

## The Effect of English Learning in Elementary Schools on Students' English Language Skills and Their Affective Variables in Junior High Schools

UEMATSU, Shigeo  
Setsunan University

### Abstract

This study was an investigation of the effect of English Learning in Elementary Schools on both English language skills and affective variables. The participants were 145 public junior high school students in Grades 7 and 8; 72 participants had received English language instruction once a week in local public elementary schools in *tokku* (special educational districts), while the remaining 73 participants had received little English language instruction in their local public elementary schools. The Experienced group outperformed the Non-experienced group to a statistically significant degree on a listening test in Grades 7 and 8, on a speaking test in Grade 7, except for the storytelling task, Grade 8. The Experienced group outperformed the Non-experienced group on vocabulary/grammar and reading tests. Unlike previous research findings, no statistically significant differences were found between the Experienced and the Non-experienced students for the four motivational and attitudinal variables.

**Key words :** early English learning, skills, attitudes, Rasch analysis, *tokku*

### I. INTRODUCTION

In February 2008, a draft plan of the new curriculum guidelines for elementary school was issued (MEXT, 2008). In this plan, English has been officially incorporated in Grades 5 and 6 (35 hours for each grade) under the name of *Gaikokugo katsudo* (Foreign Language Activity). In order to provide educational policy makers, school administrators, and those who are supposed to teach English at elementary schools with valuable information, research into the long-term effects of primary English instruction is urgently needed. Especially, research focused on the subsequent effects of English language learning in the Elementary School (henceforward ELES) in *tokku* is critical. ELES has been taught 35 hours per year in Grades 5 and 6 in public elementary schools in Neyagawa *tokku* since 2005.

In Neyagawa city, the elementary English is called *Kokusai komyunikeishon* (International Communication, henceforth IC) class, which is focused on the development of the students' speaking and listening skills. This course was started from Grade 5 in 2005 and was extended to Grade 1 in 2006. English language curricula and teaching plans used at each elementary school are designed mainly by the Homeroom Teacher (HRT) and Japanese Teacher of English (JTE) with the assistance of the Japanese Assistant Teacher (JAT). These curricula

and plans reflect the objectives and goals of the Neyagawa curriculum.

Assistant Language Teacher (ALT) is called Native English Teacher (NET) in Neyagawa. However, in this study the term ALT is used to avoid any possible confusion. Each ALT is assigned to one junior high school. Each ALT is scheduled to visit two elementary schools in his/her junior high school district five days a month. Five days are divided into two elementary schools.

Elementary schools in Neyagawa are also staffed with JATs. In 2008, fourteen JATs were employed and shared by twenty-four elementary schools. Each JAT was screened in terms of (a) their English teaching background, (b) their English speaking abilities as demonstrated in an English interview, and (c) their enthusiasm to engage in JAT work (Neyagawa, 2007b, p.12). Officially, the JATs are responsible for helping the HRTs teach IC classes to implement the Neyagawa ELES curriculum. They make the yearly English curriculum and lesson plans, and they also develop teaching materials (Neyagawa, 2007b, pp. 11–12).

Neyagawa will likely become one of the models when ELES is officially introduced into all elementary schools in 2011. With that in mind, research on subsequent gains in English proficiency in junior high school will be helpful not only for evaluating current ELES programs, but also for the needed review of junior high school curricula.

However, conducting this kind of research has become even more challenging recently, primarily because of the difficulty of finding schools appropriate for such research purposes. As mentioned above, though English is being taught in almost all elementary schools to some degree, the number of schools in which English is taught under a unified curriculum is limited, and finding schools in which English is not taught, and which can therefore act as controls, is even more difficult.

## **II. LITERATURE REVIEW**

### **1. Linguistic domain**

Research that has been conducted in the Japanese EFL context has shown that the Experienced students usually outperform the Non-experienced students, especially in the early stages of junior high school, in listening (JASTEC, 1988, 2007; Megumi, Yokokawa, & Miura, 1996), speaking (JASTEC, 1986, 1987, 2007), reading (JASTEC, 1988), and overall proficiency (Oller & Nagato, 1974). Long-term effects of ELES appear to exist as differences that are still observable in linguistic domain with high school students (JASTEC, 1986, 1987, 1988; Megumi, Yokokawa, & Miura, 1996; Shizuka, 2007). However, some studies (Shinohara, 1999; Shirahata, 2002; Takada, 2003b) cast doubts on these positive reports.

