

The Effect of Elementary School English Education on Korean High School Students' English Abilities*

Oryang Kwon

(Seoul National University)

Kwon, Oryang. (2005). The effect of elementary school English education on Korean high school students' English abilities. *English Teaching*, 60(3), 49-66.

Since the introduction of English education into Korean elementary schools, attempts have been made to assess the efficacy of teaching the English language in elementary school (ELES) through questionnaire surveys with students and teachers. However, no large-scale comparative research has been conducted in Korea to objectively measure the long-term gains obtained by ELES. The present study investigated the language abilities of the first ELES group in their first year of high school, comparing their scores with the scores of the same graders a year before (who were the non-ELES group). The participants were 5,133 high school students in 2003 and 4,188 students in 2004. A standardized test, called GTEC for STUDENTS, was administered in 2003 and 2004 to 10th and 11th graders. The result showed that the 10th grade ELES Group in 2004 outperformed the non-ELES groups, i.e., the 10th graders in 2003, and the 11th graders in 2004. The result demonstrated that elementary school English has a positive long-term effect. Educational implications and directions for future research are suggested.

I. INTRODUCTION

Korea introduced English education in elementary schools in 1997 as a required subject. The decision to bring the English language into Korean elementary school classrooms was based upon outcomes of discussions concerning its efficacy and efficiency. Once introduced, elementary school English education easily drew the attention of the entire nation, as the English subject was considered as one of the most important subjects, along with the Korean language and mathematics. Elementary school English education distinguished itself from secondary school English education by aiming at fostering

* This study was conducted as part of a larger project that compared English education in Korea, China, and Japan. The project was sponsored by Benesse Corporation of Japan. Kensaku Yoshida, Yoshinori Watanabe, Masashi Negishi, and Naoyuki Naganuma participated in the project as co-researchers.

confidence and interest in students and developing basic communicative competence through emphasis on the spoken language.

There have been some attempts, in the English language education research field, to assess the impact of the new elementary school English education. Most of these efforts were made through indirect surveys that investigated the status of elementary school education by asking students, teachers, or parents. Direct research has yet to be conducted that investigates whether elementary school English is effective, and if so, how effective it is. The present research investigates the long-term effect of elementary school English instruction by comparing the English abilities of Korean high school students in two consecutive years, using a standardized test of English. The study compares the scores of the 10th graders of 2003 and 2004 to see the difference between them, as the 10th graders of 2004 were those who had started learning English from the 3rd grade whereas the 10th graders of 2003 were those who had not learned English in elementary school.

This research is the first large-scale study in Korea on the long-term effect of elementary school English since it was introduced into Korean classrooms in 1997. Its results will present valuable information and implications for English education policy makers across the globe who are considering the implementation of English education in elementary schools in their countries.

II. REVIEW OF LITERATURE

For the past seven years, since the inception of English in Korean elementary schools there have been sporadic efforts made to assess the effects of elementary school English instruction. Some researchers indirectly studied the impact of primary school English program by investigating the status of elementary and middle school English education; others surveyed the attitudes of middle school students and the perceptions of middle school English teachers. None of them, however, actually studied the linguistic abilities of the students who had learned elementary school English relative to the abilities of those who had not learned elementary school English. A brief review of the previous research follows.

Hyo Woong Lee and Mae-Ran Park (2001) surveyed elementary school students, teachers, principals, and parents in the Busan area to assess the status of elementary school English education. They concluded that the surveyed participants evaluated elementary English education positively, even though there were some difficulties and problems in the practice of English teaching.

WonKey Lee, Yeon Hee Choi, Kyung-Soon Boo, and Jeong-Won Lee (2001) conducted a questionnaire survey with middle school students and teachers to identify their attitudes

and perceptions regarding English education. They found that student attitudes towards English learning and interest in English and the learning of listening were favorable, which the researchers interpreted as a positive effect of elementary school English education. They also found that students' grammar and writing abilities were low, allegedly due to the discrepancy in the levels of English and skills emphasized in elementary and middle school English. The same researchers did a follow-up study in 2002, and found that their 2001 survey results were sustained in 2002 (Yeon Hee Choi, Jeong-Won Lee, WonKey Lee & Kyung-Soon Boo, 2003).

Joo-Kyung Park (2002) reported slightly different results from her survey with middle school students in Gwangju and Jeonnam areas who had learned English in elementary school. In her study, students' interest in English learning was not very high despite their acknowledgement of the importance of learning English. Boys were more confident than girls in English, and the students' proficiency and attitudes were positively related.

