English Instruction Practice for Students of an Early Childhood Education Course: Aiming to Develop Students' Metalinguistic Ability

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Abstract
This study examined the English teaching method's effect on improving metalinguistic ability. Metalinguistic ability refers to the ability to perceive language analytically and to take it as an object of thought. In this study, the author compared the class comment papers of students who took classes designed to improve their metalinguistic abilities (experimental group) with those of students who took conventional classes (control group). The students in both groups majored in early childhood education. The comments were classified into four levels from 0 to 3 in terms of metalinguistic ability level. A χ-square test revealed that the number of comments at metalinguistic ability level 0 was significantly smaller in the experimental group than in the control group, while the number of comments at metalinguistic ability level 1 was significantly higher in the experimental group than in the control group. There were no significant differences in the number of comments at metalinguistic ability levels 2 and 3, but the percentage of the total number of comments at both levels was higher in the experimental group than in the control group. The results showed the present teaching method contributes to the improvement of metalinguistic ability. In particular, it is implied that the situation in which the students had to write some kind of comments in addition to questions gave them an opportunity to think more analytically about the content of the class, which supported the development of metalinguistic ability.

Keywords: Metalinguistic Ability, English Education, Qualitative Analysis

Introduction

Previous studies have shown that metalinguistic ability predicts higher literacy in the first language (Robinson, 2005; Zipke, 2007) and higher performance in the second or a foreign language (Igarashi, 2015; Lasagabaster, 2001; Serrano, 2011). In general, the metalinguistic ability is defined as "the ability to think about and reflect upon the nature and functions of language" (Pratt & Grieve, 1984). What follows is an example of a dialog that gives us a picture of a child's metalinguistic ability, which has been reported in previous literature (Karmiloff-Smith, Grant, Sims, Jones, Cuckle, 1996). This is a dialog between a mother and her 4-year-old child who is acquiring English as his first language.

> Child: *What's that?*
> Mother: *It's a typewriter.*
> Child: *(frowning) No, you're the typewriter, that's a typewrite.*
>
> (Karmiloff-Smith et al., 1996)

This dialog implies his attempt to correct the mother's words, in which we can see an example of a child becoming aware of the meaning of the word suffix -er. In this way, metalinguistic abilities are naturally developed to some extent. We all are equally capable of acquiring a native language as long as we are not abused or handicapped. On the other hand, metalinguistic abilities vary widely from person to person. This has been shown in the author's previous research (e.g., Igarashi, 2016, 2021) and other previous studies (e.g., Caravolas, Hulme, & Snowling, 2001; Falk, Lindqvist, & Bardel, 2015). An educational intervention to develop metalinguistic ability is important in order to reduce individual differences as much as possible.

If metalinguistic ability contributes to literacy and foreign language learning, wouldn't it be better to develop this ability before children enter school if possible? There have been several projects for developing the metalinguistic ability of children (e.g., Igarashi, 2016, 2022). However, there are very few previous works on the metalinguistic development of teachers who support children. While it is important to support the development of metalinguistic ability in early childhood, wouldn't it be also important to develop the metalinguistic ability of the teachers who support children?

Hence, in this study, the author attempted to develop an English teaching method aimed at enhancing pre-service teachers' metalinguistic ability and to examine its effectiveness from a qualitative approach. The author has done "quantitative" studies (Igarashi, 2016, 2022) before, on projects targeting elementary and junior high school students, so this time the author tried taking a new perspective, a "qualitative" approach.

Method

Participants were 20 Japanese college students taking a preschool teacher training course, who were students studying to become kindergarten teachers or nursery school teachers. They were informed in class or by email that their comments and test results will be used in research and that their comments will be published anonymously in a paper. Consent was obtained from each participant. The participants were divided into experimental and control groups and attended English classes for one semester. The experimental group (nine students) attended the intervention class, while the control group (11 students) attended the conventional class. Specifically, the experimental group was given a lecture on language

ambiguity. Then, they were asked to submit brief comment papers for preparation and reflection for each class, and they were instructed to write down what they noticed and thought about as well as their questions. In the control group, the teacher (the present author) instructed them to write any questions they had.

Before the intervention, students took a meta-linguistic ability test to check if there were differences in their original metalinguistic ability between the two groups. The comments submitted by the students were analyzed, which were freely-described comments. The comments were classified into four levels from 0 to 3 in terms of metalinguistic ability level. The author then compared the percentage of comments at each metalinguistic ability level between the groups.