### **2. Affective domain**

Numerous researchers have also reported the positive effect of ELES on students' subsequent motivational and attitudinal development toward learning English (Hojo & Matsuzaki, 2005; JASTEC, 2007; Kanamori, 2006; Mio & Kitsudo, 2004; Shizuka, 2007; Yatsuka, 2000). However, some studies found no statistically significant differences between the group that studied once or twice a month and the Non-experienced students (NIEPR, 2009; Takada, 2003a; Takagi, 2003).

Takagi (2003) administered a 42-item motivational questionnaire to 753 Experienced students and 204 Non-experienced junior high school students to investigate whether there were any motivational differences observable in ELES Experienced junior high school students in terms of when, where, and how often they learned ELES. She found that there were no statistically significant differences between the group that studied once or twice a month and the Non-experienced students.

A recent study conducted in 53 public elementary schools nation-wide (NIEPR, 2009) reported the tendency — as the grade in school goes up, motivation generally declines, especially in Grade 6 when the ELES classes were offered less than 22 hours a year.

### III. THE STUDY

The study is an investigation of the long-term effectiveness of ELES and an attempt to identify domains most sensitive to early English instruction. This portion of the research is a quantitative study with 145 Japanese public junior high school students. The research questions addressed in the present study are as follows: (1) To what degree do the ELES Experienced students and the Non-Experienced students differ in terms of their English listening, speaking, reading, vocabulary, and grammar skills? (2) To what degree do the ELES Experienced students and the Non-Experienced students differ on the motivational and attitudinal variables?

#### 1. Participants

The participants in this study were 145 students from two junior high schools, School A in Neyagawa city and School B in its vicinity, located in western Japan. Both schools are co-educational public schools offering English instruction four times a week to an approximately equal number of male and female students.

At School A, 35 first-year students and 37 second-year participants were attending the study. The first-year (Grade 7) students experienced 35 hours of ELES instruction in Grades 5 and 6 (70 total contact hours) prior to entering junior high school, while the second-year (Grade 8) students experienced 35 hours of ELES instruction in Grade 6. The participants in School A came from two elementary schools; the curricula at the two schools are supposed to be similar in order to provide a uniform quality of English instruction and avoid any perception of unfairness. English is taught in these elementary schools based on the unified IC curriculum adopted by Neyagawa city (Neyagawa 2007a).

At School B, 37 first-year students and 36 second-year students were attending the study. School B is located close to School A, but in a different prefecture. School B is also situated in a suburb of a major metropolitan area and the students attending the school share almost the same socio-economic and educational background as the students attending School A. School B accepts students from two elementary schools; neither school provided English instruction as an academic subject or English activities, except for occasional activities in which foreigners were invited into the class for an interview. The interviews were usually conducted in Japanese because the guests were mostly non-English speakers.

Since School B permitted me to conduct the research on the condition that the name of the school would not be revealed and the Grade 9 students would not be involved, this study did

not include Grade 9 students.

## **2. Instrumentation**

### **2.1 English Proficiency Test**

The JACE (Junior High School Assessment of Communicative English) battery Level 1 and Level 2 English proficiency tests were administered to the Grade 7 students in February and the Grade 8 students in March 2008. The JACE test (Levels 1–3), which is published by ELPA (Association for English Language Proficiency Assessment), was designed to measure English proficiency of Japanese junior high school students. The test is made up of three subsections: (a) vocabulary and grammar (22 items in 2 sections; maximum 100 points), (b) reading (10 items in 3 sections; 4 items based on pictures, 3 items based on a 105-word letter sent to a friend in Canada, 3 items based on a ski trip advertisement; maximum 100 points), and (c) listening (18 items in 2 sections; maximum 100 points). According to ELPA, the test items are standardized using item response theory. The reliability estimates for the Level 1 and Level 2 test scores are .80 and .81, respectively.