Kilryoung Lee (2002) did a two-year longitudinal survey with elementary school and middle school students to see the changes in attitudes toward English learning. The students' reactions in middle school were not much different from their own reactions a year before, although their interest level declined over the one year period.

To date, no study has actually assessed the effects of elementary school English education in terms of the students' English proficiency, by measuring the students' English abilities in a comparative, longitudinal study with students who had learned English in elementary school to those who had not. It was in this context that the present study was designed and conducted to measure the improvement of English abilities by early starters compared with those of late starters through a two-year follow-up study.

III. METHOD

Assessment of the effect of teaching the English language in elementary school (ELES) can take several different forms. For example, it can adopt a longitudinal approach to quantitatively measure the progress of the students' abilities over time. Or it can take a qualitative approach to specifically identify the characteristics of the students' English abilities, comparing the ELES and non-ELES groups. The present study adopts a large-scale quantitative approach to measure the ELES and non-ELES groups with a standardized proficiency test.

1. The Participants

The present research was conducted as part of a greater project designed and

implemented to compare the students and teachers of English in high schools of Korea, China, and Japan. The overall project involved a total of 13,742 students from the three countries in 2003, and 12,836 students from the same three countries in 2004. For this particular research of comparing the students from the same schools in two consecutive years, there were 2,052 students from Japan, 4,188 students from Korea, and 3,554 students from China. The classifications of the participating students by city size, grade, and gender are presented in Tables 1 and 2.

TABLE 1
Participating Students by Cities

Country	Year	Large Cities*		Medium-sized Cities**		Total
		Schools	Students	Schools	Students	
Japan	2003	5	1,575	10	2,798	4,373
	2004	3	1,345	5	1,791	3,136
Korea	2003	5	3,263	2	1,870	5,133
	2004	4	3,256	5	2,890	6,146
China	2003	4	4,236	0	0	4,236
	2004	3	3,554	0	0	3,554

* Large cities = Population of more than 1,000,000.

** Medium sized cities = Population of 200,000 ~ 1,000,000.

TABLE 2
Participating Students by Grade and Gender

Country	Year	Sch ools	Students								Total
			1 st Year (10 th Grade)				2 nd Year (11 th Grade)				
			Boys	Girls	NA*	Sub- total	Boys	Girls	NA	Sub- total	
Japan	2003	15	1,448	1,454	13	2,915	730	674	54	1,458	4,373
	2004	8	688	820	39	1,547	729	810	50	1,589	3,136
Korea	2003	7	811	1,717	38	2,566	880	1,661	26	2,567	5,133
	2004	6	1,400	1,657	33	3,090	1,366	1,623	67	3,056	6,146
China	2003	4	986	1,187	3	2,176	966	1,091	3	2,060	4,236
	2004	3	658	755	1	1,414	951	1,182	7	2,140	3,554
Total	2003	26	3,245	4,358	54	7,657	2,576	3,426	83	6,085	13,742
	2004	13	2,746	3,232	73	6,051	3,046	3,615	124	6,785	12,836

* NA = Information not available about the gender of students.

In Table 3, “New” schools are the schools that newly participated in the project in 2004, while “Repeating” schools are those that participated in the project for two consecutive years. In order to guarantee statistical consistency, the present research will use the data

only for the repeating schools when comparing the students' performance in 2003 and 2004.

TABLE 3
New and Repeating Schools and Students in 2004

Country	Grade	New		Repeating		Total
		Schools	Students	Schools	Students	
Japan	1 st Year	4	541	4	1006	1006
	2 nd Year	4	543	4	1046	1046
	Total	4	1084	4	2052	3136
Korea	1 st Year	3	975	6	2115	3090
	2 nd Year	3	983	6	2073	3056
	Total	3	1958	6	4188	6146
China	1 st Year	0	0	3	1414	1414
	2 nd Year	0	0	3	2140	2140
	Total	0	0	3	3554	3554

2. Instruments

Two types of instruments were used in the study. One was a survey questionnaire that probed the students' perception of their English proficiency, their study habits, their attitudes towards learning English, and their biographic information. Most of the data, except the data about the grade, were not directly relevant for this particular study; they were used for other research projects.

