive training period.	14
3	401~500	Low intermediate The test taker will be minimally able to do limited tasks in English with a medium-length to long, intensive training period.	7

3.2. Research Design

The study employed both within-subjects and between-subjects designs. The participants completed both the unplanned and planned tasks, so that their speech productions under the planning condition can be compared with their speech production under the unplanned condition. This within-subjects comparison is believed to show the planning effects more clearly. When performing the planned task, the participants were assigned to one of three

groups, for the investigation of the difference in the effects of three different types of pre-task planning: strategic planning without detailed guidance, strategic planning with detailed guidance and planning through rehearsal. The basic design for the experiment is shown in Table 3.2.

Table 3.2. Experimental Design of the Study

GROUP	Free Planning Group (n=9)	Guided Planning Group (n=9)	Rehearsal Group (n=9)
unplanned task	Task 1	Task 1	Task 1
planning	strategic planning without detailed guidance	strategic planning with detailed guidance	planning through rehearsal
planned task	Task 2	Task 2	Task 2
post-task interview	questionnaire interview	questionnaire interview	questionnaire interview

In each planning condition, the participants were given ten minutes and required to plan their performance in terms of content as well as language. The length of planning time was decided based on the previous studies and was tested by a pilot study. Prior to the main research the pilot study determined that ten minutes would be adequate for the participants to plan the narrative task used in the study.

The free planners were instructed to plan the content and language for the task performance, while using the ten-minute planning time freely. A piece of blank paper was given for them to make notes if needed for the convenience of planning but there was a notification that the learners' notes would be taken away before they began to speak.

In the guided planning group, the instruction was basically the same except that the learners were asked to follow the guide given in the form of a worksheet. The participants were told that this guide was provided to aid in planning and that the guide would not be used while speaking. Since the purpose of providing the detailed guidance is to prevent the participants from overusing their planning time for content and to direct attention toward the formal aspects of the language as well, like the meaning-form-focused planning in Sangarun (2005), the guiding worksheet was designed to involve the participants in a three-step planning system (see Appendix 1). First learners were required to decide what to tell to describe the story in each picture and write down the key phrases (6 minutes). The second step instructed the learners to check the verb forms for the correct use and read aloud the key phrases (2 minutes). Finally, learners were told to go over what was planned and consider how to link the phrases to ensure a smooth flow (2 minutes).

The participants in the rehearsal group were told to rehearse by saying aloud what would be said in the actual performance. First the participants were required to start speaking immediately and complete the task without planning. After the first rehearsal, learners were told to take time to consider how to revise the content and language and have a rehearsal again. Making notes was not allowed to maximize the chances of engaging in oral

rehearsals, rather than exploiting strategic planning. Participants repeated the rehearsal as many times as the planning time allowed.

Unlike most previous studies, the current study allowed the participants to use a cell phone dictionary while planning. The allowance was done to reflect more naturalistic conditions of task planning in the classroom setting. In the two strategic planning groups, the participants consulted the dictionary as desired during the planning session, but the rehearsal group was told to use it only between rehearsals, as not to disturb the performance during the rehearsal.

3.3. Tasks

A picture-cued narrative task, which is also known as an oral narrative picture task or a picture story-telling task, was chosen for this study. There are several reasons for this choice. First, narrative tasks are monologic rather than dialogic. Second language learners' oral productions in the interactive tasks are subject to the influence of interlocutor variables, such as proficiency, personality, and dominance in the conversation, which will make it difficult to analyze the effect of planning on individual learners' task performance. Secondly, in a picture-cued narrative task, learners elicit the content from the given pictures. Therefore, too much individual variation in the content can be prevented and the learners' performances are less likely to be influenced by topic and cognitive load of producing and organizing ideas. In addition, there is a long history of using this picture story-telling in other studies of planning (e.g., Foster & Skehan, 1996; Fukuta, 2015;

Kawauchi, 2005; Lee et al., 2007; Mochizuki & Ortega, 2008; Nielson, 2014; Ortega, 1999; Piao, 2011, Skehan & Foster, 1997) and thus comparison with the results of these studies would be easier.

In this study, two different sets of pictures were employed in order to minimize the practice effect resulting from repetitive use of a single picture set. Both picture sets were chosen from the task pictures which were developed for the TEPS speaking test and made open. Each picture set consists of a series of six pictures, as shown in Appendix 2.

The two picture sets were considered to be similar in task difficulty, as perceived by the participants. Table 3.3 shows the results of post-task survey on the participants' perception of the task difficulty. As for how difficult the picture set of each task was to describe, participants were asked to choose among 'very easy', 'easy', 'somewhat easy', 'somewhat difficult', 'difficult' and 'very difficult', which were coded into scales from 0 to 5. The results of paired t-tests suggested that there was no difference in the perceived difficulty of the two tasks.

Table 3.3. Perceived Difficulty of Tasks

		free planning group	guided planning group	rehearsal group	total
Task 1	Mean	2.56	2.56	2.67	2.59
	SD	.882	.882	.866	.844
Task 2	Mean	2.56	2.11	2.89	2.52
	SD	.527	.928	.782	.802
paired t-test	t	0	1.512	-.555	.372
	sig.	1.000	.169	.594	.713

Unlike the TEPS speaking test and many other test settings, this study did not set any time limit within which learners have to complete the narrative. Time pressure is likely to inhibit the learners from displaying their usual communicative competence, which possibly will cause the learners to fail to complete the narrative (i.e., not describing some pictures at all) or deliver too simple and short outcomes to analyze.

The task instruction was given orally in Korean and provided the participants general directions as to how to complete a narrative task. To obtain sufficient output displaying the learners' full competence, the current study encouraged the participants to elaborate the story rather than simply telling the gist of what was happening. Participants were instructed to try to include details to describe place, weather, emotions, etc. and to use their imagination about what is not overtly shown in the pictures. The task instruction is presented in Appendix 3.

3.4. Procedure

Prior to the main experiments, the participants were given a chance to become acquainted with the picture-cued story-telling task. The task was introduced as part of class activities in the English class that the participants attended. The picture set for this familiarization task (see Appendix 2) was also taken from the previous TEPS speaking part and the learners performed the task without an opportunity for planning, after receiving a brief instruction about how to tell a story based on the pictures and watching the

researcher's demonstration.

Data were collected by the researcher in individual sessions with each participant over the period of two weeks. The experiments were conducted in a quiet classroom after school and the whole session with each participant took approximately 30 minutes. An introduction of the experimental procedures was given first and Task 1 was performed under the unplanned condition. The participants received the task instruction and then had 30 seconds to look at the pictures. They were given a chance to make clear their comprehension of the pictures by asking the researcher questions about whatever they found unclear in the pictures, before they started to speak. Task 2 was carried out under the planned condition. The participants were told that they would have 10 minutes for preparation, so that they could better describe the story with proper expressions. Participants were also reminded that while planning they should pay attention to the correct use of vocabulary and grammar as well as the content of the story. They had 30 seconds to figure out the story while looking at the pictures and an opportunity to ask clarifying questions regarding the pictures. After planning a narrative for 10 minutes following the directions for each group, participants told the story. The performances of both tasks were audio-recorded.

During the planning phase before Task 2, the participants' planning behaviors were observed by the researcher and notes were taken as to how they spend time and what they actually did for planning. The notepads given to the free planning group and the worksheets given to the guided planning group were collected, and the planning phases of the rehearsal group were audio-recorded for reference and further investigation.

After the two tasks were completed, each participant was surveyed through a questionnaire and a follow-up interview which were conducted in Korean by the researcher. The questionnaire (see Appendix 4) consisted of 6-point Likert scaled items that inquired about the participants' perception toward the tasks and the usefulness of the pre-task planning, as well as what was attended to while planning and while performing the task. The interview was conducted in an unstructured way, to seek explanations from the participants regarding responses to the questionnaire. These retrospective data from the post-task session were used to provide information on the learners' side for the account of the production data, since what learners actually did and attended to may affect the effects of pre-task planning.

3.5. Data Analysis

3.5.1. Transcript Analysis

The recorded task productions were transcribed and analyzed in terms of fluency, accuracy and complexity, as in the previous studies on pre-task planning. In addition, the quantity of speech was taken into account in this study, because the amount of speech produced by learners can partly reflect their ability to generate and express plenty of ideas for task completion. Ten measures, which have been frequently used in the previous studies, were employed to indicate the four aspects of language performance. Table 3.4.

summarizes what feature of learner language each measure indicates and how each measure is operationalized. An example of the transcript of a learner's speech output and its analysis in terms of fluency, accuracy and complexity are provided in Appendix 5.

Table 3.4 Measurement for Transcript Analysis

category	measure	operation
quantity	pruned word count	# of words in pruned speech
fluency	speed raw speech rate	# of syllables in raw speech per one minute
	breakdown fluency total pause length	ratio of pausing time to speaking time
	repair fluency number of repairs	# of occurrences of repair per 100 words
accuracy	overall accuracy error-free clauses ratio	ratio of # of error-free clauses to # of clauses
	number of errors	# of errors per 100 words
	specific accuracy correct verb forms ratio	ratio of # of verbs in correct form to # of verbs
complexity	syntactic complexity AS-unit length	# of words per one AS-unit
	subordination	# of clauses per one AS-unit
	lexical complexity low frequency words ratio	ratio of # of Beyond 2000 words to # of words

In regard to the quantity of task production, pruned word count was measured. Pruned word count refers to the total number of meaningful words and it was counted from the pruned transcripts of the learner's oral production. Here, pruning means removing meaningless or redundant words produced due to some problem in the L2 performance, such as fillers like *uh*, *um* or *well*, time-gaining phrases like *what can I say?*, and any words spoken in Korean. The words which the learners abandoned because they regarded them as mis-produced were also pruned out. In other words, pruned word count excluded repaired words, which were repeated, reformulated or substituted.

Fluency is a multifaceted construct. To tap into these multiple components of fluency the present study adopted three measures, based on the categorization suggested in Tavakoli and Skehan (2005). For more balanced view of fluency, a distinction was made between the speed of speech and disturbance to the flow of the speech, and the flow measures were again categorized into breakdown fluency and repair fluency. Breakdown fluency concerns the number, length, and distribution of pauses in speech. Repair fluency concerns the occasion where the speaker's attempt to repair disturbs the flow of speech. Repair includes repetitions, replacements, reformulations, and false starts, defined by Foster and Skehan (1999) as follows:

- ◆ Repetitions: Words, phrases or clauses that are repeated with no modification whatsoever to syntax, morphology or word order
- ◆ Replacements: Lexical items that are immediately substituted for another

- ◆ Reformulations: Words, phrases or clauses that are repeated with some modification to syntax, morphology, or word order
- ◆ False starts: Utterances that are abandoned before completion and that may or may not be followed by a reformulation

In respect of speed, raw speech rate was measured by computing the mean number of syllables per minute. The number of syllables used were counted from the raw script of the learners' oral production, including all utterances the learner produced except for fillers, including part of a word. To indicate breakdown fluency, (or dysfluency, to be more precise), total pause length was employed. It refers to the total amount of unfilled pauses (i.e., silence) and filled pauses (i.e., fillers like *uh*, *um* or *well* and time-gaining utterances like *what can I say* or *wait a moment* either in Korean or English). Total pause length was measured by the difference of the total speaking time and the actual articulation time excluding filled and unfilled pauses and was re-calculated into pausing time per one minute because the total speaking time varied. A sound-editing software (GoldWave v5.70) was used in identifying pauses and calculating the actual articulation time. Repair fluency was represented by the number of repairs per 100 words. The numbers of the occurrences of false starts, reformulations, replacements and repetitions were totaled, divided by the pruned word count and then multiplied by 100.

