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Examining the Effects of Types of Pretask Planning on Oral Performances

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In this study, I explored the effects of pretask planning on the oral performance in monologue tasks of Japanese university students. The participants in this study were 29 first-year Japanese university students. A Latin square design was employed. The participants did a monologue narrative task with four different types of planning: solo-written brainstorming, paired-interactive planning, teacher-led planning, and no planning. For each planning condition, 58 speech samples were analyzed totaling 232 speech samples in all. The speakers' oral performances were audio recorded and analyzed based on the CAF (complexity, accuracy, and fluency) framework. Multivariate analysis of variance (MANOVA) results indicated that teacher-led planning and pair-work planning had a significant effect on complexity in students' speaking performance when compared to the no-planning condition. The importance of input-mining and teachers' roles is discussed.

本研究は、日本人大学生のスピーキングに焦点を当て、モノローグ型タスクを行う前の準備活動 (pretask planning) の効果について調査した。研究参加者は29名の大学1年生である。ラテン方格デザインを用いた。モノローグ型のスピーキング・タスクを行う前に、次の準備活動を行った (個別ブレインストーミング、ペアワーク、教師主導型、準備なし)。事前準備活動ごとに、58のスピーチサンプルが分析され、合計で232のスピーチが分析された。録音された音声データは文字起こしされ、CAF指標 (complexity, accuracy, fluency) に沿って分析された。多変量分散分析の結果から、学習者は、教師主導とペアワークによる事前準備活動を行うと、より複雑な文章を発することがわかった。タスクを行う前のインプットの効果とタスク活動における教師の役割について教育的な示唆を述べる。

Research into pretask planning has received considerable attention from second language researchers for more than 15 years (Foster & Skehan, 1999; Ortega, 2005). According to Ellis (2005), planning is an

essential problem solving activity because it allows speakers to tackle the issues of “what to say and how to say it” (Ellis, 2005, p. 3). This pretask planning can be either rehearsal or strategic planning (Ellis, 2005, 2009b). In rehearsal planning, learners have an opportunity to complete a task before performing it, whereas in strategic planning, students are provided time to plan what content to express and what language to use without an opportunity for rehearsal. Strategic planning can take many different forms, including activities led by the teacher, activities with other learners, and solitary activities (Ellis, 2009b). Planning and its role in task-based language teaching (TBLT) are of theoretical and practical interest because planning is thought to help learners maximize their competence in task performance (Ellis, 2005).

Examining and understanding how pretask planning affects task performance have considerable pedagogical benefits. We know that pretask planning allows learners to be better prepared to achieve communicative goals, and that it can maximize learners’ readiness to engage in communicative tasks regardless of background knowledge (Bui, 2014). We also know that learners typically attend to content during pretask planning because that is the best way to achieve communicative goals (e.g., Park, 2010; Sangarun, 2005). However, in many previous studies that found these benefits (e.g., Ortega, 1999; Wendel, 1997; Wigglesworth, 1997), it was not clear how learners planned during the planning time because the planning was unguided or the planning method was not controlled. Therefore, the primary purpose of the current study was to investigate what kind of pretask planning improves learners’ oral performance in terms of complexity, accuracy, and fluency (CAF).

Ortega (1999), Kawauchi (2005), and Sangarun (2005), among others, explored pretask planning and its effects on learners’ oral performance with a particular focus on CAF. Many of these researchers have reported that pretask planning enhances oral fluency (Foster & Skehan, 2005; Ortega, 1999; Yuan & Ellis, 2003) as well as syntactic complexity (Ortega, 1999; Yuan & Ellis, 2003). The case for accuracy, however, is less clear, as researchers have reported cases of no improvement (Bui, 2014; Wendel, 1997; Yuan & Ellis, 2003) as well as cases where minor improvements were seen (Mehnert, 1998; Sangarun, 2005). These findings suggest that a trade-off effect occurs either (a) between fluency and accuracy or (b) between complexity and accuracy (Ellis, 2009b; Skehan, 1998).

