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Role of Preparation using Mobile Application for Summary-speaking Task in Face-to-face English-Speaking Pair Work

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Abstract: The study proposes a learning method that combines English summary-speaking tasks using Mobile Application for Summary-speaking Task (MAST) as preparation and face-to-face pair work. The method aims to increase learners' skill for utilizing previous knowledge, such as strategic competence. Although we demonstrated the effectiveness of pair work, the effective of self-study using MAST on pair work remains unclear. Therefore, this study aims to investigate the necessity of self-study using MAST for pair work. The results indicate that students who conducted sufficient self-study using MAST as preparation followed by pair work could reflect on their speech and consider detailed improvements, that led to an effective experiential learning model.

Keywords: Technology enhanced language learning, speaking skill, strategic competence

1. Introduction

With the advent of globalization, improvement in English-speaking skills is becoming an increasingly crucial issue. In Japan, many learners can only manage simple daily conversations in English despite their basic English skills. For example, a survey conducted by ALC Press Inc. (2016) revealed that even university students with considerable knowledge of the English language can only perform simple daily conversations during speaking tests.

To address this issue, the study proposes pair work that facilitates the use of strategic competence among learners (Celce-Murcia et al., 1995), especially replacement words, adding explanations, and reconstructing concepts to be expressed (hereafter collectively referred to as "self-problem-solving strategies") to increase their skill for utilizing previous knowledge. In the pair work, one of the pair members gives a speech. Both members then reflect on the speech pair in terms of rephrasing to enhance the listeners' comprehension. The task requires them to add more phrases using self-problem-solving strategies to express their intended meaning. Additionally, we proposed the use of the Mobile Application for Summary-speaking Task (MAST), which we developed, as preparation for the pair work. MAST offers several practices that enable learners to grasp content and use appropriate words to construct a summary. It enables learners to focus on syntactic processes for summary speaking and improve grammatical encoding (Nakaya & Murota, 2016). Therefore, learners can concentrate on the vocabulary they need to use in the speech during pair work.

Although we have demonstrated the effectiveness of pair work (Nakaya & Murota, 2019) previously, the effect of self-study using MAST on pair work remains unclear. Therefore, this paper aims to investigate the necessity of self-study using MAST for pair work.

2. Overview of the Learning Method

2.1 Preparation Using MAST

Using MAST, learners read an English article and provide its summary in English. Further, MAST provides a short question-and-answer practice to help learners focus on syntactic processing when delivering the summary. During this practice, MAST poses short questions related to the article's content, for which the learner provides oral responses similar to a pseudo-interactive conversation. By repeating the short question-and-answer practice, learners finally grasp the content of their intended expression and use appropriate words for the summary. Importantly, they can focus on syntactic processing during summary speaking.

This procedure was designed based on Levelt's (1989) production model. When speaking, people conceptualize what they want to say, retrieve the necessary vocabulary from the lexicon, and arrange them in the appropriate word order. MAST aims to help learners focus on syntactic processing by reminding them of what they want to say and the vocabulary they should use through a summary-speaking practice and short question-and-answer practices (for more details, see Nakaya & Murota, 2016).

2.2 Face-to-face Pair Work

The steps of the proposed pair work are as follows. First, a learner gives a summary speech. During the speech, the peer listener draws a picture on the worksheet to demonstrate what has been understood. In the second step, the pair reflects on the speech. They confirm what the listener could and could not understand based on the picture. Subsequently, they discuss and write other phrases on the worksheet using their own knowledge to increase the listener's comprehension of the summary speech. The worksheet aims to motivate learners in reflecting on the speech using self-problem-solving strategies.

In this study, the learners practiced speaking in English through self-study using MAST as preparation for pair work, and in the pair work, they presented summaries and reflected on them. According to Levelt's (1998) model, cognitive load is expected to occur mainly in retrieving necessary words and mainly for grammatical encoding. Preparation using MAST enables learners to improve grammatical encoding such that they can concentrate on retrieving words necessary for the speech in the pair work. As a result, it is expected that reflection during pair work could enable learners to focus not only on fluency related to grammatical encoding but also on self-problem-solving strategies related to word retrieval more effectively.