### **2.2 Oral Interview Test**

Each participant took part in a five-minute interview test in March 2008 after finishing the term-end tests. The interview test was made up of three parts: (a) four questions and answers related to the student's self-introduction, (b) four questions and answers based on a picture, and (c) a storytelling task based on the same picture. The same task format with different sets of questions and pictures were used with the Grade 7 and the Grade 8 students. Two of the four conversation questions in part (a), two of the four questions in part (b), and the picture used for tasks (b) and (c) were replaced with more challenging ones for the Grade 8 test. The conversation section was made by referencing the STEP *Eiken* 3rd grade conversation test. The pictures used in the storytelling task were drawn by college students.

Two Japanese university English teachers, including myself, conducted the interviews in different rooms at Schools A and B. All interviews were videotaped. Three raters, including one outside rater, who was a native speaker of English, watched the videotapes and rated the students' performances, according to the calibration table. The evaluation sheet was based on the STEP *Eiken* test rating sheet. The first two tasks (six items) were rated on a 5-point Likert scale (1 = Poor; 2 = Not good; 3 = Acceptable; 4 = Good; 5 = Excellent) in terms of three criteria: (a) Attitudes toward communication and willingness to communicate; (b) Fluency, intonation, rhythm, and pronunciation; and (c) Vocabulary, grammar, and word usage. The questions (four items) in the second task were measured using four criteria: fluency, vocabulary, grammatical usage, and attitude toward to communicating in English.

### **2.3 Motivation and Attitudes Toward Learning English Questionnaire**

The Motivation and Attitudes Toward Learning English Questionnaire was written after an extensive review of the literature on motivation and attitudes toward learning English as a foreign language (Dörnyei, 2001, 2005; Ichikawa, 2001; JASTEC, 2007; MacIntyre et al., 2002; Shizuka 2007; Sparks & Ganschow, 2007). This process led to the creation of 58 items designed to measure ten domains. In order to reduce the number of items and thereby

shorten the amount of time needed to administer the questionnaire, the original questionnaire was piloted with one Grade 7 class ( $N = 37$ ) in School A. The data were analyzed with a Principal Axis factoring with Oblimin Rotation with SPSS 17, since eight of ten factor correlations were above .30.

The questionnaire items were divided into two parts. The first part asked about the participants' basic background information. In the second part of the questionnaire, they were asked to express the degree to which they agreed with 23 attitudinal, motivational-related statements on a 5-point scale (1 = Strongly disagree; 2 = Disagree; 3 = Can't say which; 4 = Agree; 5 = Strongly agree). The items were designed to explore the extent to which the students were ready to make an effort to improve their English proficiency and their wish to envisage themselves as successful English learners in the future.

### 3. Data Analysis

The data analyses procedures were as follows. There are three dependent variables (DVs) for each grade: The first linguistic variable consisted of three JACE battery subtest scores for the vocabulary and grammar, listening comprehension, and reading comprehension subtests. The second linguistic variable is the speaking measure, which is made up of the conversation and storytelling sections. The third dependent variable is the attitudinal and motivational variables. The independent variable is school (Experienced/Non-experienced).

Research question (1), *To what degree do the Grades 7 and 8 tokku and the non-ELES participants differ in terms of their English listening, speaking, reading, vocabulary, and grammar skills?*, was addressed by conducting a series of independent groups *t*-tests using the ELES experience or lack of experience as the independent variable and the JACE test scores and the Rasch person ability measures from the interview test as dependent variables. The Grade 7 and 8 participant data were analyzed separately.

Research question (2), *To what degree do the Grade 7 and 8 tokku group and the non-ELES group differ on attitudinal and motivational variables?*, was addressed by conducting one-way ANOVA with Grade 7 and 8 together using ELES experience or lack of experience as the independent variable and the Rasch person ability estimates for each construct derived from the questionnaire as the dependent variables. Following Tabachnick and Fidell (2006), the assumptions for the set of *t*-tests and one-way ANOVA were checked and the outliers were adjusted.

### 4. Preliminary Analysis

After removing five participants who (a) failed to sit for one or more of the proficiency test components, (b) had lived in an English-speaking country for more than one year, or (c) answered the 23-item questionnaire with a single response (e.g., all 1s), 140 participants (35 Experienced, 35 Non-experienced Grade 7 students and 34 Experienced, 36 Non-experienced Grade 8 students) were retained. The number of male and female participants who had or had not experienced the IC classes is shown in Table 1.