Theoretical Background

One theoretical explanation for these findings about speaking is Levelt’s (1989) speech model. Levelt’s model, which was developed to describe L1

speaking processes, can also explain how information processing components might work for L2 speakers. This model has been used by L2 researchers to understand speech production (for a comprehensive explanation, see Izumi, 2003; Lambert & Kormos, 2014, Skehan, 2009). Levelt's speech model comprises three stages: the *conceptualizer*, the *formulator*, and the *articulator*. In the conceptualizer stage, speakers develop the propositional content of the message and decide what to say. For example, speakers select the relevant information, order this information, and keep track of what was said before. The product of these mental activities is called a preverbal message. Speakers then transform the preverbal message into linguistic form in the formulator stage, in which appropriate lemmas—form and meaning pairs that are contained in the lexicon and that represent the lexical entry's meaning and syntax—are selected and grammatical and phonological rules are applied to create a speech plan. The third stage is the articulator, which is where the speech plan is converted into spoken language. During this stage, speakers' internal linguistic knowledge is turned into audible sounds.

Skehan (2009) postulated a connection between Levelt's speech model and task-based speaking performance. Skehan explained that native speakers can engage in parallel processing (e.g., the formulator deals with the previous conceptualizer cycles while the conceptualizer simultaneously attends to the next cycle) because their mental lexicons are extensive and well organized. On the other hand, nonnative speakers' formulator stage requires more effort, and it includes repair and replacement. Skehan's (1998) limited attentional capacity theory is based on the notion that learners' working memory and attentional capacity are limited (VanPatten, 1990); thus, language learners are limited in terms of what they can focus on during meaning-oriented communication (Baddeley, 2007). Therefore, Skehan has suggested that raising performance in one area can come at the expense of performance in other areas. In other words, a trade-off can occur between fluency and form and between accuracy and complexity. Skehan also suggested that high-level performances can occur in two out of the three CAF components, but not in all three. Thus, increases in fluency can be accompanied by increases in accuracy or complexity, but not both. In particular, past research has indicated that complexity and accuracy do not increase in tandem.

Given that foreign language learners have limited working memory capacity, pretask planning can be beneficial because it can ease the cognitive pressure on learners' limited working memory capacities as they activate concepts and linguistic forms. Therefore, pretask planning is hypothesized to influence learners' oral performances positively (Foster & Skehan, 2005;

Ortega, 1999). Although most previous examinations of pretask planning support Skehan's limited attentional capacity theory (e.g., Wendel, 1997; Yuan & Ellis, 2003), they also show that fluency and syntactic complexity development typically occur but accuracy rarely improves (Bui, 2014; Yuan & Ellis, 2003).

Previous Studies of Pretask Planning Types

Previous researchers have investigated the effectiveness of different planning conditions. For instance, Foster and Skehan (1999) examined the effects of three types of strategic planning—teacher-led, solitary, and group-based planning—on 63 learners' speaking performances in decision-making tasks. They also examined the effects of planning with a focus on form and a focus on meaning. The findings showed that solitary planning and teacher-led planning affected CAF positively. The solitary-planning condition was significantly more effective than the no-planning condition in terms of complexity of student language, and the teacher-led condition was significantly better than the other conditions in terms of accuracy. Indeed, Foster and Skehan reported that the teacher-led condition helped learners attain high levels of complexity and fluency, which led them to produce a well-balanced performance. On the other hand, the group planning condition was not as effective as the authors hypothesized, possibly because the students had not been trained to work in groups.

Although Foster and Skehan's findings showed positive effects for planning, the study had two main limitations. First, group planning might have been ineffective due to the lack of group structure. Group members' disagreements on how to work collaboratively can interfere with efficient task planning (Batstone, 2005). Second, although the authors concluded that solitary planning was effective, they acknowledged that there was no clear understanding of what the participants in that condition had actually done.

Mochizuki and Ortega (2008) investigated how or to what extent teacher-guided and unguided planning affected 56 Japanese high school students' oral story-retelling task performance by comparing three planning conditions: no planning, 5 minutes of unguided planning, and 5 minutes of teacher-guided planning in the form of a handout about English relative clauses. No significant differences were found for fluency and complexity between guided and unguided planning; however, teacher-guided planning enhanced accuracy in terms of correctly formed relative clauses. The researchers interpreted this finding as indicating that pretask instruction focused on linguistic form benefited syntactic accuracy.