Among a number of different measures that researchers have used to measure accuracy, the present study chose three indicators: error-free clauses ratio, the number of errors per 100 words, and correct verb forms ratio. The

first two both represent the amount of errors. Since error-free clauses ratio, though the most frequently used in literature, has been found to be influenced by the length of clause (Skehan & Foster, 2012), the number of errors was employed as a complementation.

In addition to these two measures concerning overall accuracy, correct verb forms ratio was measured to look into the accuracy of a particular grammatical area. Correct verb forms ratio relates to “the percentage of accurately used verbs in terms of tense, aspect, modality, and subject-verb agreement” (Yuan & Ellis, 2003, p.14), the purpose of including this was to see whether the specific accuracy increases when learners are required to attend to the relevant grammar feature. Verb form was chosen because it is one of the basic grammatical areas of which all the participants have a good understanding, and the guided planning group were instructed to work on the correct use of verbs.

In the analysis of accuracy, pruned transcripts were used, with all the repairs being excluded, because repairs were considered as temporary mistakes and self-corrected by the speakers. Errors were identified by a native-speaker instructor with an English education major, and double-checked and counted by the researcher. Errors in morphology and grammar, wrong word choices, and incorrect word order were all considered as errors, but the incorrect use of article was not counted as an error because they are made too frequently by Korean learners of English and found even in the advanced learners’ speech.

In considering complexity, both syntactic and lexical complexity were operationalized. Like accuracy, the measurement of complexity was based on

the pruned version of transcripts. Two syntactic complexity measures were adopted, both of which involve AS-unit. AS-unit is a basic unit for analyzing spoken language, proposed by Foster, Tonkyn and Wigglesworth (2000) and is defined as “a single speaker’s utterance consisting of an independent clause or sub-clausal unit, together with any subordinate clause(s) associated with either” (p.365), where an *independent clause* is “a clause including a finite verb” (p.365), an *independent sub-clausal unit* refers to “either one or more phrases which can be elaborated to a full clause by means of recovery of ellipsed elements from the context of the discourse or situation” (p.366), and a *subordinate clause* means “a finite or non-finite verb plus at least one other clause element (Subject, Object, Complement or Adverbial)” (p.366).

As a marker of overall syntactic complexity, AS-unit length (i.e., the mean length of AS-units) was calculated by dividing the total number of words by the total number of AS-units. To investigate the complexity of sentence structure, an index of subordination was operationalized as the proportion of the clauses to AS-units in the task production. Since the participants of the present study had acquired some of the various subordinate devices, this measure of subordination was thought to serve as an effective indicator of syntactic complexity of their L2 outputs.

Many previous studies have employed only syntactic measures for the investigation of complexity, but another aspect that cannot be omitted in order to examine the learners’ challenging use of language is lexical complexity (Skehan & Foster, 2012). As for lexical sophistication, the current study measured the low frequency words ratio, based on an index

termed Beyond 2000. Beyond 2000, proposed by Laufer (2005) distinguishes between the 2,000 most frequent words of English and those beyond this threshold. This measure was able to identify learners who have advanced beyond a basic vocabulary (Daller, Van Hout, & Treffers-Daller, 2003), and seemed well suited for the analysis of the discourse produced by intermediate-level learners like the participants of the present study. Low frequency words ratio was operationalized as the number of Beyond 2000 words (types, not tokens) divided by the number of words (types) in the pruned speech. The number of Beyond 2000 words was counted with the help of the lexical profiler on Tom Cobb's Lexical Tutor web-site (www.lextutor.ca).

3.5.2 Assessor's Rating

Most previous studies tapped only the transcript analysis of spoken production, even though there were a few exceptions conducted in the test settings which focused on the scores assigned by assessors. (Elder & Iwashita, 2005; Kim, M., 2014; Wigglesworth, 1997; Wigglesworth & Elder, 2010). This study also employed assessor's ratings for the investigation of L2 task performance, because the ultimate effectiveness of the spoken discourse can be determined by how it is aurally perceived and understood by the listeners. Although analyzing the transcripts by means of a variety of measures enables us to quantify the features of language performance, it misses the essential natures of oral production that distinguishes speaking from writing.

The audio-recorded task performances were rated by two native speaker assessors using the scoring rubric, developed for this study (see Appendix 6). The rubric consisted of three criteria—task completion, fluency and accuracy—each of which was evaluated on a 6-level scale from 0 to 5. The three criteria were chosen because they are basic areas evaluated in many speaking tests, as well as for the purpose of comparison with the results of the transcript analysis. Fluency and accuracy have their corresponding aspects in the transcript analysis. Task completion can be associated to some degree with the quantity of speech in that it is related to the amount of ideas expressed in the speech. No criterion of rating was set concerning complexity.

Table 3.5. Assessor Details

	Assessor 1	Assessor 2
gender & age	male, 41	female, 33
nationality	British	American
experience of teaching English	8 years in Korea	2 years in Philippines 5 years in Korea
experience of assessing speaking	8 years (TOEFL, TOEIC)	2 years (TOEIC)

Both assessors are experienced EFL instructors and details about them are given in Table 3.5. Three performances of Task 1 were rated by the assessors first. The researcher compared two sets of scores and discussed a

few discrepancies in the scores with the raters, so that they can adjust the application of the rubric. Then the rest of the recorded productions of Task 1 received two independent ratings from the two raters. For the scoring of Task 2 the same procedures were repeated. To confirm the inter-rater reliability Pearson correlation coefficient and intra-class correlation coefficient were estimated. The results in Table 3.6 showed that there was adequate inter-rater reliability. In case the two scores did not agree, the average was used for analysis.

Table 3.6. Inter-rater Reliability

criteria	Task 1		Task 2	
	Pearson correlation coefficient	Inter-class correlation coefficient	Pearson correlation coefficient	Inter-class correlation coefficient
task completion	.775	.770	.719	.719
fluency	.834	.825	.740	.726
accuracy	.826	.821	.804	.796

3.5.3. Statistical Analysis

The data gathered from the experiment were analyzed using SPSS (version 22.0 for Windows). First, in regard to the first research question, the Multivariate Analysis of Variance with repeated measures was applied to

investigate the general effects of pre-task planning, in consideration of the difference in the planning type. It analyzed the effects that one within-subject variable (i.e., \pm planning) and one between-subject variable (i.e., types of planning: free, guided and rehearsal) had on eleven dependent variables, which were the transcript analysis measures indicating quantity, fluency, accuracy and complexity of oral performance. The same analysis was conducted with another three dependent variables, which were the scores that the raters assigned to task completion, fluency and accuracy of the spoken production.

Secondly, in order to explore the second and third research questions concerning the difference in the planning effects according to the planning type, a series of paired-sample t-tests were conducted. Each group's performances were separately tested for significant difference between unplanned and planned production, in terms of each of the ten transcript analysis measures, and in turn, in terms of each of three rating scores.

Finally, the survey data collected in the post-test session aimed to provide explanations for the effects of pre-task planning, rather than producing statistically analyzed results. In order to see the general tendency and to find any difference between the groups, however, the participants' responses to each survey question were coded into 6-level scales from 0 to 5, which were averaged by groups and compared through the one-way ANOVA.

CHAPTER 4.

RESULTS AND DISCUSSION

This chapter reports on the results of the statistical analyses of data and provides the discussion in light of these results. Section 4.1 presents the results and discussion on the general effects of pre-task planning, based on the data gained from the transcript analysis and the rating. Section 4.2 deals with the difference in the planning effect according to the planning type. The results of the transcript analysis, the rating and the post-task survey are presented to compare the three planning groups and followed by the discussion of the effect of guided planning compared to free planning and the discussion of the effect of rehearsal compared to strategic planning.

4.1. General Effects of Pre-task Planning

4.1.1. Results of Transcript Analysis

The results of the MANOVA on the ten transcript analysis measures are presented in Table 4.1. The F-value of Wilk's Lambda test was documented, since this is the most commonly- reported one. According to Table 4.1, there was a significant main effect by planning, $F(10, 15)=19.770$, $p<.001$, but the effect of planning and group interaction was not significant $F(15,$

30)=1.375, $p=.210$, meaning that pre-task planning generally affected the L2 performance regardless of the types of planning. Group, the between-subject variable, also did not produce a significant effect, $F(15, 30)=1.614$, $p=.115$, which confirmed that the three groups basically did not differ in their oral proficiency in terms of the ten measures of the transcript analysis.

Table 4.1.
Results of Multivariate Tests for Transcript Analysis Measures

source	Value	F	Hypothesis df	Error df	Sig.	partial η^2
planning	.071	19.770	10.000	15.000	.000*	.929
planning*group	.272	1.375	20.000	30.000	.210	.478
group	.232	1.614	20.000	30.000	.115	.518

Wilk's Lambda test is adopted, * $p<.05$

Descriptive statistics on all the measures are given in Table 4.2, and the results of univariate F-test in the MANOVA on the ten measures are summarized as for quantity in Table 4.3, fluency in Table 4.4, accuracy in Table 4.5, and complexity in Table 4.6. In regard to quantity, pruned-out word counts of the planned narratives ($M=140$) were greater than those of the unplanned narratives ($M=90.19$) and a significant effect by planning was found ($p<.001$). In other words, the participants produced significantly longer narratives under the planned condition. It should be noted, however, that the interaction effects by planning and group on the number of words produced in the task performance were approaching significance ($p=.056$), suggesting the probability that there is some difference between the three types of planning.