**Table 1. Breakdown of Experienced and Non-experienced Participants by Sex**

Year	Experienced		Non-experienced		Total
	Male	Female	Male	Female	
Grade 7	18	17	17	18	70
Grade 8	17	17	19	17	70
Total	35	34	36	35	140

For the JACE Battery test, normality was checked by inspecting descriptive statistics, histograms, and Q-Q plots; in addition a Shapiro-Wilk test was run to see whether the distribution deviated significantly from a comparable normal distribution (Field, 2005). The z-scores for skewness (SES) and kurtosis (SEK) were checked to determine whether they exceeded an absolute value of 2.58 (significant at  $p < .01$ ), the criterion recommended by Field (2005, p. 72) with small sample sizes.

The interview test data were analyzed using FACETS 3.62 for Windows (Linacre, 2008). Significant variation in harshness was detected among the raters, as the separation index, which indicates the likelihood that raters consistently differ from one another in overall severity, was high (.99) and the chi-square of 143.6 with 2 *df* was statistically significant at  $p = .00$ . This was addressed by the conversion of original scores to Rasch measures.

The result of Principal Axis Factoring for the Motivational and Attitudinal Questionnaire was followed by the Rasch analysis. The purpose of this analysis was to verify the dimensionality of five groups of items and to determine their fit to the Rasch rating scale model. Table 2 shows the 23 questionnaire items that were extracted from the original 58 items. They were hypothesized to measure five factors. Items 8–11 were hypothesized to measure *Reason for Studying English* (RSE), items 12–13 were hypothesized to measure *Attitudes Toward Foreign Language and Culture* (AFLC), items 14–18 were hypothesized to measure *Attitudes Toward English Learning* (AEL), items 19–23 were hypothesized to measure *Respect for Self and Others* (RSO), and items 24–30 were hypothesized to measure *Attitudes Toward Intercultural Communication* (AIC).

**Table 2. The Motivational and Attitudinal Questionnaire Factors and Items**

***Reasons for Studying English (RSE)***

8. I study English because a better command of English will be necessary to succeed in the international community.
9. I study English because if my English is good, that will make favorable impressions on others.
10. I study English because I want to be able to understand English conversations better.
11. I study English because it will be useful for the entrance exams and the job-hunting.

***Attitudes Toward Foreign Language and Culture (AFLC)***

12. I try to be exposed to English culture through TV, films, and the internet.
13. I want to learn more foreign languages other than English.

***Attitudes Toward English Learning (AEL)***

14. I like English classes and English activities.
15. I would like to continue to learn English.
16. I always try to improve my English skill through listening to English conversations and reading English books.
17. I try to guess the meaning of unknown words and expressions in English through the context.
18. I study English harder than other subjects.

***Respect for Self and Others (RSO)***

19. Through learning English, I came to feel I gained the acceptance of others around me.
20. Through learning English, I came to understand the good points of others.
21. Through learning English, I came to understand my own good points.
22. Through learning English, I came to listen to teachers and others in the classroom more carefully.
23. Through learning English, I came to learn to respect others.

***Attitudes Toward Intercultural Communication (AIC)***

24. Through learning English, I came to be interested in Japan and its culture.
25. Through learning English, I came to be interested in foreign countries and their cultures.
26. Through learning English, I'd like to live with foreigners more closely.
27. Through learning English, I came to feel it necessary to understand foreigners' ideas and their cultures.
28. Through learning English, I came to feel it necessary to show foreigners more about Japanese people and their culture.
29. Through learning English, I'd like to have more communication with foreign people.
30. Through learning English, I got a broader point of view of my life.

*Note.* Items 1–7 were biodata questions.

In evaluating the rating scale effectiveness of the five attitudinal and motivational constructs were performed using the six criteria suggested by Linacre (2002). The items generally showed good fit to the Rasch model, as Infit Mean Square and Outfit Mean Square values were between .7 and 1.3 and Infit and Outfit Z-Standardized values were between -2 and +2. Item reliability was consistently good (AIC = .94; AEL = .96; RSO = .88; RSE = .98; AFLC = .93), while the person reliability estimates were somewhat lower (AIC = .83; AEL = .79; RSO = .77; RSE = .61; AFLC = .36). These results indicated that the participants' responses were fairly homogeneous, particularly where the AFLC variable was concerned. No items displayed negative point-measure correlation or values smaller than .40.