Kawauchi (2005) examined three types of solitary planning in which the learners used writing, rehearsing, and reading in a counterbalanced within-subject design that gave each group the opportunity to use each planning type over a 3-week period. The participants ($N = 39$) first performed a narrative task without planning. In subsequent weeks, each group took part in the three planning conditions: (a) In the writing condition, the participants had 10 minutes to write what they wanted to say when they performed the same task as in the no-planning condition; (b) in the rehearsal condition, the participants rehearsed the task for 10 minutes by talking aloud; and (c) in the reading condition, the participants read a model passage for task performance silently for 10 minutes, and then considered how they could perform the task.

Although no statistically significant differences were found among the three planning types in terms of CAF, Kawauchi identified differences between the groups in her analysis of the transcripts. The participants in the reading condition scaffolded lexis and multi-word units from the reading passages. For example, the participants used *juice box* or *play ball* when they did the task for the first time without any planning, but they used the lexical items that were similar to words in the teachers' modeled passage such as *vending machine* and *play with a ball* when they did the same task for the second time after reading the model. Based on these findings, Kawauchi concluded that lower proficiency learners benefit from pretask reading because reading the model passage possibly led to more accurate linguistic forms. On the other hand, the participants in the writing and rehearsal conditions attended to the meaning of the story rather than linguistic form.

Purpose of Study

The effects of pretask planning types have varied widely in previous studies (e.g., Foster & Skehan, 1999; Kawauchi, 2005; Mochizuki & Ortega, 2008). The purpose of the current study was to examine the effects of three distinct planning types on CAF: solitary brainstorming, pair work, and teacher-led planning. Specifically, this study was guided by two research questions.

- RQ1. To what extent do three planning conditions—solitary brainstorming, pair work, and teacher-led planning—affect students' oral performance (complexity, accuracy and fluency) compared to a no-planning condition?
- RQ2. Which of the three planning conditions—solitary brainstorming, pair work, or teacher-led planning—has the greatest

impact on enhancing students' oral performance in terms of complexity, accuracy, and fluency?

Method

Participants

The participants were 29 first-year Japanese university students (16 female and 13 male students) attending a private university in Japan who were enrolled in compulsory 90-minute English discussion classes held once a week and taught by the researcher. There were four classes of seven to nine students. Each met 14 times during the academic semester. .

Materials and Procedure

Monologue Speaking Task

Students' oral performances on monologue tasks were analyzed. A 3/2/1 task in which the participants expressed their opinions about two topics was used. The original 4/3/2 task was designed to help learners improve oral fluency, automaticity, and proceduralization (see Boers, 2014; De Jong & Perfetti, 2011; Nation, 1989; Thai & Boers, 2016). In this study, a shorter version of the 4/3/2 task, the 3/2/1 task, was employed due to the participants' limited language proficiency. In the task, one speaker talks about a particular topic for 3 minutes to a partner, retells the information in 2 minutes to a different partner, and then retells it a third time in 1 minute to a third partner. Table 1 shows the topics and questions used in the study. Students learned about the topics in their textbooks during class and the questions used in the study were created based on these topics. While the speakers performed the task, the listeners were instructed not to interrupt with comments and not to ask follow-up questions. After the first speaker performed the task three times, the second speaker spoke on the same topic to three different partners for 3 minutes, 2 minutes, and 1 minute. The participants were expected to express their ideas more fluently each time because of the increasing time pressure and the repetition inherent in the task design (De Jong & Perfetti, 2011, p. 538).

In this study only the first iterations of the 3/2/1 activity were analyzed because the purpose was to examine the pretask planning effects, not to examine the effects of task repetition. Any examination of the second or third iteration would not clarify whether the learner's performance was influenced by pretask planning or by the rehearsal in the first or second iteration.

Table 1. Topics and Task Questions for the 3/2/1 Oral Task

Week	Topic	Task questions
2	Language	Is it important for you to study English? Do you think everyone in Japan needs to study English?
3	Language	Have you ever been to a foreign country? Would you like to study abroad in the future? Why and why not?
4	Fashion	Do you think this university's students are fashionable? Do you think school uniforms are a good idea?
5	Fashion	What clothing stores do you usually go to? Why? What are some important things to consider when you buy new clothes?
6	Media	How do you usually get news? TV? Internet? Newspaper? What is your favorite TV program?
7	Media	Which celebrities do you respect? Do you respect celebrities or ordinary people?
8	Globalization	What is your favorite manga or anime? Who is your favorite Japanese singer?
9	Globalization	Which do you prefer, American movies or Japanese movies? Which do you prefer, Japanese pop culture or Japanese traditional culture?

