The Effects of Language Instruction at an Early Stage on Junior High School, High School, and University Students' Motivation towards Learning English

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Abstract

The purpose of this study is to investigate to what extent learning English at an early stage can influence junior high school, high school, and university students’ motivation and attitudes towards learning English. The questionnaire was given to 1610 Japanese students, and the data were analyzed using factor analysis. Subsequently, the average factor scores between students who had learned English in early childhood and those who had not were compared. The results showed that language instruction at an early stage has some influence on junior high school students’ motivation towards learning English. Especially, there was a remarkable impact on instrumental motivation. However, the motivation of high school and university student was not influenced very much. The results indicate that it is doubtful that English instruction in public elementary schools can be as influential on affective aspects of Japanese students as the Ministry of Education, Culture, Sports, and Technology expects.

1. Introduction

Since the Ministry of Education, Culture, Sports, Science, and Technology introduced the “Period of Integrated Study” in April 2002, ‘English Activities’ in Japanese public elementary schools have attracted considerable attention. Of the 24,000 elementary schools in Japan, 40% had already introduced ‘English Activities’ into their curriculum by April 2002, and the number of schools introducing ‘English Activities’ will increase (Adachi, 2002). ‘English Activities’ are usually conducted only once a week, 20 to 30 times a year on average. According to the Ministry of Education, Culture, Sports, Science, and Technology, the primary purpose of the activities is “to foster interest and desire—not to teach a language” (Practical Handbook for Elementary School English Activities, 2001, p.123). In other words, it is expected that ‘English Activities’ will be helpful in nurturing students’ positive attitudes and interest
towards communicating in English and understanding other cultures, rather than being a means of acquiring a language skill.

The effects of English learning at an early stage have already been investigated in terms of language proficiency in Japan. A great deal of research has concluded that starting to learn English at an early stage is effective in cultivating learners’ four skills, especially oral skills. However, few studies have investigated the relationship between early childhood English education, and attitudes and motivation towards learning English and understanding the culture of English-speaking countries from the viewpoint of social psychology. Taking the above issue into consideration, the present study investigates to what extent experience of learning English at an early stage influences Japanese junior high school, high school, and university students’ attitudes and motivation towards learning English.

2. Motivation Studies in Japan

As well as in the ESL context, a considerable number of studies have been conducted in Japan (e.g., Komura & Noda, 1987; Malcom, 1991; Takanashi, 1991; Matsukawa & Tachibana, 1996), but many of them employed Gardner’s approach (see Gardner & Lambert 1972; Gardner, 1985) and investigated whether or not it is applicable in a Japanese context. In the EFL context, researchers started to claim that motivational structure should be explored using a broader perspective, adding integrative motivation theories of general psychology as well as employing a context-specific approach (e.g. Dörnyei, 1990; Oxford and Shearin, 1994). Taking this into consideration, more motivational studies utilizing other approaches have been conducted also in Japan by various researchers (e.g. Kimura, Nakata, & Okumura, 2001; Ogane & Sakamoto, 1999; Takagi, 2001; Yashima, 2002). As for the relationship between motivation and English learning experience at an early stage, little research has been conducted. The JASTEC Project Team (1994) gave questionnaires to 1417 Japanese students, ranging from junior high school students to university students, to investigate differences in motivation and attitudes toward studying English between learners who had experienced learning English and those who had not. Overall, the results of the questionnaire showed that the former had more positive attitudes towards communication with people from overseas and towards accepting other cultures. Although the study showed a general tendency to improved motivation and attitudes towards learning the language, the age of the subjects seemed too diverse. Sato (1999) conducted a survey, using 166 university students, investigating the effects of English learning at an early stage on attitudes towards learning English. The results revealed that students who had learned English in their childhood showed less positive attitudes towards English classes at university because they felt the classes were ineffective in helping to acquire skills for real communication.

3. Research Questions

Although some research has been conducted in the Japanese EFL context to investigate Japanese
students' motivation toward learning English, there has been little study on how early childhood experience of learning English influences junior high school, high school, and university students' motivation. Thus the present study focused on exactly this question, going on to consider what aspects of motivation, if any, were subject to this early learning influence. The following two research questions were addressed:

1. Are there any differences in motivation in learning English between students who have learned English before entering junior high school and students who have not?
2. Comparing junior high school, high school, and university students, are there any differences in motivation caused by their early childhood language instruction?