Table 4.2.
Descriptive Statistics for Transcript Analysis Measures

Measures	Task 1 (unplanned)				Task 2 (planned)			
	Mean	SD	Min	Max	Mean	SD	Min	Max
[Q] pruned word count	90.19	29.64	38	147	140.07	42.55	73	235
[F] speech rate	99.96	26.93	54.67	178.7	128.51	26.29	84.6	186.79
[F] total pause length	48.06	10.99	26.09	66.41	37.07	9.40	20.34	55.33
[F] number of repairs	11.04	5.94	3.06	27.59	6.34	3.97	0.77	16.03
[A] EFC ratio	0.55	0.17	0.09	0.83	0.52	0.15	0.17	0.83
[A] number of errors	8.89	3.81	2.67	17.02	10.06	4.06	3.85	23.73
[A] CVF ratio	81.08	13.22	50	100	82.32	13.55	43.33	100
[C] AS-unit length	7.86	1.08	6.4	10.42	8.80	1.62	6.08	13.5
[C] subordination	1.26	0.13	1	1.54	1.49	0.24	1	1.92
[C] LFW ratio	0.06	0.03	0	0.11	0.08	0.02	0.04	0.13

[Q] quantity of speech, [F] fluency, [A] accuracy, [C] complexity
EFC = error-free clauses CVF = correct verb forms, LFW = low frequency words

Table 4.3.
Results of Univariate Tests for the Quantity Measure

source	pruned word count		
	F-value	sig.	partial η^2
planning	97.866	.000*	.803
planning*group	3.264	.056	.214
group	1.403	.265	.105

*p<.05

Table 4.4.
Results of Univariate Tests for Fluency Measures

source	raw speech rate			total pause length			number of repairs		
	F-value	sig.	partial η^2	F-value	sig.	partial η^2	F-value	sig.	partial η^2
planning	85.771	.000*	.781	74.493	.000*	.756	17.893	.000*	.427
planning*group	2.128	.141	.151	.423	.660	.034	1.434	.258	.107
group	2.516	.102	.173	1.849	.179	.133	1.906	.171	.137

*p<.05

Table 4.5.
Results of Univariate Tests for Accuracy Measures

source	EFC ratio			number of errors			CVF ratio		
	F-value	sig.	partial η^2	F-value	sig.	partial η^2	F-value	sig.	partial η^2
planning	.597	.447	.024	1.789	.194	.069	.188	.669	.008
planning*group	.092	.912	.008	.845	.442	.066	.045	.956	.004
group	1.415	.262	.106	1.178	.325	.089	.236	.792	.019

EFC = error-free clauses, CVF = correct verb forms, *p<.05

Table 4.6.
Results of Univariate Tests for Complexity Measures

source	AS-unit length			subordination			LFW ratio		
	F-value	sig.	partial η^2	F-value	sig.	partial η^2	F-value	sig.	partial η^2
planning	10.960	.003*	.314	25.745	.000*	.518	7.612	.011*	.241
planning*group	3.587	.043*	.230	1.976	.160	.141	.815	.455	.064
group	.412	.667	.033	.580	.568	.046	1.861	.177	.134

LFW = low frequency word, *p<.05

On average, planned performances showed higher fluency than unplanned performances, with higher speech rate, less pausing time, and smaller number of repairs (see Table 4.2). Table 4.4 presents that planning had a significant effect on all of the three measures of fluency: raw speech rate ($p < .001$), total pause length ($p < .001$), and the number of repairs ($p < .001$). However, there were no interaction effects or between-group differences. These results suggest that L2 learners performed the narrative task with significantly higher fluency under the planned condition, regardless of the planning methods.

When it comes to accuracy, however, inconsistent results were found. When comparing the means of planned and unplanned narratives, the learners demonstrated lower accuracy under the planned condition in terms of the two overall accuracy measures (i.e., less error-free clauses ratios and the greater number of errors), while the mean of the correct verb forms ratios was slightly higher when they planned (see Table 4.2). Any of these differences were significant, however, according to the results of univariate tests for error-free clauses ratio ($p = .447$), the number of errors ($p = .194$), and correct verb forms ratio ($p = .669$), shown in Table 4.5. It can be inferred that the effects of pre-task planning on accuracy are not clear, with considerable individual differences. For some learners in this study, pre-task planning might have had a negative influence on the accuracy of their oral productions.

As for another aspect concerning linguistic codes, complexity, pre-task planning was found to have significantly positive effects. According to the means presented in Table 4.2, the planned narratives contained longer

AS-units on average, more subordinated clauses, and a higher proportion of low frequency words than unplanned narratives. Table 4.6 shows that the effects of planning on complexity were statistically significant, in terms of all three measures: AS-unit length ($p=.003$), subordination ($p<.001$), and low-frequency words ratio ($p=.011$). While most of the transcript analysis measures analyzed by the MANOVA were not significantly affected by the interaction of planning and group, one of the complexity measures was found to be significantly impacted by this interaction: AS-unit length ($p=.043$). This analysis means that different methods of planning had a different effect on the mean length of AS unit of the learners' oral production.

4.1.2. Results of Rating Scores

The results of the MANOVA (with the F-value from Wilk's Lambda test) are shown in Table 4.7. Consistent with the results of the transcript analysis, there was a significant main effect by planning, $F(3, 22)=19.110$, $p<.001$, while interaction effect of planning and group ($F(6, 44)=.599$, $p=.729$) reached significance. This suggests that the effect of pre-task planning on the L2 narratives in this study, regardless of the planning method, was obvious in the perception of the assessors as well. It was also confirmed that there were no significant differences in the oral proficiency of three experiment groups as the raters evaluated, according to the insignificance of the effect of group ($F(6, 44)=.818$, $p=.562$).

Table 4.7.
Results of Multivariate Tests for Rating Scores

source	Value	F	Hypothesis df	Error df	Sig.	partial η^2
planning	.277	19.110	3.000	22.000	.000*	.723
planning*group	.855	.599	6.000	44.000	.729	.076
group	.809	.818	6.000	44.000	.562	.100

Wilk's Lambda test is adopted, * $p < .05$

Descriptive statistics on the rating scores are presented in Table 4.8. On average, the planned narratives gained higher scores than unplanned narratives in each criterion. According to the results of univariate tests in the MANOVA for each rating score provided in Table 4.9, it was found that pre-task planning had a significant effect on each of the three criteria: task completion ($p < .001$), fluency ($p < .001$), and accuracy ($p = .002$).

Table 4.8.
Descriptive Statistics for Rating Scores

criteria	Task 1 (unplanned)				Task 2 (planned)			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Task Completion	3.26	0.75	2	4.5	3.94	0.59	3	5
Fluency	2.85	0.82	1.5	4.5	3.57	0.78	2	5
Accuracy	2.80	0.81	1.5	4	3.39	0.75	2	4.5

Table 4.9.
Results of Univariate Tests for Rating Scores

source	task completion			fluency			accuracy		
	F-value	sig.	partial η^2	F-value	sig.	partial η^2	F-value	sig.	partial η^2
planning	33.476	.000*	.582	38.718	.000*	.617	11.502	.002*	.324
planning*group	.033	.968	.003	1.607	.221	.118	.148	.863	.012
group	2.026	.154	.144	1.221	.313	.092	2.011	.156	.144

*p<.05

In sum, the raters evaluated that the participants described the story based on the pictures with richer details, spoke more fluently and produced less errors when the participants were given an opportunity for planning before performing the task, to significant degrees. The positive effects on the scores of task completion agree with the result of the transcript analysis, in which the participants produced significantly longer narratives under the planned condition, suggesting that pre-task planning helped the participants think and express more details. The result on the fluency score is also consistent with that of the transcript analysis, in that both results supported the positive effects of pre-task planning. When it comes to accuracy, in contrast, the results found in the rating conflicts with a somewhat negative (though not significant) effect in the two overall accuracy measures. This inconsistency needs to be further discussed.

4.1.3. Discussion

Based on the results of the transcript analysis and the rating, the first research question of this study can be answered as follows: pre-task planning had facilitative effects on the quantity, fluency and complexity of the Korean EFL learners oral production in the narrative task, but the planning effect on accuracy was not conclusive. This result is consistent with the general finding in literature, in that the effect of pre-task planning is clear on the aspects related to the content (or meaning), while the effect is limited when it comes to the aspects related to the language (or form). Most previous studies reported that under the planned condition, fluency was clearly enhanced, but of the two form-related aspects, either complexity or accuracy was facilitated (Ahmadian & Tavakoli, 2010; Bygate, 2001; Foster & Skehan, 1996, 1999; Lee et al, 2007; Nielson, 2013; Piao, 2011; Skehan & Foster, 1997).

The most widely adopted explanation for the limited effect in the form-related aspects is the trade-off hypothesis, which was proposed by Skehan (1996). Due to limited processing capacity, learners need to prioritize while planning and performing the task and this leads them to focus on one aspect of performance at the expense of others. Since focus on meaning is naturally encouraged by the communicative goal of the task, complexity and accuracy have to compete for the limited processing resources allocated to form and the ensuing trade-off appears to affect complexity and accuracy. If learners choose to prioritize complexity, taking risks of using the forms of which they have less control, accuracy will suffer. On the contrary, if they

focus on controlling their resources to ensure accuracy, the chances are that they will avoid challenging structures that might provoke errors.

It appears that the participants in this study generally chose complexity over accuracy in the allocation of attentional resources procured by pre-task planning. This choice is probably related to the requirement and condition of the task. Complexity seems to be prioritized in the less structured and more demanding tasks, which induce the learners to generate more complex ideas and thus channel the effect of planning toward how to express the complex ideas at the expense of accuracy (Skehan & Foster, 1997; Lee et al., 2007). In the current study, the task instruction required the participants to try to elaborate the story rather than telling the gist, encouraging the inclusion of the descriptions of place, weather, emotions, etc. and the use of their imagination to make up for what is not overtly shown in the pictures. In addition, there was no time limit for the task completion, which allowed the learners to speak as much as possible. The participants in this study tried to fulfill this requirement for complexity, as confirmed by the significantly greater task completion score and word count of the planned narratives, which might lead to the focus on complexity rather than accuracy.

The null result for accuracy in this study, however, is not conclusive, since the perceived accuracy reflected in the assessors' ratings disagreed with the findings from the transcript analysis. The planning effect on accuracy as shown in the measures that analyzed the transcripts of the production was insignificant, with a tendency of being detrimental. In contrast, accuracy as evaluated by the raters was significantly enhanced by pre-task planning.

It is reasonable to attribute this disagreement to the differences of the two assessing methods. The fundamental difference is that in the transcript analysis, the measures indicating accuracy were calculated from the pruned transcripts of the narratives, whereas the raters assessed the accuracy of the production while listening to the whole recordings of raw narratives. That is, the identification of errors for the transcript analysis excluded repairs, which were abandoned because the speaker judged them as mis-produced, or erroneous, while the raters' assessment included them. Considering the result on the repair fluency showed that the planned narratives contained a much smaller number of repairs ($F(1,24)=17.893, p<.001$)), it is natural that the raters clearly perceived the difference between the accuracy score given to the unplanned output with more repairs and the accuracy score for the planned output that had less repairs, although the difference was not distinctive in the transcripts where repairs were removed.