Research Design

A Latin square design was employed. Table 2 shows the data collection schedule for the four classes included in this study. Each group took part in a different planning condition each week. The participants were exposed to the same condition twice during the experiment. For each planning condition, 58 speech samples were analyzed (29 participants x two times). In total, 232 speech samples were analyzed (29 participants x two times x four planning conditions).

Table 2. Data Collection Schedule

Week	Class A (n = 7)	Class B (n = 6)	Class C (n = 6)	Class D (n = 10)
1	Practice	Practice	Practice	Practice
2	BS	TL	PW	NP
3	TL	PW	NP	BS
4	PW	NP	BS	TL
5	NP	BS	TL	PW
6	BS	TL	PW	NP
7	TL	PW	NP	BS
8	PW	NP	BS	TL
9	NP	BS	TL	PW

Note. BS = brainstorming condition; TL = teacher-led planning condition; PW = pair-work condition; NP = no-planning condition; Practice = a practice session designed to familiarize the participants with the 3/2/1 oral task.

Planning Conditions

Four planning conditions were used in this study: no planning (NP), brainstorming (BS), pair-work (PW), and teacher-led (TL) planning. The participants in the no-planning condition, which was the control condition in this study, saw the task questions immediately before starting the task and then performed the 3-minute speaking task without engaging in any planning. The participants in the brainstorming condition, which was a solitary planning condition, had 4 minutes to write as many ideas as possible in English about the task topic provided on a handout. They were instructed to write words or phrases rather than complete sentences. For example, when the monologue question was “Is it important to study English?” students brainstormed and wrote associated ideas such as *future job*, *TOEIC*, *study abroad*, *globalization*, and *traveling*. The brainstorming condition was designed to help the participants generate ideas and activate relevant concepts before speaking. After the 4-minute brainstorming concluded, the handouts were collected.

The participants in the pair-work condition received an instruction sheet and had 4 minutes to ask questions about the topic to a partner. For instance, if one student said, “In my opinion, studying English is important,” their partner asked follow-up questions to elicit more information. Both students asked and answered questions in this condition. For example, a typical example of pair-work planning is as follows:

Partner A: In my opinion, English is important to learn.

Partner B: Why do you think so?

Partner A: It's mainly because I want to study abroad next year. I would like to improve my English.

Partner B: For example, where do you want to study abroad?

Partner A: One example is America. It is because I want to live in New York.

The pair-work condition was expected to help the participants activate appropriate concepts and better understand what information about the topic would be helpful or interesting for listeners.

The participants in the teacher-led planning condition silently followed along while the teacher read a model passage that consisted of 300-400 words. It usually took 1.5 to 2 minutes for the researcher to read the model passage aloud. The aim was to provide the participants with examples of what to talk about and ways to express their ideas. Some useful phrases, such as *in my opinion*, *one reason is*, *it's mainly because*, and *for example*, were underlined. After the teacher read the model passage, the handouts were collected. The teacher-led planning can be considered to be a planning condition because students might consider what they will talk about and how they will talk about it while they listen to the teacher's model. In addition, there were approximately 20-30 seconds after the handouts were collected before the students started the monologue tasks. During that time, students could plan what they wanted to say. The students were not permitted to refer to dictionaries or other external resources during task performance.

Data Collection

In the first week of the semester, the participants practiced the 3/2/1 task without any planning time to become familiar with the task. The students' oral performances were recorded from the 2nd to the 9th week of the semester. An IC recorder was placed on a desk near each pair of speakers. The first 3 minutes of the participants' initial 3-minute speaking performance were transcribed by the researcher.

Pruning

The speech samples were transcribed and the self-corrections and repetitions were excluded to produce transcriptions of pruned speech. This transcript was analyzed using the syntactic complexity and syntactic accuracy measures. For pruning, false starts, repeats, and filled pauses were omitted

as in previous studies (e.g., Kawauchi, 2005; Thai & Boers, 2016). Longer utterances were considered more complex; therefore, self-corrections and repetitions were omitted because they would have increased the complexity measures and decreased the accuracy measures. For example, when a speaker made a self-correction like “She have . . . has,” *have* was omitted because the speaker noticed the error and self-corrected. Another example is when a speaker engaged in repetition, such as “I think I think I think,” only one instance (i.e., “I think”) was retained. The CAF measures are described in the following sections.