4. Methods

4.1. Participants

1610 Japanese students participated in the study in total. 957 were junior high school students from three public schools. They consisted of 284 first-year students, 356 second-year students, and 317 third-year students. 333 were high school students (freshmen and sophomores) from one public, and four private high schools. 320 participants were students from two universities, one private and one public. None of the students were English-related majors. Students who had lived overseas for more than six months were excluded from the analysis.

4.2. Materials

The material used in the study was a questionnaire in two parts. The first part consisted of questions regarding English learning experience before entering junior high school. The second part consisted of 42 questions to measure students' motivation and attitudes toward learning a language. Questions in this section were either modified or newly added, based on several published studies of language learning. (Kimura, Nakata & Okumura, 2001; Ogane & Sakamoto, 1999; Schmidt, Boraie & Kassabgy, 1996; Takagi, 2001). The questions included five items on Instrumental Motivation (2, 10, 21, 23, 42), five on Integrative Motivation (3, 12, 14, 19, 35), five on Intrinsic Motivation (9, 26, 29, 21, 38), five on Extrinsic Motivation (4, 7, 8, 16, 36), six on Efforts (6, 11, 22, 24, 30, 37), four on Attitudes towards the Anglo-Saxon World (1, 28, 32, 40), five on Anxiety (5, 17, 20, 33, 41), and seven on Expectancy (13, 15, 18, 25, 27, 34, 39) (See Appendix). Students were asked to what extent they agreed or disagreed with the statement using 5-point Likert-type scales ranging from 'strongly disagree' to 'strongly agree'.

4.3. Procedure and data analysis

The data collection procedure took place from October 2001 to April 2002. The questionnaire was administered during regular class sessions by several teachers. The purpose of the study was explained to the students and they were asked to give their immediate reactions to the questions. To ensure confidentiality, they were not required to write their names. The questionnaire was originally written in
Japanese. On completion of data collection, the data was analyzed in three phases. In the first phase, data was assembled regarding experience, duration, and location of learning English. In the second phase, a factor analysis was performed to delineate clusters that would define orientations in this particular context. Forty-two questions were put through a correlation matrix, factor extraction, and rotation procedures. After factors were extracted, based on the result of section 1, a 1-tailed t-test was performed with the factor scores as dependent variables. The purpose of this was to investigate whether there were any differences in motivation towards learning English between students who had learned English in early childhood and students who had not. As for junior high school students, the students who had learned English only at elementary school were compared with students who had not.

5. Results and Discussion

5.1. The results of experience of early childhood English learning

Table 1: The number of students who had learned English in early childhood and those who had not

<table>
<thead>
<tr>
<th></th>
<th>JHS1</th>
<th>JHS2</th>
<th>JHS3</th>
<th>HS</th>
<th>University</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>123</td>
<td>139</td>
<td>105</td>
<td>104</td>
<td>94</td>
<td>565</td>
</tr>
<tr>
<td>Women</td>
<td>119</td>
<td>128</td>
<td>139</td>
<td>101</td>
<td>46</td>
<td>533</td>
</tr>
<tr>
<td>Non-Experienced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>24</td>
<td>55</td>
<td>46</td>
<td>63</td>
<td>128</td>
<td>316</td>
</tr>
<tr>
<td>Women</td>
<td>18</td>
<td>34</td>
<td>27</td>
<td>65</td>
<td>52</td>
<td>196</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>356</td>
<td>317</td>
<td>333</td>
<td>320</td>
<td>1610</td>
</tr>
</tbody>
</table>

Table 1 shows the number of the students who had learned English in early childhood and those who had not. Many of the high school and university students had learned English at an English conversation school or a cram school, while junior high school students had learned in an elementary school, an English conversation school, or a cram school. The average frequency of learning English was once a week.