The metalinguistic ability test consists of two parts. The first part is an ambiguity detection part (six items). In this part, a single sentence is presented, which can be interpreted in two different ways. The students were asked to write each of the two meanings. In the intervention class, we discussed the ambiguity of language, because the ambiguity task has been often adopted as a measure of metalinguistic ability in previous studies (Foss, Bever, & Silver, 1968; Hoppe & Kess, 1980; Ojima, Nagai, Taya, Otsu, & Watanabe, 2012), and it is also an interesting language task for learners. The second part is a grammatical relation perception part (six items). The grammatical relation perception task is to find a word in the target sentence that has the same grammatical role as the words in parentheses in the key sentence. The current test was designed on the basis of scales in previous studies (e.g., Carroll & Sappon, 1959; Igarashi, 2021). Test answers and comment papers were collected by Google Forms.

Results

Regarding the pre-test scores of metalinguistic ability, a *t*-test result showed no significant differences between the groups (see Figure 1 & Table 1). A total of 99 comments were obtained for the experimental group and 89 for the control group. The comments were classified by the author and her research assistant. Generally speaking, the metalinguistic ability is gradual and it is difficult to clearly distinguish between levels. However, on the basis of the previous work (Otsu, 2021), the comments were expediently divided into 4 levels. Comments that gave no sign that metalinguistic ability had been exercised were classified as Level 0. Comments that have implied noticing or feeling something about language were classified as Level 1. Comments showing awareness of or reflection on language were classified as Level 2. Comments involving manipulation or control of linguistic expressions were classified as Level 3.

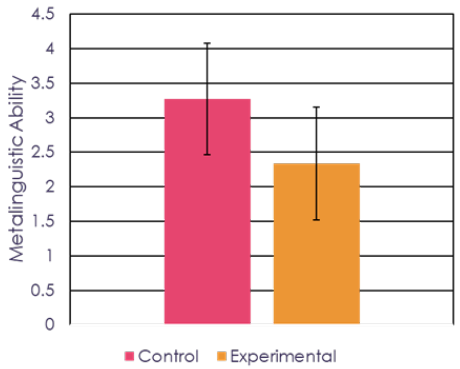

Figure 1: Comparison of the pre-test scores between the experimental group and the control group.

Group	N	Mean	SD	SE	*t*	df	*p*
Control	11	3.273	2.687	0.810	0.817	17.745	.425
Experimental	9	2.333	2.449	0.816			

Table 1: *t*-test results

The results of the classification are presented in Table 2. The inter-rater reliability of the levels was high enough (Cohen's k = .832). Examples of the students' comments are given below. The original comments were written in Japanese. The following examples are English translations of the original comments.

Example of Comments (English Translation)
[Level 0] *Overall, I can't understand.*
[Level 1] *Where does the word "Simon" in "Simon says[1]" come from?*
[Level 2] *I'm wondering what is the difference between "little" and "slightly".*
[Level 3] *I think "unicorn" is better matched to the spelling of "unicone" in semantics. When I looked it up, I found that "corn" comes from "comu" (Latin) meaning "horn".*

	Control	Experimental
Total	89	99
Level 0	△49	▼26
Level 1	▼21	△45
Level 2	14	18
Level 3	5	10

Table 2: Crosstabulation of comment classification results

The results of the χ-square test showed that the number of comments with level 0 (no metalinguistic ability level) was significantly lower in the experimental group than in the control group, and the number of comments with level 1 (slightly higher metalinguistic ability level) was significantly higher in the experimental group than in the control group ($\chi 2(3) = 17.465$, p = .001, Cramer's V = .305). On the other hand, there was no significant difference in the number of Levels 2 and 3 comments. But, as for Levels 2 & 3 comments, the experimental group had a higher percentage of the total number of comments than the control group.

Discussion and Conclusion

The increase in the number of comments at Level 1 shows the effectiveness of the present teaching method. We have two implications here. One is that linguistic lessons dealing with ambiguity may have contributed to the students' improvement of metalinguistic ability. This is consistent with the results of previous studies (e.g., Igarashi, 2016, 2022). The second one is that the situation in which the students had to write not only questions but also what they

[1] "Simon Says" is a game played by children in English-speaking countries. One person takes the role of Simon and gives commands to the rest of the people, such as "Simon says, raise your right hand" or "Simon says, jump up". If one says or does something different from the command, he/she will be disqualified from the game. The textbook used in the class attended by the present participants introduced "Simon says.

noticed and thought about gives them opportunities to think more analytically about the content of the textbook and the classes.

In addition, several attempts to improve the quality of learners' questions and comments have been made in the field of educational psychology. The possible relationship between question quality and metalinguistic ability is intriguing. But this topic is beyond the scope of this study and will be therefore discussed in another paper.

Considering the discussion above, we would like to conclude with the following two points. Firstly, metalinguistic ability can be enhanced by changing the instructions regarding comments on the lessons, in addition to teaching special academic content. Secondly, unlike the previous studies, in which the intervention method was to improve students' metalinguistic skills through intensive special classes, this study successfully improved students' meta-linguistic ability by presenting linguistic topics occasionally in regular English classes and by devising instructions for comment papers. This is a distinctive achievement of this study.

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