The factor, AFLC, was not used in further analyses because it was defined by only two

items and therefore the person reliability estimate was extremely low (.36) and lacking in precision. In addition, six participants endorsed all of the items at the highest level and 12 participants endorsed them at the lowest point on the scale.

#### IV. RESULTS

A summary of the linguistic results for Grades 7 and 8 is provided in Table 3

**Table 3. Summary of the Linguistic Results**

Grade	Skill	Results
7	Listening	The EXs' mean score was higher than that of the NON-EXs; $t(68) = -1.81, p = .07, r = .21$ .
7	Speaking (Conversation)	The EXs outperformed the NON-EXs; $t(68) = -2.53, p = .01, r = .29$ , supporting the research hypothesis.
7	Speaking (Storytelling)	The EXs outperformed the NON-EXs; $t(68) = -2.30, p = .03, r = .26$ , supporting the research hypothesis.
7	Vocabulary and Grammar	The EXs' mean score was higher than that of the NON-EXs; $t(68) = -1.58, p = .12, r = .19$ .
7	Reading	The EXs' mean score was higher than that of the NON-EXs; $t(68) = -.58, p = .59, r = .07$ .
8	Listening	The EXs outperformed the NON-EXs; $t(68) = -2.53, p = .01, r = .29$ , supporting the research hypothesis.
8	Speaking (Conversation)	The EXs outperformed the NON-EXs; $t(68) = -3.47, p = .001, r = .82$ , supporting the research hypothesis.
8	Speaking (Storytelling)	No statistically significant difference between the EXs and the NON-EXs; $t(68) = -.34, p = .74, r = .04$ , though the difference in means was in the hypothesized direction.
8	Vocabulary and Grammar	The EXs' mean score was higher than that of the NON-EXs; $t(68) = -1.68, p = .10, r = .20$ .
8	Reading	The EXs' mean score was higher than that of the NON-EXs; $t(68) = -.21, p = .84, r = .03$ .

*Note.* EX = ELES experiences students; NON-EX = students with no ELES experience. The statistics for speaking are based on Rasch measures.

A summary of the affective results for Grades 7 and 8 is presented in Table 4.



**Table 4. Summary of the Affective Results**

Grade	Construct	Results
7	<i>Attitudes Toward Intercultural Communication</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = .97, p = .33, r = .12$ . The difference in means was not in the hypothesized direction.
7	<i>Attitudes Toward English Learning</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = .37, p = .71, r = .04$ .
7	<i>Respect for Self and Others</i>	No significant difference was found between the EXs and the NON-EXs; $t(68) = 1.79, p = .08, r = .21$ ; the difference in means was not in the hypothesized direction.
7	<i>Reasons for Studying English</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = -.87, p = .39, r = .10$ .
8	<i>Attitudes Toward Intercultural Communication</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = -.76, p = .45, r = .09$ .
8	<i>Attitudes Toward English Learning</i>	No significant difference was found between the EXs and the NON-EXs; $t(68) = 1.01, p = .32, r = .12$ ; the difference in means was not in the hypothesized direction.
8	<i>Respect for Self and Others</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = .51, p = .61, r = .06$ ; the difference in means was not in the hypothesized direction.
8	<i>Reasons for Studying English</i>	No statistically significant difference was found between the EXs and the NON-EXs; $t(68) = .04, p = .97, r = .00$ .

Note. EX = ELES experiences students; NON-EX = students with no ELES experience. The statistics are based on Rasch measures.

## V. DISCUSSION

### 5.1 Linguistic Variables

#### Listening

Considering the Grade 7 listening test results, in which the difference between the Experienced and non-Experienced students was close to being statistically significant, it appears that listening comprehension is affected positively by the ELES curriculum. These results support previous findings showing the positive effect of ELES classes on listening. This effect appears to apply to all levels of schooling. For instance, English proficiency test results from 53 *kenkyu kaihatsu* (research and development) elementary schools indicated that the Grade 6 students who had 35–90 hours of English instruction per year showed large score gains on listening comprehension (NIEPR, 2009).