The other instrument was a standardized test called GTEC (Global Test of English Communication) for STUDENTS, developed by the Benesse Corporation of Japan. The validity and reliability of the test had been tested and established over seven years. The test reports the test-takers' proficiency in absolute scale scores, utilizing the Item Response Theory to calibrate the test taker's ability.

This test is based on and elicits linguistic materials used for everyday situations. The test measures the abilities of reading (320 points total), listening (320 points total), and writing (160 points total) on an 800-point absolute scale. The test items are written by trained specialists in the United States and the United Kingdom.

The reading test consists of three parts with 43 items to be answered in 45 minutes. Part A (14 items, 7 minutes) is a sentence completion test to measure grammar and vocabulary. Part B (14 items, 14 minutes) assesses reading comprehension with short passages of about 100 words each. Each passage has one or two questions asking about the main ideas, details, inferential information or other comprehension questions. The passages cover a wide range of topics and genres. Part C (15 items, 24 minutes) measures reading

comprehension with three long passages of about 350 words, each asking 5 questions tapping into many different aspects of reading ability.

The listening test has four parts with 40 items to be answered in 25 minutes. Part A (10 items) requires the students to choose (out of three orally given options) the sentence that best describes the given photograph. Part B (10 items) requires the students to hear a short question and three options, and choose the correct answer to the question. Part C (10 items) provides the students with written descriptions of five situations in the students' native language. The students hear a dialog between two people (one of whom is supposed to be the test taker), and read two questions and choose answers from four graphic options for each question. Part D (10 items) consists of five conversations for the students to hear, two written questions for each conversation, and four written options for each question.

The writing test gives one task of writing to be completed in 20 minutes. The instructions are presented in the students' native language. The theme of the writing task varies from test to test, but it covers students' immediate interest areas. The task given for the 2003 test was to argue for or against raising the driving age from 18 to 20. Two statistical charts were provided to help with the argument. The task given for the 2004 test was to describe the most valuable thing to the students and explain the reason to an imaginary friend from a foreign country. The rating criteria include three categories: vocabulary, grammar, and organization. The vocabulary category assesses word choice, word usage, spelling, punctuation, capitalization, and word form. The grammar category includes complexity of language structures, variety of sentence types, sentences clarity of the sentence meanings, tense, and missing words. Organization addresses the organization of ideas, clarity of the stated ideas, supporting of ideas, use of paragraphs, and use of transition words. Each category gives 0 to 4 points, with .25 points increments.

The GTEC score system classifies the candidates' English abilities into six grade levels, based on their total scores and sub-skill scores, with G1 as the lowest level and G6 as the highest level. The grade definitions had been established through empirical research over the years. Different grades, from G1 to G6, are also provided for each sub-skill of English, i.e., reading, listening, and writing. Definitions of the GTEC grades for total scores are presented in the Appendix.¹

3. Data Collection Method

The GTEC for STUDENTS was administered in separate schools at the time most

¹ Definitions of the sub-skill grades will be available from the researcher on request.

convenient to each school. The participating high schools all had the general goal of helping students to prepare for college education. All students in first and second year in the participating schools were required to take the GTEC for STUDENTS and fill out the questionnaires.

The proctors of the test administration were the teachers in each school, and students were encouraged to do their best in order to assess their English abilities accurately. The students were told that their scores will be reported in terms of their relative ranks among all the students who took the test in the research project as well as the scores themselves. The researchers and their assistants visited the schools and assisted the teachers with the test administration. The survey questionnaires were distributed together with the test sheets, and were completed after the test. The 2003 survey was conducted in November, 2003², and the 2004 survey was in October and November, 2004.

4. Analysis of the Data

Data was analyzed with a variety of statistical instruments. The students' English proficiency and their responses to the questionnaires were compared internationally and between the 2003 and 2004 cohorts.

IV. RESULTS

Instead of simply presenting the scores of the compared groups, the statistics of the three countries will be presented first, in order to position the Korean scores in the relative amplitude of score ranges. Otherwise it may be difficult to assess the significance of the numerical differences between the ELES and non-ELES groups.

1. Background Statistics for the Three Countries

As the scores for the overall project that involved Korea, Japan, and China can provide a background reference point for the Korean students' scores, the GTEC scores of 2003 and 2004 are summarized below. An ANOVA summary table will also be presented for the scores.