In addition, the two assessing methods are different in that one is an analytic assessment depending on the countable measures while the other is a holistic method based on the overall impression. The holistic evaluation of aural data may show greater generosity toward minor errors. The analytic counting, on the contrary, may exaggerate the number of errors, because certain words associated with multiple types of error were counted repeatedly. For example, if a verb form was incorrect in terms of subject-verb agreement as well as the choice of the voice, it was counted as two errors.

The higher accuracy scores of the planned performances provide a support that pre-task planning has a facilitative effect on both of the form-related aspects, complexity and accuracy, though the effect appears to

be limited to the perceived accuracy and needs to be interpreted with caution. Further investigation on the measurement of accuracy in the oral productions is needed for the clearer understanding of the inconsistency.

Another notable finding in the results of MANOVAs was the interaction effect found in some of the transcript measures. In this study the repeated variable had only two levels and one of the two posed the same condition (i.e., unplanned condition) for all the groups. Therefore the difference in effect due to the type of planning is reflected in the interaction effect between planning and group. A significant interaction effect was found on AS-unit length ($p=.043$), and an interaction effect of marginal significance was found in the pruned word count ($p=.056$). This suggests that although pre-task planning generally increased the quantity and complexity of the L2 productions, the effects are likely to be influenced by the method of planning. This issue is to be revisited in the following section with regard to the research question 2 and 3.

4.2. Comparison of Different Types of Planning

4.2.1. Results of Transcript Analysis

The results of the MANOVAs presented in the previous section suggested that there was no significant difference in the planning effect according to the types of planning, in terms of the transcript analysis measures, except for one indicator of complexity. The findings from the paired-sample t-tests

of each group's transcript analysis measures, however, proposed that there were some different features in the effect between the planning types, though they are not statistically significant.

The means and the results of paired-sample t-test for the quantities of the planned and unplanned narratives that each group produced are presented in Table 4.10. The pruned word counts were significantly increased under the planned condition, in all of the three groups: free planning ($p < .001$), guided planning ($p = .002$) and rehearsal ($p = .001$). Considering the mean differences and the effect sizes (Cohen's d), free planning appears to have a greater impact on the quantity than the other planning methods, and this difference seems to be related to the interaction effect of marginal significance ($p = .56$) noted in the previous section. Presumably free planning had a much greater tendency of leading the participants to plan for content and it can be inferred that compared to free planning, guided planning and rehearsal might have induced less planning on content and more planning on language.

Table 4.10.
Results of Paired T-test for Pruned Word Count (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	95.111	163.222	-68.111	-8.105	.000*	2.702
	SD	30.387	53.230	25.211			
guided planning	M	82.667	123.556	-40.889	-4.388	.002*	1.463
	SD	34.018	30.192	9.318			
rehearsal	M	92.778	133.444	-40.667	-4.811	.001*	1.604
	SD	25.989	34.341	25.357			

$n=9$ for each group, * $p < .05$

Table 4.12 through Table 4.14 display the three groups' means and t-test results for the fluency measures of the planned and unplanned narratives. The statistics regarding speech rate in Table 4.12 shows that the three types of planning commonly had a significant effect in helping the learners to speak faster. The mean difference was somewhat larger in the rehearsal group than in the other groups, probably because the method involved the learners in repeated practices, which might have enhanced their speech rates. According to Table 4.13, as for the planning effect on the total pause length, there is no notable difference between the three groups. All of them showed a significant decrease of the pausing time under the planned condition, with the similar level of effect sizes and mean differences.

The findings on the number of repairs (see Table 4.14) propose a notable difference between the types of planning, on the reduction of repairs by planning. The planned narratives in the free planning and rehearsal groups contained significantly smaller numbers of repairs than the unplanned narratives ($p=.035$ and $p=.008$ respectively). In the guided planning group, however, although the number of repairs reduced under the planned condition, the differences between planned and unplanned narratives ($M=2.244$) were much smaller than those of free planning ($M=5.043$) or those of rehearsal ($M=6.818$), and moreover, the results of the t-test was not significant ($p=.260$).

The means and t-test results for the accuracy of each group's planned and unplanned narratives are provided in Table 4.14 (error-free clauses ratio), Table 4.15 (numbers of errors), and Table 4.16 (correct verb forms ratio).

Table 4.11.**Results of Paired T-test for Raw Speech Rate (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	100.541	124.377	-23.836	-5.026	.001*	1.675
	SD	16.330	18.860	14.227			
guided planning	M	90.442	114.703	-24.262	-8.590	.000*	2.863
	SD	25.366	20.286	8.473			
rehearsal	M	108.907	146.438	-37.531	-5.060	.001*	1.687
	SD	35.421	29.723	22.252			

n=9 for each group, * $p < .05$

Table 4.12.**Results of Paired T-test for Total Pause Length (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	47.910	37.58	10.333	4.427	.002*	1.476
	SD	8.151	9.250	7.002			
guided planning	M	51.739	41.724	10.015	5.117	.001*	1.706
	SD	10.629	8.072	5.871			
rehearsal	M	44.539	31.895	12.644	5.475	.001*	1.825
	SD	13.566	9.037	6.928			

n=9 for each group, * $p < .05$

Table 4.13.**Results of Paired T-test for Number of Repairs (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	13.286	8.242	5.043	2.534	.035*	.845
	SD	8.177	5.272	5.971			
guided planning	M	9.133	6.889	2.244	1.213	.260	1.213
	SD	4.264	3.045	1.850			
rehearsal	M	10.712	3.894	6.818	3.528	.008*	1.176
	SD	4.435	1.718	5.797			

n=9 for each group, * $p < .05$

In all three groups, invariably, the planned narratives contained less error-free clauses and more errors than the unplanned narratives, though the differences were insignificant (see Table 4.14 & Table 4.15). In other words, regarding overall accuracy, the planned narratives were somewhat less accurate than the unplanned narratives, regardless of the planning type. As for specific accuracy, however, the planned narratives in each group presented increased ratios of correctly formed verbs, compared to the unplanned narratives, though the increases in any group were found significant (see Table 4.16).

It was predicted that guided planning and rehearsal would have greater effects on accuracy than free planning, as they would help to shift the learners' attentional focus from content to language. The comparison of mean differences of the three groups shows the tendencies contrary to this prediction. The decrease of error-free clauses ($M=.057$) and increase of errors ($M=2.762$) in the narratives of the guided planning group under the planned condition were greater than those of the free planning group ($M=.018$, $M=.209$ respectively), which means that in the guided planning, on average, the negative effect was bigger. The positive effect of planning found in the increase of correct verb forms was by far smaller in the guided planning ($M=.437$) than in the free planning ($M=2.434$).

The rehearsal group also showed slightly larger decrease of error-free clauses ($M=.021$) and larger increase of errors ($M=.532$) than the free planning group, suggesting that rehearsal had a greater negative effect on accuracy. The increase of correct verb forms in the planned narratives of the rehearsal group ($M=.843$) was also smaller than the free planning group, indicating smaller facilitative effect of rehearsal on accuracy.

Table 4.14.**Results of Paired T-test for Error-free Clauses Ratio (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free	M	.513	.495	.018	.280	.787	.094
planning	SD	.195	.106	.192			
guided	M	.548	.491	.057	.837	.427	.279
planning	SD	.173	.188	.204			
rehearsal	M	.602	.581	.021	.257	.804	.086
	SD	.144	.130	.243			

n=9 for each group, * $p < .05$

Table 4.15.**Results of Paired T-test for Number of Errors (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free	M	9.959	10.167	-.209	-.253	.806	.085
planning	SD	2.993	2.806	2.473			
guided	M	8.846	11.608	-2.762	-1.526	.165	.509
planning	SD	4.767	5.813	5.428			
rehearsal	M	7.876	8.408	-.532	-.312	.763	.104
	SD	3.619	2.453	5.114			

n=9 for each group, * $p < .05$

Table 4.16.**Results of Paired T-test for Correct Verb Forms Ratio (by Group)**

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free	M	79.272	81.706	-2.434	-.572	.583	.191
planning	SD	16.126	14.856	12.754			
guided	M	80.521	80.958	-.437	-.098	.924	.033
planning	SD	10.800	17.037	13.393			
rehearsal	M	83.456	84.299	-.843	-.142	.891	.047
	SD	13.454	8.902	17.863			

n=9 for each group, * $p < .05$

When it comes to complexity, the effects displayed by the three types of planning seem to differ. Table 4.17 through Table 4.19 present the means and t-test results of the planned and unplanned narratives produced by each group, in terms of AS-unit length (Table 4.17), subordination (Table 4.18) and low-frequency words ratio (Table 4.19). According to Table 4.17 and Table 4.18, the effect of free planning on syntactic complexity was positive, but limited. On average, both the AS-unit length and subordinations of the free planners' narratives were increased under the planned condition, but statistical significance was achieved only in terms of subordination ($p=.042$). The increase of the AS-unit length in the planned outputs of this group was found insignificant ($p=.120$) and produced a medium effect size ($d=.581$).

Guided planning did not benefit syntactic complexity, contrary to the prediction that the provision of detailed guidance would lead the learners to use the planning opportunity to work on form-related aspects. The differences between planned and unplanned narratives of the guided planning group did not reach statistical significance, as for both AS-unit length ($p=.875$) and subordination ($p=.081$). Moreover, while the planned outputs of the guided planners contained more subordination ($M=1.389$) than the unplanned outputs ($M=1.274$), they produced on average slightly shorter AS-units when participants planned ($M=8.042$) than when not planned ($M=8.105$), displaying lowered syntactic complexity under the planned condition.

The planning type that had the most obvious effect on syntactic complexity is rehearsal. Table 4.17 and Table 4.18 show that the planned narratives of the rehearsal group consisted of significantly longer AS-units ($p=.003$) and more complex sentences ($p=.002$) than the unplanned narratives. In addition,

when compared to the free planning group, which was also found to positively affect syntactic complexity, the increase of AS-unit length (M=1.777) and subordination (M=.339) in the planned outputs of the rehearsal group were greater than those of the free planning group (AS-unit length, M=1.105; subordination, M=.252). The effect sizes for the effect of rehearsal on AS-unit length (d=1.431) and subordination (d=1.562) were far larger than those for the effect of free planning (AS-unit length, d=.581; subordination, d=.808).

Table 4.17.
Results of Paired T-test for AS-unit Length (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	8.005	9.110	-1.105	-1.742	.120	.581
	SD	1.368	2.168	1.902			
guided planning	M	8.105	8.042	.063	.162	.875	.054
	SD	.9802	.8128	1.167			
rehearsal	M	7.476	9.253	-1.777	-4.291	.003*	1.431
	SD	.8199	1.485	1.242			

n=9 for each group, * $p < .05$

Table 4.18.
Results of Paired T-test for Subordination (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	1.273	1.525	-.252	-2.424	.042*	.808
	SD	.171	.301	.312			
guided planning	M	1.274	1.389	-.115	-1.999	.081	.669
	SD	.118	.155	.172			
rehearsal	M	1.225	1.563	-.339	-4.684	.002*	1.562
	SD	.114	.223	.217			

n=9 for each group, * $p < .05$

The contrast between guided planning and rehearsal in the effect on AS-unit length is noteworthy. It was predicted that both methods would lead the learners to more attend to form, compared to free planning, but the results show that guided planning did not enhance, rather reduced on average, the syntactic complexity indicated by AS-unit length, whereas the positive effect of rehearsal on this measure was significant. This difference was also presented by the significant interaction effect ($p=.043$) in the MANOVA results (see Table 4.6), which was noted in section 4.1.