#### Speaking (Conversation)

When considered in conjunction with the Grades 7 and 8 results, the ELES curriculum clearly exerts a strong positive effect on the students' speaking skills. These results support previous findings concerning the positive effect of ELES on speaking skills, especially in the early stages of junior high school (JASTEC, 1986, 1987, 2007; Matsukawa, 1997; Shinohara,

1999).

### **Speaking (Storytelling)**

In contrast to the Grade 7 results, there was no statistically significant difference between the Grade 8 Experienced students and the Non-Experienced students ( $p = .74$ ). One possible explanation for this result is that the picture used for the Grade 8 students was too difficult, while the one used to test the Grade 7 students was appropriate for their proficiency level.

### **Vocabulary and Grammar**

Although no statistically significant difference for either the Grade 7 or Grade 8 participants, the difference in means was close to reaching statistical significance. A larger sample size would increase statistical power and this could result in statistically significant differences. In observing IC classes at the two elementary schools that participated in this study, I found that ELES teachers were showing pictures with spelling and teaching the students how to pronounce them. This could facilitate students' acquisition of the relationship between English orthography and the phonological representation of letters and words.

### **Reading**

There was no statistically significant difference between the Grade 7 and Grade 8 Experienced and Non-experienced students' reading skills. However, with a larger sample size and the resulting increased statistical power, the Grade 7 results might have been statistically significant.

## **5.2 Affective Variables**

### **Attitudes Toward Intercultural Communication**

A possible explanation of these results is that the Non-Experienced students at School B, and especially the Grade 7 students, might have felt closer to non-Japanese individuals and their cultures as a result of engaging in activities and events like meeting local foreign residents and cooking ethnic foods with them in their international understanding classes.

### **Attitudes Toward English Learning**

The results show that the Grade 7 and Grade 8 Experienced students have less favorable attitudes toward English learning than the Non-Experienced students in junior high school. A possible explanation for these results is that for the Experienced students' English classes were more hands-on and enjoyable during their elementary school years, and that this led to a sense of disappointment or dissatisfaction when they encountered traditional, teacher-centered grammar-translations English classes in junior high school.

### **Respect for Self and Others**

The results indicate that the ELES classes do not always foster respect for self and others. In Grade 7, the Experienced students' responses were far more negative than their counterparts'. In Grade 8, this tendency was still observable, but the difference converged to a degree. It is possible that if teachers emphasize the acquisition of English skills in junior

high schools, students might become more competitive. English for them may become simply another academic subject, instead of a way to broaden their perspectives in seeing the good points in others or finding positive aspects in themselves.

### Reasons for Studying English

Both the Grade 7 and Grade 8 Experienced students answered more positively than the Non-Experienced students only for this construct, though not to a statistically significant level. The questionnaire items measuring *Reasons for Studying English* are mostly related to instrumental motivation (See Table 2); thus, it is possible that the Experienced students have more specific and practical reasons for studying English, such as becoming successful in the international community, making a good impression on others, getting a good job, and being successful on entrance examinations.

## VI. CONCLUSION

This study resulted in four main findings, although it may be difficult to make a generalization directly from those findings. For Research question (1), *To what degree do the Grades 7 and 8 tokku and the non-ELES participants differ in terms of their English listening, speaking, reading, vocabulary, and grammar skills?*

1. The ELES Experienced students outperformed the Non-Experienced students to a statistically significant level in listening in Grade 8, while the difference was close to reaching statistical significance for the Grade 7 students,  $t(68) = -1.81$ ,  $p = .07$ ,  $r = .21$ . The Grade 7 and 8 Experienced students also outperformed their counterparts to a statistically significant level on the conversation task, and the Grade 7 Experienced students outperformed the Non-experienced students on the storytelling task.

2. The ELES Experienced students' mean scores were higher than those of the Non-Experienced students on the vocabulary/grammar and the reading tests. The differences were close to reaching statistical significance for the Grade 7 and 8 vocabulary/grammar test results (See Table 3).

For Research question (2), *To what degree do the Grade 7 and 8 tokku group and the non-ELES group differ on attitudinal and motivational variables?*

3. Unlike previous findings regarding the subsequent effects of ELES classes, no statistically significant difference were found for the motivational and attitudinal questionnaire results in both Grades 7 and 8 between the Experienced and Non-Experienced students.

4. In Grade seven, the Non-Experienced students outperformed the Experienced students on some motivational and attitudinal constructs.