3. Experiment and Results

We observed an English class that conducted self-study using MAST and face-to-face pair work. Students engaged in self-study using MAST at home for six days. On the seventh day, they did face-to-face pair work in class. Twenty-one undergraduate students practiced English-speaking for four weeks using this method. Before and after the learning period, we conducted pre- and post-tests, which instructed the students to speak in English about their club activities or their majors.

Fifteen students practiced it using MAST at home for two weeks or more, whereas six students practiced for less than two weeks. Therefore, to investigate the effectiveness of preparation using MAST on pair work, we compared the numbers of self-problem-solving strategies used by the students with and without sufficient self-study preparation.

We conducted mixed two-way repeated measures ANOVA (Table 1) and calculated ηG^2 as an effect size. The between-subject factor was *preparation*, which had two levels (i.e., with and without preparation); the within-subject factor was test term, which also had two levels (i.e., pre- and post-tests). The study observed statistically significant differences in both factors and marginal differences in the interaction between them. The post-analysis result demonstrated statistically significant differences between preparation at post-test ($F(1,19) = 6.751$, $p < .05$, $\eta G^2 = 0.262$) and among test terms at preparation using MAST ($F(1,14) = 11.481$, $p < .01$, $\eta G^2 = 0.235$).

According to the results, we concluded that to enhance the effectiveness of pair work, learners should conduct preparation using MAST. This effectiveness indicates that students who conducted English summary speaking through self-study using MAST as preparation may experience Kolb's (1994) experiential learning model. Notably, the students who practiced summary speaking using MAST at home gave a summary speech during pair work using phrases that were used during self-study.

The peer listener frequently failed to understand some phrases or expressions of the speaker's speech, such that the students failed to deliver what they wanted to express (concrete experiences in Kolb's model). Afterward, the speaker and the listener reflected on the speaker's *own* speech and reflected on concrete improvements based on self-problem-solving strategies (reflective observation). Through these activities, the students became aware of the efficacy of using strategies (abstract conceptualization), such that they used them during their speeches in English in the following week's self-study or the pair work (active experimentation).

Table 1. *Mixed Two-way Repeated Measures ANOVA*

Measures	Source	Sum of Squares	DOF	Mean Square	*F*-value	*p*-value	ηG^2
Number of self-problem-solving strategies	Between preparation	33.717	1	33.717	6.243	0.021*	0.199
	Among test terms	8.860	1	8.860	5.058	0.037*	0.061
	Interaction	6.192	1	6.192	3.535	0.076+	0.044

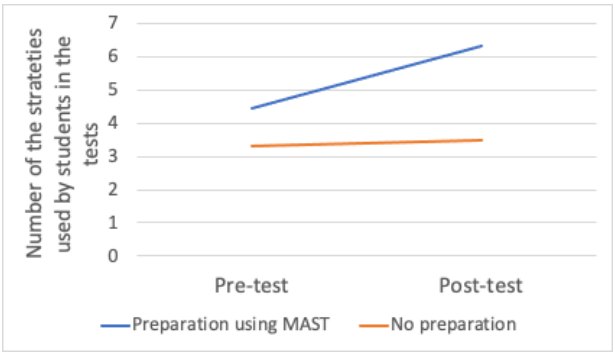

Figure 1. Number of Problem-solving Skills used by Students in the Tests.

4. Conclusion and Future Work

We investigated the effectiveness of summary speaking through self-study using MAST as preparation in face-to-face pair work. Our analysis revealed that self-study using MAST as preparation enables students to reflect on their own speech, which may lead to reflection based on self-problem-solving strategies and increased awareness of the efficacy of such strategies.

We recommend that future studies should improve this method—that is, focus on how to continue self-study using MAST—and investigate its effectiveness in detail using a larger sample.

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