Whereas syntactic complexity was positively influenced by free planning and rehearsal, it was guided planning that benefited lexical complexity. Table 4.19 presents that although in all three groups, the planned narratives contained higher proportions of low-frequency words than the unplanned narratives, the differences were not significant for the free planning group ($p=.095$) and the rehearsal group. ($p=.551$). Statistical significance was only found in the guided planning group ($p=.026$), with a large effect size ($d=.917$), suggesting that the guided planners' attention to form might have focused on lexical aspects rather than syntactic aspects.

Table 4.19.
Results of Paired T-test for Low-frequency Words Ratio (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	.056	.085	-.029	-1.892	.095	.630
	SD	.030	.026	.046			
guided planning	M	.066	.088	-.022	-2.738	.026*	.917
	SD	.024	.013	.024			
rehearsal	M	.058	.066	-.008	-.622	.551	.222
	SD	.033	.017	.036			

n=9 for each group, * $p<.05$

4.2.2. Results of Rating Scores

The results of the paired-sample t-tests which were conducted to compare the scores of the planned narratives with those of the unplanned narratives are presented in Table 4.20 through Table 4.21, with the descriptive statistics. Table 4.20 summarizes the three groups' results regarding the task completion scores. The results of the three different types of planning did not show any notable difference. The planned narratives gained significantly higher task completion scores than the unplanned narratives, in the free planning group ($p=.016$), as well as in the guided planning group ($p=.021$) and the rehearsal group ($p=.001$). This result does not match the finding on the quantity measure that free planning involved the quantity increase relatively greater than guided planning and rehearsal. It can be inferred that the difference was not distinctive enough for the raters to perceive, or there were other factors that influenced the raters' evaluation on the task completion, such as the organization of the story or the overall effectiveness of communication.

Table 4.20.
Results of Paired T-test for Task Completion Score (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	3.333	3.944	-.611	-3.051	.016*	1.017
	SD	.791	.583	.601			
guided planning	M	2.944	3.667	-.722	-2.871	.021*	0.956
	SD	.882	.661	.755			
rehearsal	M	3.500	4.222	-.722	-4.914	.001*	1.637
	SD	.500	.441	.441			

n=9 for each group, * $p<.05$

The three groups' t-test results on fluency scores are presented in Table 4.21. No difference according to the planning methods was found, which supports the results of the transcript analysis on the fluency measures, reported in section 4.2.1. The fluency scores assigned to the planned performances were significantly higher than those given to the unplanned performances, invariable across the free planning group ($p=.017$, $d=1.000$), the guided planning group ($p=.022$, $d=.943$), and the rehearsal group ($p=.001$, $d=1.789$), all with a large effect size. The difference in regard to the number of repairs found in the transcript analysis does not seem to have influenced the raters' assessment on fluency. One minor, but notable difference in the effect on fluency scores between the three groups is that under the planned condition, the rehearsal group achieved score gains ($M=1.000$) which were greater than the free planners ($M=.500$) and the guided planners ($M=.667$).

When it comes to the accuracy score, in contrast to the task completion score and fluency score, a distinct difference in the planning effect was found between rehearsal and the other two types of planning. According to Table 4.22, the planned narratives of the free planners and the guided planners were given higher accuracy scores on average than the unplanned narratives, but the score gains reached significance neither in the free planning group ($p=.108$) nor in the guided planning group ($p=.128$). Rehearsal, however, had a significant positive effect on the accuracy score ($p=.044$) with a considerable effect size ($d=.798$), and score gains of the rehearsal group under the planned condition were slightly larger ($M=.722$) than those of the other groups ($M=.500$, $M=.556$). This result disagrees with

the findings of the transcript analysis that rehearsal had an insignificant mixed influence on the accuracy measures and did not show any superiority in enhancing accuracy, compared to free planning. In hindsight, the discrepancy in the general effect of pre-task planning on accuracy between the transcript analysis and the rating, discussed in section 4.1.3, seems to primarily originate from the inconsistent results in the rehearsal group, which merits further discussion.

Table 4.21.
Results of Paired T-test for Fluency Score (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	2.944	3.444	-.500	-3.000	.017*	1.000
	SD	.768	.682	.500			
guided planning	M	2.611	3.278	-.667	-2.828	.022*	.943
	SD	.894	.939	.707			
rehearsal	M	3.000	4.000	-1.000	-5.367	.001*	1.789
	SD	.829	.559	.559			

n=9 for each group, * $p < .05$

Table 4.22.
Results of Paired T-test for Accuracy Score (by Group)

		unplanned	planned	paired differences	T-value	sig.	Cohen's d
free planning	M	2.778	3.278	-.500	-1.809	.108	.603
	SD	.667	.712	.829			
guided planning	M	2.556	3.111	-.556	-1.696	.128	.566
	SD	.882	.821	.982			
rehearsal	M	3.056	3.778	-.722	-2.393	.044*	.798
	SD	.882	.618	.905			

n=9 for each group, * $p < .05$

4.2.3. Results of Post-task Survey

The participants' responses to the questionnaire were coded into 6-point scales from 0 for "strongly disagree" to 5 for "strongly agree". The scores and the results of the ANOVA of the three groups are summarized in Table 4.23. Although there was no statistically significant difference between the three groups in their responses to any of the eleven items, the comparison of the means presents a few slight differences.

The participants' attitudes toward the benefit of pre-task planning, which were reflected in their responses to Q1 through Q3, were generally positive. On average, the participants in the three groups agreed that speaking was easier and they felt more confident when they planned the task, with the highest mean score in the rehearsal group (Q1, $M=4.44$, Q2 $M=4.33$). However, as to whether extra planning time would improve performance to a greater degree (Q3), the mean scores of the free planners ($M=2.11$) and guided planners ($M=2.44$) indicate somewhat negative responses, while that of the rehearsal group ($M=3.44$) was more positive. The ANOVA result shows that the difference approached significance ($p=.053$), which was found to come from the difference between the free planning group and the rehearsal group ($p=.052$) by a post-hoc turkey test.

The follow-up interview provided an account for the difference in the answers to Q3. For the participants in the free planning and guided planning, 10 minutes was sufficient to prepare content and vocabulary and when it comes to grammar, it would not improve much unless they were given a much longer planning time enough to write the entire script, revise it

Table 4.23. Results of Post-task Questionnaire

	Mean (SD)			F-value	sig.	partial η^2
	free planning	guided planning	rehearsal			
Q1. Speaking was easier when I planned the task.	3.78 (.833)	4.22 (1.093)	4.44 (.726)	1.287	.294	.097
Q2. I felt more confident when I planned the task.	3.78 (1.093)	3.33 (1.414)	4.33 (.707)	1.835	.181	.133
Q3. I could have spoken better if the planning time had been longer.	2.11 (1.054)	2.44 (1.509)	3.44 (.726)	3.319	.053	.217
Q4. I prepared the content of each picture while planning.	3.67 (.707)	3.67 (.500)	3.78 (.441)	.118	.890	.010
Q5. I considered the flow of the whole story while planning.	3.67 (.707)	3.78 (.441)	3.76 (.707)	.093	.911	.008
Q6. I prepared vocabulary (word/phrase) while planning.	3.44 (.726)	3.22 (1.093)	3.89 (.601)	1.493	.245	.111
Q7. I considered grammar (form/structure) while planning	2.22 (.667)	1.89 (.928)	2.22 (.833)	.500	.613	.040
Q8. I attended to the content of each picture while speaking	3.67 (.500)	3.67 (1.000)	3.67 (1.000)	.000	1.000	.000
Q9. I attended to the flow of the whole story while speaking	3.67 (.707)	3.56 (.882)	3.67 (.866)	.055	.947	.005
Q10. I attended to the choice of vocabulary while speaking.	2.89 (.333)	3.33 (.866)	3.44 (.726)	1.680	.208	.123
Q11. I attended to the use of grammar while speaking.	2.00 (.866)	2.11 (.601)	2.44 (1.130)	.605	.554	.048

5: strongly agree, 4: agree, 3: somewhat agree, 2: somewhat disagree, 1: disagree, 0: strongly disagree

and practice it several times, because there is a limitation in the ability to remember what was planned. On the other hand, the participants in the rehearsal group said that 10 minutes was enough to plan the task as a whole, but if they were allowed extra time for another rehearsal, they would refine their speech in respect of content, as well as word choice and grammar.

The next set of questions inquired into the participants' priority during the planning and the results did not vary between the groups. Generally the participants seemed to plan with greater focus on the content (Q4) and flow (Q5) of the story as well as vocabulary (Q6), while they did not pay much attention to grammar (Q7). To the question whether they considered grammar while planning, in particular, the guided planning group showed a lower mean score (M=1.89) than the free planning group (M=2.22) and the rehearsal group. (M=2.22).

Similarly, Q8 through Q11 asked the participants to what aspect they paid attention while performing the speaking task. The three groups agreed that they attended more to the content (Q8) and flow (Q9) of the story, as well as vocabulary (Q10), and less to grammar (Q11). The free planning group, however, showed less concern for vocabulary (M=2.89) than the guided planning group (M=3.33) and the rehearsal group (M=3.44), and their attention to grammar while speaking (M=1.89) was similar to the guided planning group (M=2.11) but lower than the rehearsal group (M=2.44).

In the subsequent interview, the participants were asked why they did not (or could not) pay attention to grammar while planning and while speaking. In the responses, three reasons were most frequently mentioned. The first

reason was associated with the participants' attitudes toward accuracy. Many answered that it did not matter to make grammatical errors as long as the meaning was conveyed. The second reason related to their awareness of the limitation in time and memory capacity. According to responses, with the limited time and memory capacity, they had to prioritize some aspects over others, and they thought the lexical choice was more important in communication than grammar. Lastly a few participants attributed the lack of focus on grammar to their weak grammatical competence. They said that it would be of no use to spend their time and attentional resources on considering grammar, because their knowledge of grammar is limited.

4.2.4. Discussion

4.2.4.1. Free planning vs. Guided planning

The second research question of the present study was posed to examine whether there is any difference in the effects of strategic planning with detailed guidance and unguided strategic planning. The hypothesis was that when the learners were guided to balance between content and language while planning, more attention would be drawn to form-related aspects, and thus the complexity and accuracy of their oral production could be enhanced. In particular, in an attempt to induce the participant to pay more attention to accuracy, the guided planning in this study required them to go over their planning notes focusing on the correct forms of the verbs.