Discourse Analytic Measures

Complexity

Syntactic complexity was measured using (a) the number of clauses per AS-unit (analysis of speech unit) after pruning and (b) the mean length of the AS-units after pruning (number of words per AS-unit). An AS-unit is defined as “a single speaker’s utterance consisting of an independent clause, or sub-clausal unit, together with any subordinate clauses associated with either” (Foster, Tonkyn, & Wigglesworth, 2000, p. 365). The first measurement, which indicates syntactic complexity produced by subordination, was calculated by dividing the total number of clauses by the total number of AS-units using the pruned speech data. The second measurement, which indicates overall complexity (Norris & Ortega, 2009), was calculated by dividing the total number of words by the number of AS-units.

Accuracy

Accuracy refers to the ability to avoid morphosyntactic errors (Ellis, 2009b; Foster & Skehan, 1999). Two measures of accuracy were used: the percentage of error-free clauses after pruning and the percentage of error-free AS-units after pruning. Accuracy was determined by whether or not the learners ultimately produced an accurate utterance. For example, if a learner said, “I feeled . . . I felt sad at that time,” the utterance was considered accurate because the learner noticed the error and self-corrected.

Fluency

Fluency was initially measured using (a) syllables per minute with self-corrections and false starts and (b) syllables per minute after pruning (see Mochizuki & Ortega, 2008; Thai & Boers, 2016). This measure was produced using the syllable counter found at <<http://www.syllablecount.com>>. The

speech data were transcribed by the author and then checked by another university teacher. A randomly selected sample of 10% of the total data was examined for complexity and accuracy by two raters. The two raters agreed 91% of the time. Areas of disagreement were discussed until the raters came to an agreement.

Before conducting the Multivariate analysis of variance (MANOVA), Pearson correlations were produced to determine the strength of the relationships among the dependent variables. The six dependent variables displayed correlation coefficients between $-.21$ and $.89$. Because the two fluency measurements correlated at $r = .89$, close to the $.90$ level indicating multicollinearity (Tabachnick & Fidell, 2001, p. 84), only one fluency variable, syllables per minute after pruning, was used because the measurement is based on the pruned speech as are the complexity and accuracy measures.

Analyses

A one-way MANOVA was run to answer the research questions concerning the effect of planning on the participants' oral fluency, complexity, and accuracy. The independent variable was the planning condition (four levels: no planning, brainstorming, pair work, and teacher-led planning), and the dependent variables were the six analytical measures for complexity, accuracy, and fluency.

Results

Table 3 shows the descriptive statistics for the analytical measures. The teacher-led condition had the highest mean for complexity in terms of both clauses per AS-unit and mean length of AS-unit, and the no-planning condition had the lowest mean scores. The teacher-led condition also generated the highest percentage of error-free clauses and error-free AS-units. The least accurate language was produced under the brainstorming condition. The pair-work condition was the most fluent. The no-planning condition showed the lowest speech data for both measurements.

Table 3. Means and Standard Deviations of Analytical Measurements for Four Planning Conditions

Measurement	NP <i>M (SD)</i>	BS <i>M (SD)</i>	PW <i>M (SD)</i>	TL <i>M (SD)</i>
Complexity				
Clauses per AS-unit	1.25 (0.21)	1.35 (0.33)	1.35 (0.29)	1.40 (0.28)
Mean length of AS-unit	8.18 (1.73)	9.23 (2.35)	9.26 (2.17)	9.47 (2.34)
Accuracy				
Error-free clauses	63.21% (17.44)	63.23% (15.94)	62.81% (14.27)	68.74% (14.81)
Error-free AS-units	55.74% (17.27)	50.60% (19.71)	52.23% (15.87)	57.60% (16.52)
Fluency				
Syllables per minute (After pruning)	68.14 (18.06)	70.64 (19.17)	74.54 (20.22)	70.20 (17.93)

Note. NP = no-planning condition; BS = brainstorming condition; PW = pair-work condition; TL = teacher-led planning condition.