1) GTEC Scores

In the 2003 survey, Chinese students' total mean score (432.6) was the highest, followed

² Results of the comparative study for the 2003 survey were reported in Kwon et al. (2004).

by Korean (414.1) and Japanese mean (407.8). Korean students scored highest in listening and reading, while they scored lowest in writing. Korean students' extremely low score in writing offset their superior performance in listening and reading, making their total mean score fall behind Chinese students'. Table 4 shows the total mean scores of the three country students.

One thing to note in the table is that the standard deviations of the Korean students' scores were greater than those of the other two countries, signifying that Korean students' abilities were more widely spread out than Japanese or Chinese abilities.

TABLE 4
The GTEC Scores of 2003

	Country	n	Mean	SD	Min	Max	F (p)
Total	Japan	4,235	407.8	88.7	78	732	67.874 (0.0000)
	Korea	5,098	414.1	120.7	142	768	
	China	4,225	432.6	77.0	200	731	
Read	Japan	4,238	166.4	44.5	9	295	260.901 (0.0000)
	Korea	5,124	190.6	50.3	73	309	
	China	4,227	185.9	30.2	99	303	
Listen	Japan	4,240	156.7	38.5	43	320	104.117 (0.0000)
	Korea	5,100	171.6	47.0	42	301	
	China	4,225	162.5	36.0	64	301	
Write	Japan	4,238	84.8	22.3	0	160	1453.822 (0.0000)
	Korea	5,133	51.5	38.4	0	160	
	China	4,229	84.2	30.3	0	160	

A similar pattern of scores was observed a year later in 2004, except that Korea's total score fell behind Japan's. In 2004, the Korean survey added new schools from local medium-sized cities while the Japanese survey added Super English Language High Schools (SELHi) that particularly focus on English language education.

Table 5 shows the total scores and three skill area scores. In the table, "New" means the schools that participated newly in 2004; "Repeating" means the schools that participated in both 2003 and 2004. China did not add new schools in the 2004 survey. Japan's new schools demonstrated very high mean scores, which is natural, as the SELHi's had intensive English programs. Korea, on the other hand, showed low average scores for new schools, which were all from medium-sized cities. The scores of the repeating schools showed the same pattern for two years except that Korean 11th graders in the repeating schools scored lower than the Japanese counterparts. Although Korean students' writing scores improved in one year, they were still lower than Chinese or Japanese scores.

TABLE 5
GTEC Scores by School Grades and Skill Areas for the 2004 Survey

	First Year (10 th Grade)			Second Year (11 th Grade)			Total
	New	Repeating	Mean	New	Repeating	Mean	
Japan	n=541	n=1006	n=1547	n=543	n=1046	n=1589	N=3136
Read	180.4	160.4	169.7	196.5	184.4	188.5	179.3
Listen	180.9	158.4	166.3	197.0	166.5	176.9	171.7
Write	96.4	85.5	89.3	100.3	89.8	93.4	91.4
Total	457.6	408.0	425.3	493.8	440.7	458.9	442.3
(SD)	(77.0)	(60.1)	(70.6)	(94.6)	(72.4)	(84.5)	(79.7)
Korea	n=975	n=2115	n=3090	n=983	n=2073	n=3056	N=6146
Read	175.4	195.1	188.9	189.2	194.1	192.5	190.7
Listen	161.7	187.4	179.3	171.6	179.6	177.0	178.2
Write	59.4	66.0	63.9	56.6	62.2	60.4	62.2
Total	396.5	448.6	432.1	417.4	435.9	429.9	431.0
(SD)	(78.2)	(110.1)	(104.0)	(87.5)	(117.8)	(109.3)	(106.7)
China		n=1414	n=1414		n=2140	n=2140	N=3554
Read		193.0	193.0		202.1	202.1	198.5
Listen		173.0	173.0		174.3	174.3	173.8
Write		87.6	87.6		85.4	85.4	86.2
Total		453.5	453.5		461.8	461.8	458.5

2) ANOVA Results

The ANOVA results of these scores demonstrated that almost all the variables and their interactions were significantly meaningful. Table 6 is an ANOVA summary table for the total scores. The ANOVA's for sub-skill scores also produced similar results, but they will not be reported here due to space limitations.