Contrary to the prediction, the results showed that the detailed guidance did not expand the effect of planning on accuracy. Moreover, it was found that the presence of guidance mitigated the planning effect on syntactic complexity. This result disagrees with the findings of previous studies in which both of complexity and accuracy (Mochizuki & Ortega, 2008; Sangarun, 2005) or at least either one of them (Foster & Skehan, 1996, 1999) benefited from guided planning. However, guided planning displayed superiority over free planning in the effect on lexical complexity, which was not investigated in the previous studies.

The lack of difference in the effect on accuracy between free planning and guided planning can be attributed partly to the inadequate manipulation of planning condition. It was observed during the study that most of the free planners, even though not provided with guidance, planned in a similar way to the guided planners. The free planners prepared both content and language, making notes of what they would say and reviewing their notes at times, which is not much different from what the guiding worksheet instructed the participants to do.

What actually differentiated guided planning from free planning was that it explicitly required the learners to take time to check the accuracy of the verb forms. However, it was found to be insufficient to induce enough attention on grammar and enhance accuracy. The result of the post-task survey in the present study presented that the guided planners considered grammar while planning to a lesser extent than the free planners. It seems that guided planning cannot improve accuracy of the subsequent task, unless accompanied by more direct and specific pedagogical interventions. In

review of the previous studies, the planning condition which resulted in the positive effect on accuracy involved the guidance which included specific linguistic materials, such as a list of grammatical structures needed for the task (Foster & Skehan, 1999; Sangarun, 2005) or example sentences of the target form (Mochizuki & Ortega, 2008).

The finding that the guided planning in the present study did not positively impact syntactic complexity also needs to be discussed. It is not only inconsistent to the findings of the previous studies, but it also does not match with the result of this study on the general effect of pre-task planning. The most reasonable explanation might be that the guided planners gave priority to the lexical aspect over the syntactic aspect, as evidenced by the contrasting result of free planning and guided planning in regard to the two aspects of complexity. Free planning enhanced syntactic complexity, but did not impact on lexical complexity. In contrast guided planning had no significant effect on syntactic complexity, but positively affected lexical complexity.

Speaking involves demanding cognitive processing and since the learners' attentional capacity is limited, they need to prioritize one aspect over the other in the allocation of their processing resources. In the literature this trade-off was considered to lie between meaning (fluency) and form (accuracy and complexity), or between complexity and accuracy, when the capacity is expanded as pre-task planning frees up part of the load (Skehan, 1996, Ellis 2005, 2009). The result of the present study seems to show that the trade-off can also be between syntactic complexity and lexical complexity. With the limited attentional resources allowed for complexity,

the free planners in this study prioritize syntactic complexity while the guided planners chose lexical complexity.

The attentional allocation during the task performance is likely to be influenced by what the learners focus on during the planning phase, since through planning the relevant knowledge can be activated and the awareness of the aspect can be raised (Ortega, 1999). In this view, the priority that the guided planners gave to lexical complexity seems to be induced by the guiding worksheet. The instructions required the learners to write the key phrases which are needed to describe each picture. The intention was to prevent the participants from spending too much time writing the whole script or describing only one or two pictures, but in effect, the instruction might have led them to focus on lexical preparation and to rely on searching for more sophisticated key words or collocational chunks, with the assistance of the dictionary. In comparison, the free planners wrote whole sentences or made notes of a few words, as they chose to, and they might have rather tried to express by the syntactic construction of the familiar words within their usual productive vocabulary. To confirm this assumption, a further investigation needs to be conducted to inspect each group's planning notes and their use of dictionary.

4.2.4.2. Strategic planning vs. Rehearsal

The third research question of the present study was posed to investigate whether there is any difference in the effects of strategic planning and planning through rehearsal. Since rehearsal involves the learners in the entire

process of speech production including formulation and articulation as well as monitoring of overt speech, it was hypothesized to have a greater effect than strategic planning in drawing the learners attention toward form-related aspects and thus positively affecting complexity and accuracy. The results of the present study confirmed the hypothesis in terms of syntactic complexity but not conclusively in regard to accuracy.

According to the results of the transcript analysis, rehearsal had a significant positive effect on syntactic complexity, supporting the findings of previous studies on the effect of task repetition (Ahmadian & Tavakoli, 2010; Bygate, 2001; Fukuta, 2015; Thai & Boers, 2015). When compared to strategic planning, rehearsal displayed greater effects, since guided planning did not affect syntactic complexity and free planning had positive effects but significance was achieved in only one of the two measures with a smaller effect size than the effect by rehearsal.

However, the enhanced attention on form did not reach accuracy. The effect of rehearsal on accuracy was insignificant, suggesting no difference from strategic planning. This result is consistent with Ahmadian and Tavakoli, (2010) and Bygate (2001), but does not accord with Fukuta (2015), Thai and Boers (2015). As for the null effect on accuracy, it can be inferred that in rehearsal syntactic complexity won the limited attentional resources available for form over accuracy.

The primary reason for the lack of attention to accuracy might be that planning through rehearsals led the learners to elaborate the content and language of the story at the same time as they repeat the story-telling. Bygate (2001) claimed that while during the first performance learners tend

to focus on meaning, in the repeated task, the previous experience aids learners to shift their attention from processing the content of the message to working on its linguistic encoding. It seemed true that the prior performance freed up the learners' attentional resources by providing the participants with a plan for content and language. It was observed during the study, however, that the freed-up attentional resources were allocated not so much to the refinement of the language as to the elaboration of the story. Most of the participants in the rehearsal group continued to add details such as the purpose of an action or the feeling of the person to the content, which involved attaching subordinate clauses to the sentences they had generated before. As a result, syntactic complexity increased as the planning proceeded, while accuracy seldom benefited from the freed-up effect.

It should not be concluded, however that the effect of rehearsal on form-related aspect was limited only to complexity. In the results of the assessment by the raters, it was found that rehearsal significantly promoted accuracy. It had been proposed earlier in this study that the discrepancy in the results on accuracy between the transcript analysis and the rating might be associated with repairs. The comparison of the t-test results of each group revealed that the inconsistency (i.e., no effect on accuracy in the transcript analysis versus a significant increase in the accuracy score in the rating) happened in the rehearsal only, in which the reduction of repairs under the planned condition was more distinctive than in the strategic planning. Among the two strategic planning groups, only the free planning group presented a significant effect on the reduction of repairs to a lesser extent than the rehearsal group. It is probable, therefore, that the rehearsal

group's accuracy improved under the planned condition, when the significant decrease in repairs was taken into account, but that the change of accuracy was not captured by the transcript analysis, which excluded repairs and also tended to count the errors more thoroughly than the listener-raters. Since the number of repairs is related to both fluency and accuracy, and it has been under-investigated by past research about planning, future research needs to take the role of repairs in assessing accuracy into consideration.

CHAPTER 5.

CONCLUSION

The final chapter concludes the present study with two sections. Section 5.1 summarizes the major discoveries achieved in this study and discusses their pedagogical implications. Section 5.2 is composed of the limitations of the study and suggestions for future research.

5.1 Summary of Findings and Pedagogical Implications

The present study adds to the existing literature on pre-task planning in two ways. First, the findings about the first research question provide additional empirical evidence from the EFL context of Korea, supporting the facilitative role of pre-task planning. Secondly, based on the investigation of the second and third research questions, this study suggests that the planning effect can be channeled onto a certain aspect of L2 oral production, through the manipulation of the way that planning is conducted.

The first research question of the present study explored the general effect of pre-task planning and it was presented that pre-task planning enhances L2 learners' oral output in the subsequent task in terms of quantity, fluency and complexity, even though its benefit hardly reaches accuracy. The enhanced output suggests that the speech production under the planned condition provides the learners with the experience that can lead to language learning.

Pre-task planning pushes learners to generate greater amounts of output, by giving them time to create and organize the content for the task. While producing more language output, the learners may have more opportunities to put their linguistic knowledge into actual use, as well as to notice possible gaps and experiment with language (Bygate & Samuda, 2005; Swain, 1998).

Pre-task planning also helps learners to integrate their linguistic knowledge into the performance more fluently. Since planning has pre-empted some of the cognitive load, the learners can have more on-line processing resources for applying procedural knowledge. They also can recall and reproduce the expressions they have formulated by accessing declarative knowledge during the planning. As a result, speaking after planning can become a more do-able and enjoyable activity for the learners, as the participants in this study reflected in the post-task survey.

The most important contribution of pre-task planning to language learning is thought to be made through its effect on complexity. By freeing up the attentional resources to be available and by allowing the learners to take time and effort in advance for retrieving and applying a wider range of their linguistic knowledge, pre-task planning leads learners to reach the languages of higher complexity which require conscious attention to utilize, and therefore hardly come to use in an unplanned performance. The learner's attempt to use the upper echelons of their interlanguage system is likely to trigger the 'restructuring of interlanguage and to promote the transformation of declarative knowledge into procedural knowledge, which are crucial for language learning (Ellis, 2009; Skehan, 1998).

In regard to the effect of pre-task planning on the complexity of L2 oral

production, the present study adds an important finding that there can be a trade-off between lexical complexity and syntactic complexity and the aspect to be prioritized differs according to the planning method. The second research question of this study investigated whether the planning with the detailed guidance had a different effect from the unguided planning. The guiding worksheet, though unintentionally, induced the learners to focus on lexical preparation and resulted in the enhanced influence on lexical complexity, at the expense of syntactic complexity. The third research question explored the effect of rehearsal as a type of planning in comparison to the effect of strategic planning. Planning through rehearsal engaged the learners in revising their output by degrees and thus showed a stronger effect on syntactic complexity but a weaker effect on lexical complexity compared to strategic planning.

These results suggest that language teachers or material developers need to design the pre-task planning process according to the pedagogical purpose of the task, rather than just providing the learners with time for planning. It does not seem appropriate, however, to simply conclude that guided planning should be used for promoting lexical development while rehearsal should be opted for enhancing syntactic complexity. In the present study, there were other elements that influenced the differentiation of the planning conditions, such as note-taking and the use of dictionaries, the role of which needs to be clarified through further research.

The enhanced complexity in the planned output, whether it relates to the lexical aspect or the syntactic aspect, has significance because it is the result of a learner-driven focus on form. Pre-task planning creates a space for the learner

to assess task demands and available linguistic resources (Ortega, 1999), and as a result, the learners themselves choose to devote attention to try the form-meaning connections, which are not completely integrated into their interlanguage, while noticing gaps and testing hypotheses.