Levene's test of homogeneity of variances was performed and found to be significant ($p < .01$); thus, Pillai's Trace was used for assessing the MANOVA results. Significant differences were found among the four planning conditions, Pillai's Trace = .13, $F(15, 678) = 2.06$, $p = .01$, partial $\eta^2 = .04$. Follow-up ANOVAs and post hoc tests using the Dunnett C method were therefore conducted. The alpha level was set at .02 using a Bonferonni calculator (<http://www.quantitativeskills.com/sisa/calculations/bonfer.php>) to avoid committing a Type I error. This alpha level was arrived at using an initial alpha level of .05, five comparisons, and an average correlation among the variables of .39. This adjustment provides a balance between the possibility of committing Type I and Type II errors.

As shown in Table 4, the difference among the task conditions was significant for two of the dependent variables: clauses per AS-unit, $F(3, 228) = 3.24$, $p = .02$, $\eta^2 = .041$, and mean length of AS-unit, $F(3, 228) = 4.12$, $p = .007$, $\eta^2 = .051$. The results for the remaining three variables—error-free clauses, error-free AS-units, and syllables per minute after pruning—were not significant.

Table 4. Follow-Up ANOVA Summary Table

Analytic measure	Measurement	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Complexity	Clauses per AS-unit	3	3.24	.02	.04
	Mean length of AS-units	3	4.12	.007	.05
Accuracy	Error-free clauses	3	2.09	.10	.03
	Error-free AS-units	3	2.63	.05	.03
Fluency	Syllables per minute (after pruning)	3	1.16	.33	.01

Dunnnett's C post hoc tests were conducted for clauses per AS-unit to investigate differences in the efficacy of the planning conditions on the participants' oral performance (complexity). There were significant differences between the teacher-led condition and no-planning condition in terms of clauses per AS-unit, as well as significant differences between (a) the teacher-led condition and the no-planning condition and (b) the pair-work condition and no-planning condition for mean length of AS-units. Overall, the results indicated that teacher-led planning and pair-work planning were more effective than no planning for promoting syntactic complexity.

Discussion

In sum, the MANOVA results and descriptive statistics showed that (a) students in the teacher-led planning condition produced more complex sentences in terms of more clauses per AS-unit and longer utterances compared to the no-planning condition; (b) students in the pair-work condition also produced more complex utterances in terms of making longer utterances; (c) although the differences were nonsignificant, there was a trend toward greater accuracy in the teacher-led planning condition with well-balanced performances in terms of greater complexity and accuracy; and (d) there was a tendency for the pair-work condition to produce utterances with greater fluency.

In line with previous findings, this study showed that pretask planning is beneficial compared to a no-planning condition. Generally, pretask planning enhances fluency (see Foster, 1996; Wendel, 1997). However, the results showed that planning was statistically beneficial for complexity only. The participants in the teacher-led condition and the pair-work condition produced significantly more complex utterances than did those in the no-planning condition. This might have occurred for a number of reasons.

First, the teacher-led condition appeared to give the learners opportunities to consider what they would say. Being exposed to the model input possibly allowed speakers to work with ideas and organize the ideas to be expressed. This suggests that syntactic structure is strongly affected by the conceptualization stage in Levelt's (1989) model (Skehan, Bei, Li, & Wang, 2012; Wang, 2014). The conceptualizer stage involves drawing information from memory and forming a preverbal plan as input for the formulator stage. When the participants were exposed to a model passage, there was less pressure in the conceptualization stage, which could possibly have allowed them to access and retrieve topic-related lexis relatively easily in the formulation stage.

The input provided by the teacher appeared to be reproduced by several students. Of course, we cannot know from observation alone exactly what was processed by the learner from the input, but there was some evidence of students producing similar ideas in their production. For example, under the teacher-led condition, four students said that the reason that they are in favor of school uniforms was that the students lacked a sense of fashion. This reason was similar to the teacher-led model, which stated, "I think school uniforms are a good idea The second reason is that I am not fashionable. I don't know what to wear every day." On the other hand, the reasons given varied more in the no-planning condition. For example, school uniforms were viewed favorably because of social rules, ease of use, and their unifying influence. When a student stated that school uniforms were not a good idea, the reasons were often similar to the teacher-led model: "School uniforms are not comfortable if the weather is too hot or too cold." Conversely, students in the no-planning condition did not give any reasons related to the weather. This can be explained by Prabhu's (1987) idea of *borrowing*, in which the participants tried to fill the gap in their current knowledge by reading related materials. When students know what to say (conceptualization), they can more easily move to the next stage of how to say things (formulation and articulation).