The first finding broadly confirmed the results of previous studies that have been conducted in the Japanese EFL context in which ELES exerted a positive impact on listening (JASTEC, 1988, 2007; Kanamori, 2006; Megumi et al., 1996; Shizuka, 2007), and on speaking (JASTEC, 1986, 1987, 2007; Kanamori, 2006; Matsukawa, 1997).

The second finding listed above is reported for the first time in this study, though the advantage of the Experienced students in reading was partially found in a study conducted at a private school where students studied English two hours a week from Grade 1 through Grade 4, and three hours per week in Grades 5 and 6 (JASTEC, 1988). The advantage of the

ELES Experienced students over the Non-Experienced students in vocabulary and grammar has not been previously reported except in a small study conducted at a private English school, comparing the age of onset advantage (JASTEC, 1993).

The third finding was contrary to conventional findings in which it has been asserted that ELES experienced students have higher motivation for studying English; however, these data were often obtained from students at special schools (e.g. twelve or nine year combined private schools or special English schools) and the questionnaires were designed and analyzed in relatively unsophisticated ways that likely reduced their validity and/or reliability. A recent study conducted in 53 public elementary schools nation-wide (NIEPR, 2009) revealed the same tendency - as the grade in school goes up, motivation declines.

The fourth finding indicates that motivational and attitudinal variables can be strongly affected by the way that ELES is introduced. The difference can emerge depending on whether the class is introduced as an international understanding activity (in this sense, it is not actually ELES) or as English skill instruction activities. The latter might be perceived negatively by some students who are as young as 10 or 12, and this negative impact might linger into their junior high school years. Hence, more coordination should be encouraged between elementary schools and junior high schools.

Future researchers should consider the triangulation of data sources. The use of multiple approaches for data collection can reduce the risks of making incorrect generalization (Davis, 1995, p. 447) based on limited information.

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## REFERENCES

- Davis, A. K. (1995). Qualitative theory and methods in applied linguistic research. *TESOL Quarterly* 29(3), 427–454.
- Dörnyei, Z. (2001). *Teaching and researching motivation*. Harlow: Pearson Education.
- Dörnyei, Z. (2005). *The psychology of the language learner*. Mahwah, NJ: Erlbaum.
- Field, A. (2005). *Discovering statistics using SPSS* (2<sup>nd</sup> ed.). London: Sage.
- Hojo, R., & Matsuzaki, K. (2005). Kouritsu shougakkou ni okeru eigo katsudo ni kansuru ishiki chosa. [An analysis of questionnaire on ELES at public elementary schools]. *JASTEC Journal*, 24, 71–92.
- Ichikawa, S. (2001). *Manabu iyoku no shinri gaku*. [A psychology of the willingness to study]. PHP Shinsho
- JASTEC Project Team (1986). Soki eigo gakushusha no tsuiseki chousa: Dai ippou [A study on the effects of early English learning: Report I]. *JASTEC Journal*, 5, 48–67.
- JASTEC Project Team (1987). Soki eigo gakushusha no tsuiseki chousa: Dai ni hou [A study on the effects of early English learning: Report II]. *JASTEC Journal*, 6, 3–20.
- JASTEC Project Team (1988). Soki eigo gakushusha no tsuiseki chousa: Dai san pou [A study on the effects of early English learning: Report III]. *JASTEC Journal*, 7, 43–63.
- JASTEC Project Team (1993). Gakushu kaishi nenrei ga gengo shutoku ni oyobosu eikyo: Dai