The learner-driven focus on form, however, appears to have no immediate impact on the accuracy of planned performance. The present study found that pre-task planning did not produce a significant effect on accuracy, in accordance with many previous studies. This lack of effect can be attributed to the limited cognitive capacity, that is, the learners' attentional resources are devoted primarily to meaning-related aspects and then to complexity, leaving little capacity for the learners to attend to control over L2 forms. There is another explanation, however, that needs to be noted. When the learners lack in grammatical, target-like knowledge or have the wrong mental representations of the L2, the accuracy of their output cannot be expected to improve, even though they have more attentional resources available and were induced to attend to form (Ortega, 1999). If the aim is to enhance accuracy, therefore, it seems to be more effective to incorporate other pedagogical devices, such as a written grammar explanation to aid the planning (Mochizuki & Ortega, 2008) or a post-task (Skehan & Foster, 1997), especially for learners at a lower proficiency.

There is still a possibility that the focus on form induced by pre-task planning may benefit accuracy as well. In particular, rehearsal in this study was found to enhance accuracy as perceived by the raters, by engaging the learners in the verbal repetitions and monitoring of their L2 output. Even though it was not supported by the transcript analysis measures, which are

more thorough in identifying the errors, planning through rehearsal may assist the learners to gain greater control over form in a cumulative way.

5.2 Limitations and Suggestions for Future Research

Although the present study reports findings in favor of pre-task planning, there are several limitations that raise questions to be addressed in future studies. First, the small sample size may lead to concerns about the influence of individual differences, such as learning experience, attitude towards language learning, and most importantly L2 oral proficiency. Even though all the participants of this study, who were recruited among tenth grade students, were considered to have general proficiencies of intermediate level, there might be considerable individual differences between some high intermediate learners and low intermediate learners, especially regarding their oral proficiency. Therefore, additional research with a larger sample size is recommended and learner variables should be considered in future studies, since learners of different proficiency levels may perform differently in pre-task planning (Kawauchi, 2005; Piao, 2011).

The second limitation arises from the tasks used in the present study. The participants all performed Task 1 under the unplanned condition and Task 2 under the planned condition. The present study did not employ a counterbalanced design, because of the limited sample size in each group. Although both tasks were selected from the materials developed for the TEPS speaking test and the post-task survey confirmed that the task

difficulties of the two tasks as perceived by the participants were not different, there is still a possibility that the different performances under the two conditions were influenced by the different features of the two tasks, which include not only task difficulty but also characters and other elements of the pictures that need to be described. Therefore in future research with a larger sample size, a counterbalanced design must be employed to prevent the intervention of the task variables. In addition, since the present study investigated only narrative tasks with six-frame picture sequences, the results cannot be generalized. Further research that includes other types of tasks will be able to make up for this limitation.

Another limitation of this study to be discussed is that the three types of planning were not exclusively differentiated but had some overlaps. It was observed that some of the free planners, who were intended to engage in strategic planning, actually wrote the script and read it aloud for reviewing and practicing, which can be viewed as a kind of rehearsal. On the other hand, in the rehearsal which allowed the participants to take a short time between rehearsals to think how to improve the content and language of their performances and to consult the dictionary, some participants spent more time on the mental planning than on the verbal rehearsals, making the planning process similar to strategic planning. The three groups of the present study rather seem to be conditioned by the combination of several factors such as note-taking (allowed only for strategic planning), using the dictionary (allowed for all, but less frequent in rehearsal), verbal rehearsal, and the provision of a guiding worksheet. These factors are the variables that can be separately or jointly operationalized as a construct in future

studies, in order to provide more detailed information for the design of the planning activity.

Finally, in discussing some findings of the present study, the need for further research is suggested regarding the measurement for the analysis of oral productions. One of the interesting findings in this study is the discrepancy in the results for accuracy between the transcript analysis and the assessors' rating. To address this problem, the conventional method of measuring accuracy of the learners' oral production based on the pruned transcript excluding repairs needs to be reviewed in the future research. The present study presents another interesting finding about the trade-off between syntactic complexity and lexical complexity. In literature to date, however, the lexical aspect of complexity was under-investigated. As Skehan (2009) claims, indices of lexical performance can add an important performance area to fluency, complexity and accuracy, and future investigations including this aspect can contribute to the better understanding of the roles of pre-task planning in language learning.

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APPENDICES

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APPENDIX 1. Worksheet for Guided Planning

1. 사건의 전개, Brian의 생각이나 감정을 중심으로, 각 그림에 대해 말할 내용을 마음속으로 정하고, 필요한 중심어구들을 적어보세요. (6분)

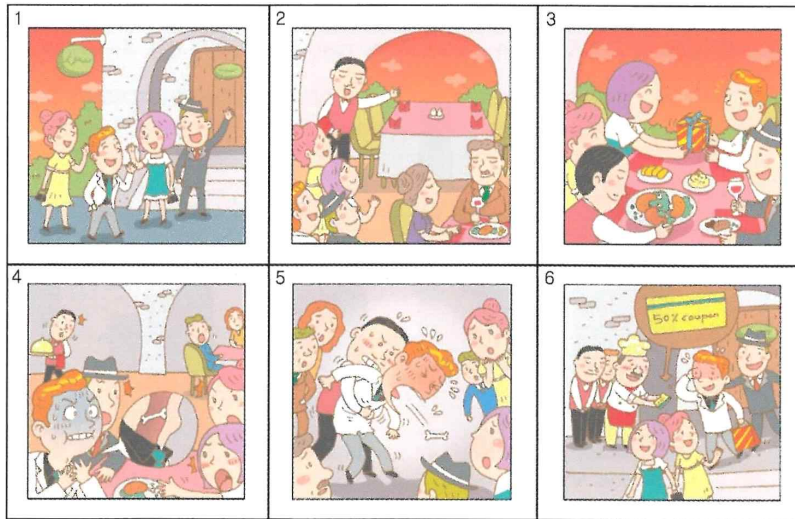
		
		

2. 이야기에 사용할 주요 어구를 소리 내어 말해보면서 동사의 형태를 점검해보세요. (2분)
3. 적은 내용을 다시 살펴보면서 이야기의 흐름을 점검하고, 필요한 연결 어구를 생각해보세요. (2분)

APPENDIX 2. Picture Sets for the Tasks

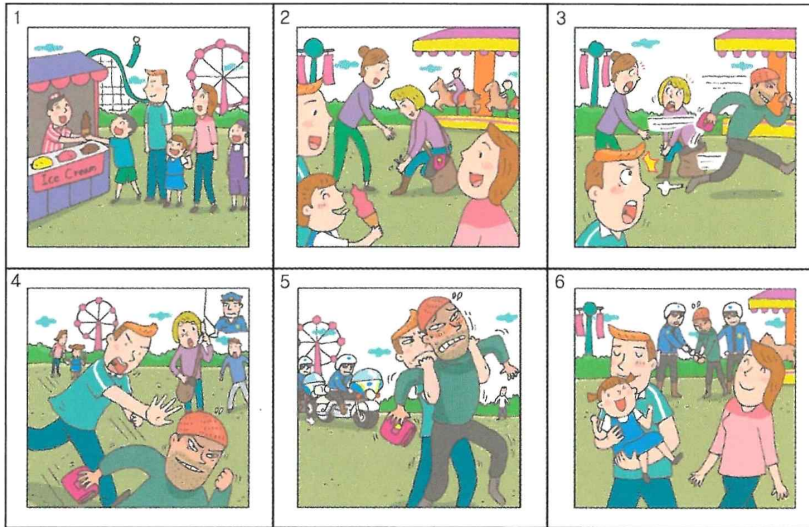
<Familiarization Task>

You are going to tell the story about the time Brian had a memorable dinner with some friends.



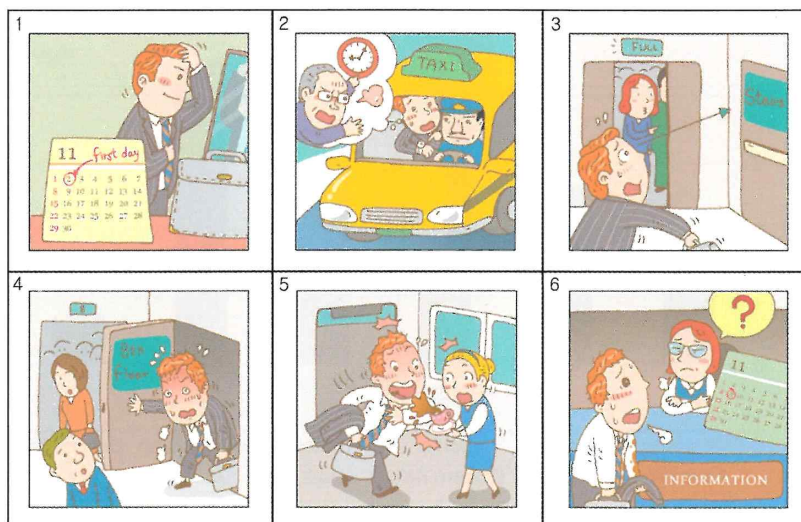
<Task 1>

You are going to tell the story about how Brian caught a pickpocket last Saturday.



<Task 2>

You are going to tell the story about when Brian mistook the first day at his new job.



APPENDIX 3. Task Instructions

<Common Instruction>

이번에는 이야기를 좀 더 잘 구성하여 적절한 표현으로 전달할 수 있도록 준비할 시간을 드리겠습니다. 먼저 이야기를 파악하기 위해 30초 동안 그림을 살펴보겠습니다. 주어진 지시문을 읽고, 그림을 살펴보세요. (30초 후) 그림에서 명확하지 않은 점이 있으면 질문하세요. 이제 10분 동안 말할 내용과 표현을 준비하겠습니다. 내용뿐만 아니라 어휘와 어법의 정확한 사용에도 주의를 기울여주세요.

<Instruction for Free planning>

준비하는 동안 사전을 검색하거나 필요하면 메모지에 필기를 해도 좋습니다. 실제 말하기를 할 때는 메모한 것을 볼 수 없습니다. 준비시간이 제한되어 있으니 할 말을 모두 적으려고 하지는 마십시오.

<Instruction for Guided planning>

활동지의 지시에 따라 말할 내용과 표현을 준비하겠습니다. (활동지 설명) 필요하면 사전을 검색해도 좋습니다. 실제 말하기를 할 때는 활동지를 볼 수 없습니다.

<Instruction for Rehearsal>

리허설을 통해 말하기를 연습, 준비하겠습니다. 주어진 10분 동안 할 수 있는 만큼 이야기를 반복해봅니다. 말이 막히더라도 이야기를 중간에 끊지 말고 끝까지 해보세요. 일단 이야기를 완성하고 나서 좀 더 잘 말 할 수 있도록 필요한 어휘를 사전에서 찾아보거나 계획을 점검한 후 다시 이야기를 반복하는 식으로 진행합니다.

APPENDIX 4. Post-task Questionnaire

계획 여부와 상관없이 이야기 내용이 말하기에 어땠는지 난이도를 평가해주세요.