Second, it is plausible that teacher-led planning allowed the participants to allocate attentional resources to monitor how to express their ideas. Although what the participants noticed in the input was not investigated in this study, there is a high probability that the participants noticed the target linguistic forms, as salience was increased by underlining them (for studies concerning the effectiveness of typographical cues such as underlining, bolding, and italicization, see Doughty, 1991; Lee & Huang, 2008; Sharwood Smith, 1993). The participants possibly noticed useful lexical multiword

units such as *one reason is that and it is mainly because*. Evidence for this possibility could be seen in some of the phrases that the participants produced: “If I can sing English at karaoke, my friends will be very surprised,” “One reason is that I want to go abroad in the future,” “One reason is if Japanese people study English more, Japanese is not focused on.” These utterances were similar to those in the reading passage, which included the following sentences: “One reason is I want to travel to English speaking country” and “If I have higher TOEIC scores, I might work abroad such as New York or London.” Noticing these linguistic forms in the teacher-provided input might have enabled the learners to use them to produce more syntactically complex utterances. The low oral proficiency learners in this study might have had difficulty accessing long utterances without planning because of limited working memory capacity (Bui, 2014, p. 81). The use of more pre-fabricated phrases and relatively short expressions might have eased pressure on working memory because these are easily accessible in long-term memory (Bui, 2014). Planning time allowed speakers to produce longer and more complex utterances.

Third, the pair-work planning condition might have helped learners to produce greater complexity because this condition possibly functioned as a form of rehearsal. The participants in the pair-work condition asked each other questions about the day’s topic and were expected to elicit each other’s knowledge and develop ideas that they could talk about. This might have constituted a form of rehearsal given that they could repeat similar utterances during the 3/2/1 task even though what they said was not a verbatim repetition of the pair-work condition. These results support Ellis’ (2009b) suggestion that task repetition benefits complexity and fluency. These improvements in syntactic complexity might have occurred because rehearsing during pair-work planning decreased the learners’ cognitive load and allowed for greater chunking of lexical and syntactic units. As Wang (2014) has argued, immediate repetition allows speakers to build on the knowledge and performance of the first enactment, and this possibly influenced speaking processing and language product positively.

There are three possible reasons that no significant differences in oral fluency arose. First, there were only 29 participants in this study, so no significant differences in oral fluency might be a result of low statistical power. Second, in terms of time on task, if the participants did not need much planning time, then the time on task (3 minutes) might have provided sufficient time for the students to plan while they performed the task. The relationship between time on task and online planning should be further investigated in

future studies (see Yuan & Ellis, 2003). Lastly, only one measure of fluency (number of syllables per minute after pruning) was used for the analysis. Because fluency is multidimensional (Tavakoli & Skehan, 2005), a follow-up analysis should be conducted to ascertain if other fluency factors such as repair fluency (e.g., repetition, false starts) or breakdown fluency (e.g., the length of pauses) differed depending on the planning condition.

Pretask planning did not significantly increase the participants' syntactic accuracy, as there were no systematic differences between the planning and no-planning conditions. This finding was consistent with some previous studies (Wendel, 1997; Yuan & Ellis, 2003). It can be explained by Levelt's (1989) speech production model in which speakers first attend to conceptualization. Lower proficiency students in particular cannot attend to meaning (here referring to the ideas expressed) and form (complexity or accuracy) simultaneously (Anderson, 1995; Yuan & Ellis, 2003), which leads them to prioritize either form or meaning to achieve their communicative goals. Therefore, without explicit instruction of what to do while planning, learners try to generate ideas rather than focus on syntactic accuracy (Park, 2010).

According to Skehan's limited attentional capacity model, a trade-off between meaning (here referring to fluency) and form occurs while engaging in a task. The findings of this study support this trade-off hypothesis. For example, the brainstorming condition helped the participants produce high fluency scores but accuracy suffered.