TABLE 6
ANOVA Summary Table of the Total Scores in the 2004 Survey

Source	SS	df	MS	F	Sig.
Country	2790798	2	1395399	167.9	0.000
School Grade	746169.5	1	746169.5	89.8	0.000
Repeating	119596.2	1	119596.2	14.4	0.000
Country x School Grade	427813.3	2	213906.6	25.7	0.000
Country x Repeating	3475015	1	3475015	418.1	0.000
School Grade x Repeating	159465.6	1	159465.6	19.2	0.000
Country x School Grade x Repeating	106217.3	1	106217.3	12.8	0.000

2. The Effect of Elementary School English Instruction

The first-year high school students in 2003 (the non-ELES Group) and 2004 (the ELES Group) were compared to see the effect of elementary school English instruction. The ELES Group of 2004 was also compared with the second-year high school students of 2004 to see how well the ELES Group performed in comparison with their senior class in the same year of 2004.

1) The GTEC Scores of the 2003 and 2004 First-year High School Students (10th Graders)

The 2004 10th graders, the ELES Group, performed far better than the 2003 10th graders, the non-ELES Group, in all areas of the GTEC, lending a strong support for the efficacy of elementary school English instruction. Listening showed the greatest improvement of scores (+18.9 points), followed by Writing (+11.2) and Reading (+9.8). As a result, the total score of the 2004 students was as much as 40.0 points higher than that of the 2003 counterparts. Table 7 shows the GTEC scores for the two cohorts.

TABLE 7
GTEC Scores of the First-Year High-School Students (10th Graders) in 2003 and 2004

Areas	10 th Graders in 2003 (non-ELES)			10 th Graders in 2004 (ELES)			Diff.*	p*
	Mean	SD	n	Mean	SD	n		
Read	185.3	49.7	2105	195.1	44.0	2115	+9.8	0.000
Listen	168.5	45.2	2105	187.4	48.5	2115	+18.9	0.000
Write	54.8	38.1	2105	66.0	30.1	2115	+11.2	0.000
Total	408.6	119.9	2105	448.6	110.1	2115	+40.0	0.000

* Diff. = Differences (or gains by the 2004 cohort)

As elementary school English emphasized spoken English to the degree that written English was not, or minimally, introduced in the 3rd and 4th grades, students were trained to listen and speak English before they could read and write. Therefore, it seems natural that a greater gain was achieved in listening than in reading or writing. The 2004 students (the ELES Group) must have been trained better than the 2003 students (the Non-ELES Group) in listening.

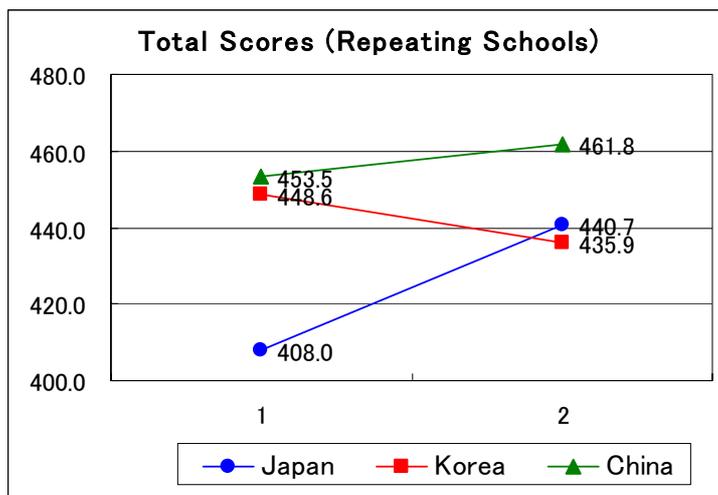
The gain in the writing score was a little greater than the gain in reading. Although these gains were not as great as that of listening, they were still impressive, indicating that the ELES Group's overall English abilities were far higher than the non-ELES Group's.

2) GTEC Scores of the 10th and 11th Graders in 2004

If the elementary school English was effective, how effective was it? This question can be answered through a comparison of the GTEC scores of the 10th and 11th graders in 2004. As has been mentioned earlier, the 11th graders were the non-ELES Group, while the 10th graders were the ELES Group. The question was whether the ELES Group could perform as well as the non-ELES Group who had learned one more year of high school English.

The results show that Korean 10th graders (the ELES Group) outperformed the 11th graders (a non-ELES group) in all skill areas, i.e., reading, listening and writing. When these results were compared with the results of Chinese and Japanese comparisons of 10th and 11th grader counterparts, the effect of elementary school English manifested itself more dramatically. In China and Japan, 11th graders outperformed 10th graders in almost all areas, demonstrating the usual pattern of higher scores by higher grade students. The total scores and each of the sub-skill scores are compared below, with references to Japanese and Chinese counterparts' scoring patterns.