- yon hou. [A study investigating the effect of the age of onset on the language learning: Report IV]. *JASTEC Journal*, 12, 27–37.
- JASTEC Kansai Project Team (2007). Shougakko eigo gakushu keikensha no tsuiseki chosa to shouchugakkou eigo kyouiku eno shisa [A follow-up study of ELES experienced students and its implication on the future English instruction at elementary school and junior high school]. *Kinki University Language Education Bulletin*, 7(2), 123–180.
- Kanamori, T. (2006). Shougakusei izen no eigogakushu keiken no eikyo. [The effect of English learning experience prior to the JHS]. *GTEC 2006 Report*, 48–60.
- Linacre, J. M. (2002). Optimizing rating scale category effectiveness. *Journal of Applied Measurement*, 3, 85–106.
- Linacre, J. M. (2008). *WINSTEPS: Rasch-model computer programs, version 3.64*. Chicago: Winsteps.com.
- MacIntyre, P. D., Baker, S. C., Clement, R., & Donovan, L. A. (2002). Sex and age effects on willingness to communicate, anxiety, perceived competence, and L2 motivation among junior high school French immersion students. *Language Learning*, 52, 537–564.
- Matsukawa, R. (1997). *Shogakko ni eigo ga yatte kita*. [English visits elementary schools]. Tokyo: Apurikotto.
- Megumi, T., Yokokawa, H., & Miura, I. (1996). Soki eigo keikensha no chukou ni okeru seiseki [High school grades in early learners of English]. *JASTEC Journal*, 15, 27–35.
- MEXT (2008). *Shougakko Gakushu Shido Yoryo Kaisetsu: Gaikokugo Katsudo Hen*. [Curriculum guidelines for elementary school: Foreign language]. Tokyo: Toyokan.
- Mio, H., & Kitsudo, H. (2004). Ikutsu shougakko ni okeru eigo no kouka ni kansuru chousa. [Research on the effectiveness of English instruction at Ikutsu elementary school]. *JASTEC Journal*, 23, 77–92.
- Neyagawa. (2007a). *Neyagawashi Kyoiku Iinkai Eigo Tokku Happyo Kai*. [The city board of education announcement for English tokku workshop] Retrieved August 30, 2009 from <http://www.city.neyagawa.osaka.jp/index/soshiki/kyouiku-sidou/eigohappyo.html>
- Neyagawa. (2007b). *Kokoro ga Hiraku, Kokoro ga Ugoku Kokusai Komyunikeishon Ka. Neyagawa-shi Shochu Gakko Eigo Kyoiku Tokku Kenkyu Happyokai Shiryo*. [Hop, Step, English; Brochure for Neyagawa City English Education Forum 2007]. Neyagawa City Board of Education.
- NIEPR. (2009). *Shogakko ni okeru eigo kyoiku no arikata ni kansuru chousa kenkyu: kenkyu hokoku kai siryo*. [A Research investigating the ideal nature of English education at elementary school: A summary report]. National Institute for English Policy Research
- Oller, J., & Nagato (1974). The long-term effects of FLES: An experiment. *Modern Language Journal*, 58, 15–19.
- Shinohara, Y. (1999). Souki eigo kyouiku ga hatsuon ni oyobosu koka nit suite. [A study of the effect of ELES on the pronunciation]. *JASTEC Journal*, 18, 1–22.
- Shirahata, T. (2002). Kenkyu kaihatsukou de eigo ni sesshita jidou no eigo nouryoku chosa. [A research investigating English proficiency of the students who were exposed to English at a kenkyu elementary school]. *Educational Bulletin*, 33, 195–215, Shizuoka University.
- Shizuka, T. (2007). Effects of learning English in elementary school days on the proficiency of, and the attitude toward, the language in high school years. *JACET Journal*, 45, 31–45.



- Sparks, R., & Ganschow, L. (2007). Aptitude for learning a foreign language. *Annual Review of Applied Linguistics*, 21, 90–111.
- Tabachnick, B., & Fidell, L. (2006). *Experimental designs using ANOVA*. New York: Duxbury.
- Takada, T. (2003a). Learner characteristics of early starters and late starters of English language learning: anxiety, motivation, and aptitude. *JALT Journal*, 25, 1, 5–30.
- Takada, T. (2003b). Souki eigo kyouiku keikensha to mikeikensha no chukangengo no bunseki. [An analysis of interlanguage of those who have experienced English learning at elementary schools and those who did not.] *STEP Bulletin*, 15, 159–170.
- Takagi, A. (2003) The effects of language instruction at an early stage on junior high school, high school, and university students' motivation. *Annual Review of English Language Education in Japan*, 14, 81–89.
- Yatsuka, N. (2000). Souki eigo kyouiku ga onsoshikibetsu nouryoku to eigo gakushu ni taisuru taido ni oyobosu eikyo. [Effects of early English learning on phoneme perception and attitude to learning English by Japanese high school and college students]. *JASTEC Journal*, 19, 73–85