Another notable finding is that the results did not indicate that the three planning types influenced the learners' performances to different degrees. No significant differences were found between the individual planning conditions although there was a significant difference between (a) the teacher-led and pair-work conditions and (b) the no-planning condition. This result confirmed Kawauchi's conclusion that "different types of planning did not influence the learners' performance" (p. 162).

In spite of the nonsignificant statistical differences among planning types, teacher-led planning produced the highest mean score for both complexity and accuracy, and the third highest mean score for fluency (see Table 3). Foster and Skehan (1999) also found that teacher-led planning conditions produced the most balanced performances (the highest accuracy and acceptable levels of fluency and complexity) among solitary, group-based, and no-planning conditions. This study's findings also suggest that teacher-led planning helped the participants produce well-balanced performances.

As shown by the descriptive statistics, in addition to complexity gains, recycling language from the teacher-led planning texts contributed to accuracy gains. These results are consistent with the findings of research using similar “input-mining” activities (Boston, 2010; Kawauchi, 2005). In this regard, both teacher-led planning and pair-work planning involve input mining. The pair-work condition allowed the speakers to rely on recycling from input; that is, the language produced by their peers. However, pretask planning without resources to help students verify language did not help them eradicate inaccuracies. The teacher-led condition provided more accurate and richer models for students to mine, which might account for the superior language quality in this condition.

Finally, this study has raised another important issue: the role of the teacher in the task-based classroom. TBLT is generally learner centered, meaning focused, and goal oriented. According to Ellis (2009a), one of the concerns voiced by researchers and educators against TBLT is that attention to form in TBLT is limited (Sato, 2010; Swan, 2005). One way to balance communication and attention to linguistic form in TBLT is to add form-focused instruction to the communicative tasks (Ellis, 2016; Ortega, 2012). Students’ systematic use of language mined from the teacher’s model input helped to produce some examples of content generalization. For example, as shown above, four students borrowed reasons from the teacher’s modeled input, but students in the other conditions did not give the same reasons. In addition, it is possible that the input enhancement through underlined target phrases in the teacher’s input led the students to pay attention to the formulaic language. The current study suggests that input enhancement by the teacher might play an important role in the task-based classroom (Samuda, 2001). The role of the teacher in TBLT should be considered more fully when using tasks in order to effectively guide learners toward efficient language processing and L2 development.

Conclusion

This study explored the effects of pretask planning types on learners’ oral performance. The findings indicated that there was a statistically positive influence on complexity from the teacher-led and the pair-work planning conditions. Given that pretask planning usually leads to increases in fluency, these results were inconsistent with the results of most previous studies in terms of fluency.

The following limitations need to be acknowledged. The first is the small sample size ($N = 29$) and consequent lack of statistical power. Studies with

larger numbers of students need to be conducted in the future. Second, the findings may still not be sufficient to understand how the participants use the templates and input provided them. For future research, the inclusion of a qualitative analysis would be of benefit to researchers to ascertain what the participants are doing during the planning stages. Posttask interviews, retrospective interviews, think-aloud protocols, or open-ended questionnaires may have the potential to facilitate a fuller understanding of pretask planning.

In spite of these limitations, the findings of this study provide some implications for task-based classroom teaching. First, pretask planning helps learners to produce more complex utterances. Of particular note, the teacher-led condition might play an important role in increasing complexity, as previous studies have found (Foster & Skehan, 1999; Kawauchi, 2005; Mochizuki & Ortega, 2008). One reason is that the teacher-led condition can assist learners by modeling content during the input phase. As Wang (2014) suggested, intervention with content conceptualization enables learners to achieve higher syntactic complexity. The second reason is that teacher-led planning can assist learners to activate, extend, and refine their current interlanguage resources and processing capacities (Samuda, 2001). This means that teacher-led pretask planning—such as showing model input—could possibly encourage students' development toward form–meaning mapping. Hence, teachers retain an important role as “language guide facilitators” (Willis, 1996) in the task-based classroom by providing students some input-enhancements to maximize opportunities for them to notice language forms. Furthermore, as this study has demonstrated, research using actual classroom tasks can increase our understanding of students' task-based performance, strengthen the connection between research and application, and enhance students' speaking practices via research-based pedagogy.

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