5.2. The results of factor analysis

First, the mean scores and standard deviations of the forty-two questions were calculated for each group - junior high school, high school, and university students respectively. As a result, the right-skewed items in the junior high school students group 13 and 15, and items 13, 15, 21, 32, 36 in high school students group were eliminated for further analysis. Then, the data in the second part of the questionnaire were analyzed in order to delineate clusters that would define orientations. Through a correlation matrix, factor extraction, and rotation procedures, factors for the junior high school (JHS group), high school (HS group), and university students (U group) were extracted using a figure greater than .45 as a criterion of factor salience. Seven factors accounted for 52.97% in the JSH group, seven factors for 55.98% in the HS group, and six factors for 46.50% in the U group. Seven factors in the JHS group consisted of F1 labeled Positive Attitude towards Learning English (items 38, 27, 9, 26, 30, 11, 19, 37, 42, 2), F2 labeled Integrative Motivation (items 12, 14, 35, 3), F3 labeled Instrumental Motivation (items 10, 36, 23, 8), F4
labeled English Learning Anxiety in the Class (items 33, 41, 20, 17, 18), F5 labeled Positive Attitude towards Anglo-Saxon Culture (items 28, 32, 40, 1), F6 labeled Expectation towards the Class (items 34, 39), and F7 labeled Necessity (items 7, 6). Seven factors in the HS group consisted of F1 labeled Intrinsic Motivation (items 38, 26, 9, 27, 30, 2, 42, 11, 16, 31), F2 labeled Integrative Motivation (items 12, 35, 3, 14), F3 labeled Positive attitude towards Anglo-Saxon Culture (items 28, 1, 40, 29), F4 English Learning Anxiety in the Class (items 33, 20, 41, 17), F5 labeled Expectation towards the Class (items 25, 39, 34), F6 labeled Instrumental Motivation (items 10, 7, 23), and F7 labeled Positive Attitudes towards Communication with Native Speakers of English (items 24, 19). Six factors in the U group consisted of F1 labeled Integrative-Intrinsic Motivation (items 12, 19, 11, 35, 42, 9, 3, 30, 14, 22, 37, 26, 24, 2, 27), F2 labeled Necessity (items 36, 16, 7, 5, 10), F3 labeled English Learning Anxiety in the Class (items 20, 41, 18, 17, 33), F4 labeled Instrumental Motivation (items 23, 4, 8), F5 labeled Efforts for Learning English (items 13, 15, 6), and F6 labeled Positive Attitude towards Anglo-Saxon Culture (items 28, 1, 40).

5.3. The comparison of average factor scores between the students who had learned English in early childhood and students who had not

Tables 2, 3, and 4 show the differences of average factor scores between students who had learned English in early childhood and students who had not, and also students who had learned English only at elementary school and students who had not. The most prominent result is Factor 3. In all grades, experienced students had more Instrumental Motivation than non-experienced. As for first and second year students, students who had experience of learning English only at a school had more Instrumental Motivation. Another interesting result is Factor 1. Experienced third-year students had more positive attitudes towards learning English. On the other hand, first and second year students who had experience of learning English only at school had less positive attitudes towards learning English than non-experienced students. In other words, these students lost interest by the time they entered junior high school. Let’s look at another factor. Experienced first-year students felt they didn’t need to prepare for classes and didn’t feel any obligation to learn English as a required subject (see Factor 7 in Table 2). This indicates that such students can easily keep up with English classes without any preparation for the class since they already have a basic knowledge of English. This is an advantage for students who have learned English in early childhood. There are other advantages of learning English in early childhood, for example, second-year experienced students have less anxiety in the classroom (see Factor 4 in Table 3), and third-year experienced students have more positive attitudes towards Anglo-Saxon cultures compared with non-experienced students (see Factor 5 in Table 4). These results imply that experienced students are more confident about learning English.