	매우 쉬움	쉬움	약간 쉬움	약간 어려움	어려움	매우 어려움
Task 1 (pickpocket)						
Task 2 (the first day)						

각 문항의 내용을 읽고 자신의 생각과 일치하는 곳에 표시해주세요.

	전적으로 그렇다	매우 그렇다	그런 편이다	그렇지 않은 편이다	매우 그렇지 않다	전적으로 그렇지 않다
1. 준비 시간이 주어진 경우 말하기가 더 수월했다.						
2. 준비 시간이 주어진 경우 말하기에 더 자신감을 느꼈다.						
3. 준비 시간이 더 길었으면 말하기를 더 잘할 수 있었을 것이다.						
말하기 준비시간 동안	4. 각각의 그림에 대해 말할 내용을 생각했다.					
	5. 이야기의 순서와 내용의 흐름을 생각했다.					
	6. 필요한 어휘(단어/숙어)를 생각했다.					
	7. 필요한 문법(어순/형태)을 생각했다.					
준비 후 실제 말하기를 할 때	8. 각각의 그림에 대해 말할 내용에 주의를 기울였다.					
	9. 이야기의 순서와 내용의 흐름에 주의를 기울였다.					
	10. 어휘(단어/숙어) 선택에 주의를 기울였다.					
	11. 문법(어순/형태)에 주의를 기울였다.					

APPENDIX 5. Example of the Analyzed Transcription

R09 /Raw Script

{ }: repair

(): filler

Brian and his family went to the amusement park and the family bought a chocolate ice cream {they had a} they had {a} a happy time and the man who has {yellow} yellow hair has tied his boots and suddenly the pick-pocket stole (uh) some kind of wallet from the man Brian saw it and Brian ran to the pick-pocket and {other} other people called the police Brian caught him and grabbed him with his two arms so the police {can} could catch the pick-pocket (um) {so finally Brian's family had a} (잠깐만) (uh) so therefore Brian and his family were happy

total speaking time: 1.42, actual articulation time: 0.44

141 syllables, 6 repairs, 4 fillers

R09/Pruned Script

[]: subordinate clause

italic: error

bold: verb

(AS01) Brian and his family **went** to the amusement park (AS02) and the family **bought** a chocolate ice cream (AS03) they **had** a happy time (AS04) and the man [who **has** yellow hair] *has tied* his boots (AS05) and suddenly the pick-pocket **stole** some kind of wallet from the man (AS06) Brian **saw** it (AS07) and Brian **ran to** the pick-pocket (AS08) and other people **called** the police (AS09) Brian *caught* him and **grabbed** him with his two arms (AS10) so the police **could catch** the pick-pocket (AS11) so therefore Brian and his family **were** happy

85 words, 11 AS-units, 12 clauses

9 error-free clauses, 3 errors

13 verbs, 11 correct verb forms

APPENDIX 6. Scoring Rubric

<Task Completion>

5	All of the six pictures are described with many required details* and none of them is different from the pictures. The story is well-formed as a whole and all sentences are cohesively connected.
4	All of the six pictures are described with some required details* and none of them is different from the pictures. The story is generally well-formed as a whole but connection between some sentences are not very strong.
3	All of the six pictures are described but few required details* are included or some details are slightly different from the pictures. The story is generally well-formed as a whole but some sentences are ineffectively connected.
2	One or two of the six pictures are not described or no required detail* is included. Some details are very different from the pictures or some evident information is missing (e.g. who called the police or why he took the stairs instead of the elevator). The story is formed as a whole but many sentences are ineffectively connected.
1	Less than three pictures are described or many descriptions are different from the pictures. Sentences are not cohesively connected and fail to form a complete story.
0	Descriptions are too limited to make a story.

* required details: Brian's thoughts, feelings, description of the place and people

<Fluency>

5	The speaker steadily produces a smooth flow of speech at a speed similar or only slightly slower than a native speaker, and there are almost no pauses that interfere with communication. The speaker uses mostly native-like repair strategies, which are not distracting.
4	The speaker generally produces a smooth flow of speech at a speed slightly slower than a native speaker, although he/she is sometimes hesitant as he/she searches for patterns and expressions. There are few evident repairs, which is rarely distracting
3	The speaker produces stretches of language with fairly even tempo, although slower than a native speaker. There are a few noticeably long pauses for grammatical and lexical planning and some evident repairs may be slightly distracting.
2	The speaker produces a slightly unnatural flow of speech which is slower than a native speaker. There are many noticeably long pauses and many evident repairs and false starts, which is fairly distracting.
1	The speaker produces a very unnatural flow of speech which is much slower than a native speaker and makes him/her understood in short utterances. Pauses, repairs and false starts are excessive and very distracting.
0	The speaker fails to produce a connected speech.

<Accuracy>

5	The speaker steadily uses correct structures/forms and proper vocabulary with accuracy. Errors are rare and difficult to spot and most of them are self-corrected if they do occur.
4	The speaker generally uses correct structures/forms and proper vocabulary. There are a few inaccurate forms and awkward words/expressions, but many of them are self-corrected.
3	The speaker has general control of basic grammar and vocabulary. There are several evident errors but they rarely hinder communication.
2	The speaker has general control of basic grammar and vocabulary. There are many evident errors and they slightly hinders communication.
1	The speaker has limited control of grammar and vocabulary and sometimes fails to construct complete sentences or to find proper words/expressions. Incorrect forms and improper words/expressions are steadily used, which greatly hinders communication.
0	The speaker has too limited control of grammar and vocabulary to carry out the task.

* Article (a/the) errors are to be ignored.

국문 초록

과업 전 계획 활동 방식이 영어 말하기 과업 수행에 미치는 영향 (The Effects of Different Types of Pre-task Planning on English Oral Task Performance)

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김 명 속

제2언어 말하기 과업 수행에 있어서 과업 전 계획 활동의 역할에 대한 연구는 과업중심언어교수, 인지론적 언어학습모형과 관련하여 활발하게 이루어져 왔다. 계획 활동은 일반적으로 제2언어 학습자가 더 나은 발화를 산출하는데 긍정적인 효과를 미친다고 여겨지고 있지만 발화의 복잡성이나 정확성에 대한 계획 활동의 효과는 명확하지 않다. 계획 활동이 말하기 수행의 내용뿐만 아니라 언어 형식 면에서의 복잡성 및 정확성을 강화하는 데에도 충분한 영향을 미칠 수 있도록 하기 위한 시도로서, 본 연구에서는 선행 연구에서 일반적으로 다루어져 온 전략적 계획에 세부 지침을 부가하는 방안과 전략적 계획이 아닌 예행연습을 통해 과업을 계획하는 방안에 대해 검토하고자 하였다.

중급 수준의 한국인 고등학생 27명을 대상으로 한 실험을 통해, 세 가지 방식의 계획 활동(세부 지침이 주어지지 않은 전략적 계획, 세부 지침이 주어진 전략적 계획, 예행연습)이 그림보고 이야기하기 과업에서 산출된 발화에 미치는 영향을 고찰하였다. 여섯 장의 그림을 보고 이야기를 구성하여 말하는 두 개의 과업이 주어졌으며, 참가자들은 세 집단으로 나뉘어 첫 번째 과업은 준비 없이, 두 번째 과업은 집단 별로 주어진 조건에 따라 10분간의 계획 활동을 한 뒤에 수행하였다.

학습자들의 이야기하기 과업 산출물은 발화를 전사하여 분석하는 방법과 채점자가 듣고 채점하는 방법, 두 가지 방법을 통해 분석하였다. 학습자들의 발화를 전사한 자료를 분석하여, 계획 활동 없이 수행한 과업과 계획 활동 후에 수행한 과업에서의 학습자 언어 특성을 발화의 양, 유창성, 복잡성 (어휘 복잡성, 구문 복잡성) 및 정확성을 나타내는 여러 지표로 수치화 하였다. 두 명의 원어민 채점자가 녹음된 학습자들의 발화를 듣고 채점 기준에 따라 과제완성, 유창성, 정확성에 대한 점수를 부여하였다. 전사자료 분석과 원어민 채점의 결과는 반복측정 다변량 분산분석과 대응표본 T검정을 통해 통계적으로 분석하였다. 추가적으로, 결과의 해석에 참고하고자 실제 계획 및 과업 수행 과정에 대해 설문과 인터뷰를 통해 조사하였다.

연구의 결과로 과업 전 계획 활동이 제2언어 학습자들의 말하기 과업 수행에 긍정적인 영향을 주는 것이 확인되었다. 계획 활동 후 수행한 과업에서, 비록 정확성 면에서는 즉각적인 효과가 없었지만, 발화의 양, 유창성, 정확성이 유의미한 향상을 나타내었다. 이는 과업 전 계획 활동의 도움으로 학습자들이 더 많은 언어를 산출하고 또한 그 과정에서 언어적 지식을 원활하게 적용할 뿐만 아니라 학습자 언어체계 내에서 아직 습득이 완전히 이루어지지 않은 부분까지 도전적으로 활용하고 있음을 보여주는 것으로, 과업 전 계획 활동이 언어 학습에 기여할 수 있음을 시사한다.

또한 계획 방식의 차이에 대한 본 연구의 결과에 따르면, 세 가지 계획 활동 방식은 언어의 복잡성에 미치는 효과와 관련한 차이가 있었다. 계획 시간만 주고 자유롭게 계획하도록 한 경우 계획을 하지 않은 말하기에 비해 어휘 복잡성과 구문 복잡성 모두가 다소간의 향상을 보인데 비해, 세부 지침에 따른 전략적 계획에서는 학습자들이 계획 활동지의 영향으로 어휘적 측면에 집중하게 되어 구문 복잡성의 향상 없이 어휘 복잡성만 향상되었다. 이와 반대로 예행연습을 통해 과업을 준비한 학습자들의 경우, 예행연습을 반복하면서 점차 말할 내용을 덧붙여, 구문은 더 복잡해진 한편 어휘 복잡성은 향상되지 않았다. 이러한 결과는 계획 활동의 방식을 조절함으로써 계획 효과가 언어의 특정 영역에 집중될 수 있음을 보여준다.

본 연구의 결과의 해석 및 적용에는 연구 설계상의 몇 가지 한계점과 관련, 주의가 요구된다. 그럼에도 본 연구는 과업 전 계획 활동이 말하기 과업 수행과 언어 학습에 도움을 줄 수 있는 유용한 도구임을 제시하며, 나아가 계획 방식에 따른 차이에 대한 연구 결과와 관련하여, 계획 활동의 여러 요소에 대한 후속 연구를 바탕으로, 과업 전 계획 활동을 적절하게 설계하여 활용할 것을 제안한다.

주요어: 과업 전 계획 활동, 전략적 계획, 예행연습, 영어 말하기, 그림보고 이야기하기, 과업중심언어교수

학번: 2007-21599