Table 2: Comparison of first year junior high school students

<table>
<thead>
<tr>
<th></th>
<th>Experienced (N=242)</th>
<th>Experienced only at school (N=83)</th>
<th>Non-Experienced (N=42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
</tbody>
</table>

85
Table 3: Comparison of second year junior high school students

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experienced (N=267)</th>
<th>Experienced only at school (N=59)</th>
<th>Non-Experienced (N=89)</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>0.091 (0.977)</td>
<td>0.291 (0.900)</td>
<td>-0.033 (0.929)</td>
<td>1.06</td>
</tr>
<tr>
<td>F2</td>
<td>0.035 (0.910)</td>
<td>0.123 (0.824)</td>
<td>-0.063 (0.891)</td>
<td>1.28</td>
</tr>
<tr>
<td>F3</td>
<td>-0.066 (0.906)</td>
<td>-0.465 (0.696)</td>
<td>-0.351 (1.003)</td>
<td>0.75</td>
</tr>
<tr>
<td>F4</td>
<td>-0.017 (0.976)</td>
<td>0.194 (0.910)</td>
<td>0.341 (1.009)</td>
<td>-2.97**</td>
</tr>
<tr>
<td>F5</td>
<td>0.115 (0.970)</td>
<td>0.115 (0.970)</td>
<td>0.074 (1.057)</td>
<td>0.23</td>
</tr>
<tr>
<td>F6</td>
<td>0.055 (0.901)</td>
<td>0.254 (0.862)</td>
<td>0.229 (1.004)</td>
<td>-1.53</td>
</tr>
<tr>
<td>F7</td>
<td>0.052 (1.014)</td>
<td>0.221 (0.837)</td>
<td>0.080 (0.806)</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Table 4: Comparison of third year junior high school students

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experienced (N=244)</th>
<th>Experienced only at school (N=61)</th>
<th>Non-Experienced (N=73)</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>0.012 (1.009)</td>
<td>-0.368 (0.841)</td>
<td>-0.369 (0.994)</td>
<td>2.84**</td>
</tr>
<tr>
<td>F2</td>
<td>-0.015 (1.069)</td>
<td>0.016 (1.283)</td>
<td>-0.041 (0.996)</td>
<td>0.19</td>
</tr>
<tr>
<td>F3</td>
<td>0.153 (0.965)</td>
<td></td>
<td>-0.380 (1.035)</td>
<td>4.14***</td>
</tr>
</tbody>
</table>
Table 5: Comparison of high school students

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experienced (N=205)</th>
<th>Non-Experienced (N=128)</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>0.022 (0.991)</td>
<td>-0.036 (1.020)</td>
<td>0.525</td>
</tr>
<tr>
<td>F2</td>
<td>-0.033 (0.980)</td>
<td>0.053 (1.035)</td>
<td>-0.770</td>
</tr>
<tr>
<td>F3</td>
<td>-0.007 (0.992)</td>
<td>0.053 (1.035)</td>
<td>-0.770</td>
</tr>
<tr>
<td>F4</td>
<td>-0.033 (0.983)</td>
<td>0.053 (1.031)</td>
<td>-0.764</td>
</tr>
<tr>
<td>F5</td>
<td>-0.004 (1.061)</td>
<td>0.007 (0.900)</td>
<td>-0.105</td>
</tr>
<tr>
<td>F6</td>
<td>0.063 (0.989)</td>
<td>-0.101 (1.016)</td>
<td>1.467</td>
</tr>
<tr>
<td>F7</td>
<td><strong>0.111 (0.990)</strong></td>
<td><strong>-0.178 (0.997)</strong></td>
<td><strong>2.585</strong></td>
</tr>
</tbody>
</table>

Table 5 shows the differences of average factor scores between experienced and non-experienced high school students. According to the results, there is a difference only in Factor 7. This means that experienced high school students have more positive attitudes towards communicating with people who speak English.

Table 6: Comparison of university students

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experienced (N=140)</th>
<th>Non-Experienced (N=180)</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>0.051 (0.010)</td>
<td>-0.040 (0.995)</td>
<td>0.799</td>
</tr>
<tr>
<td>F2</td>
<td>-0.016 (1.104)</td>
<td>0.013 (0.916)</td>
<td>-0.256</td>
</tr>
<tr>
<td>F3</td>
<td>0.015 (1.036)</td>
<td>-0.011 (0.976)</td>
<td>0.236</td>
</tr>
<tr>
<td>F4</td>
<td>-0.085 (1.011)</td>
<td>0.067 (0.991)</td>
<td>-1.346</td>
</tr>
<tr>
<td>F5</td>
<td>-0.004 (0.963)</td>
<td>0.035 (1.032)</td>
<td>-0.715</td>
</tr>
<tr>
<td>F6</td>
<td>-0.016 (1.047)</td>
<td>0.013 (0.967)</td>
<td>-0.252</td>
</tr>
</tbody>
</table>

As shown in Table 6, no factor was significant at the 0.05 level. This indicates that experience of learning English in early childhood does not have a great impact on university students' motivation and attitudes towards learning English. In other words, even if there are differences in motivation at junior high school or high school level, the differences do not persist to university level. One of the reasons to be considered is that various factors may influence students' motivation up until they enter university, and
6. Conclusion

The results of the present study indicate that English education at an early stage does have some impact on motivation and attitudes of junior high school students towards learning English, while it does not have any particular impact on high school and university students. Since many of the subjects in this study learned English outside school when they were children, we cannot confirm that the study findings are applicable to students who learn English in a public elementary school. Nevertheless, the effectiveness of English education in public elementary schools is questionable. In other words, English instruction in public elementary schools may not be as influential to affective aspects of Japanese students as the Ministry of Education, Culture, Sports, and Technology expects. In order to increase the effectiveness of the present English educational system in Japan, we should conduct more research on the effects of the instruction employing various research methods such as classroom-based and qualitative research.

Note

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[The role of integrative and instrumental motivation in learning English]. *Fukuoka Daigaku Kiyou*, 40, 53-60.


**Appendix 42-item Motivation Questionnaire**

**Instrumental Motivation**

2. The reason I am learning English is that my future job will require English skills.

10. I learn English because it is necessary to get good grades and qualifications for my future studies and job.

21. I want to learn English because it is useful when traveling in many countries.

23. If I learn better English, I will be able to get a better job in the future.

42. I want to learn English because I want to study abroad in the future.

**Integrative Motivation**

3. I learn English because I want to understand Western thought and religion.

12. I learn English because it is necessary to understand and study foreign cultures, history, and art.

14. I learn English because it is necessary for the introduction of scientific technology.

19. I learn English because I can make friends with foreign people.

35. I learn English because I would like to understand other cultures in English.
Intrinsic Motivation (Attitudes towards Learning Languages)
9. Learning English is my hobby.
26. I feel satisfaction when I am learning English.
29. English is important to broaden my outlook.
31. I don’t like learning English, but I study it because I need it.
38. I enjoy learning English very much.

Attitudes toward the Anglo-Saxon World
1. American and English cultures play an important role in the world.
28. America and Britain are exciting countries.
32. The Americans and British are friendly people.
40. Most of my favorite movies and music are either American or British.

Extrinsic Motivation
4. Everybody should be able to speak English because it is an international language.
7. I learn English because it is a required subject.
8. English proficiency is necessary to become an educated person.
16. I feel learning English is a burden.
36. I learn English to pass the entrance examination.

Anxiety
5. I often have difficulty concentrating in English class.
17. I feel uncomfortable if I have to speak English in my English class.
20. I am afraid other students will laugh at me when I speak English.
33. I don’t like to speak often in English class because I care about what my classmates think about me.
41. It embarrasses me to volunteer answers in my English class.

Efforts (Motivational Strength)
6. I prepare for English classes.
11. I look for as many opportunities to use English as I can.
22. I try to learn English not only in the classroom but also outside the classroom.
24. I practice English whenever I have an opportunity to speak it with a native English speaker.
30. I would like to learn English as long as possible in the future.
37. I make an effort to use English in daily life.

Expectancy (Attribution)
13. If I receive a poor grade in English class, it will be because I haven’t studied enough.
15. If I do well in this class, it will be because I make an effort.
18. If I don’t do well in this class, it will be because I don’t have much ability at learning English.
25. If I receive a poor grade in English, it is due to the quality of teaching.
27. I expect to do well in this class because I am good at learning English.
34. If I learn a lot in English class, it will be because of the teacher.
39. This English class will help me improve my English.

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