FIGURE 1
Total Scores of 10th and 11th Graders in 2004



* 1 = 10th grade; 2 = 11th grade

(1) Total Scores

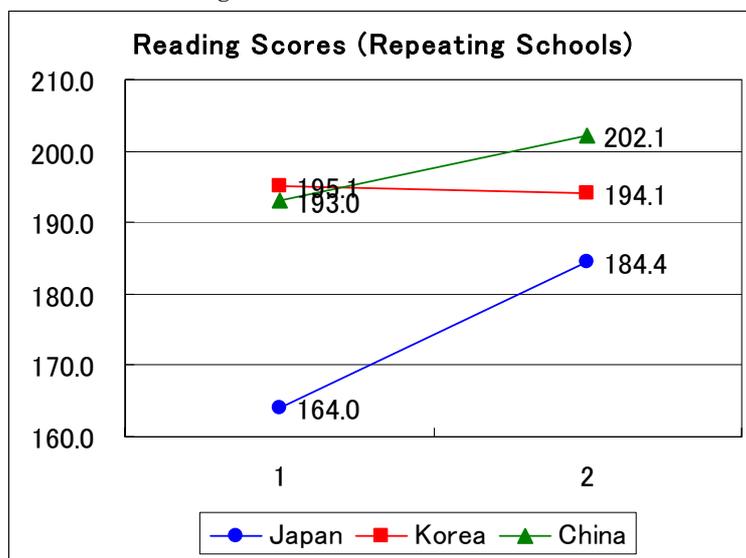
Figure 1 above shows the increase and decrease of total scores in the three countries for 10th and 11th graders. Chinese and Japanese 11th graders scored much higher than their junior classes of 10th graders, demonstrating their superior English abilities gained from an additional year of English instruction. On the other hand, Korean 10th graders

outperformed 11th graders to a remarkable degree. The long-term effect of elementary school English education seemed so great that it surmounted the one year's deficit of instruction in high school English.

(2) Reading Scores

Figure 2 shows the changes in reading scores. As in the total scores, only Korean 10th graders outperformed 11th graders though the difference was not significant. Since both Japanese and Chinese 11th graders scored considerably higher than 10th graders, the Korean 10th graders' superior performance should be attributable to the effect of elementary school English education.

FIGURE 2
Reading Scores of 10th and 11th Graders in 2004

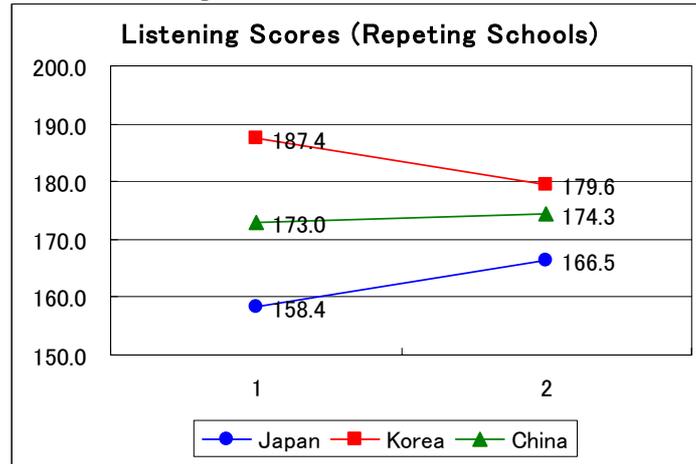


(3) Listening Scores

The same pattern of Korean 10th graders outperforming 11th graders was observed in listening scores, as shown in Figure 3. Note that Korean 10th graders scored much higher than Chinese or Japanese 10th graders. Although Korean 11th graders, too, scored higher than Chinese or Japanese 11th graders, their excellence was shadowed by their junior class (i.e., 10th graders) who scored so glaringly high. Why did the Korean ELES Group outperform so excellently in listening? As has been mentioned above, the answer can be found in the characteristics of the elementary school English in Korea, which focuses on spoken English, especially for the first two years of the 3rd and 4th grades when no written English is taught. Even though written language is taught in the 5th and 6th grades, greater

emphasis is still put on spoken English. Therefore, the ELES Group's outstanding performance in listening was something that had been expected.

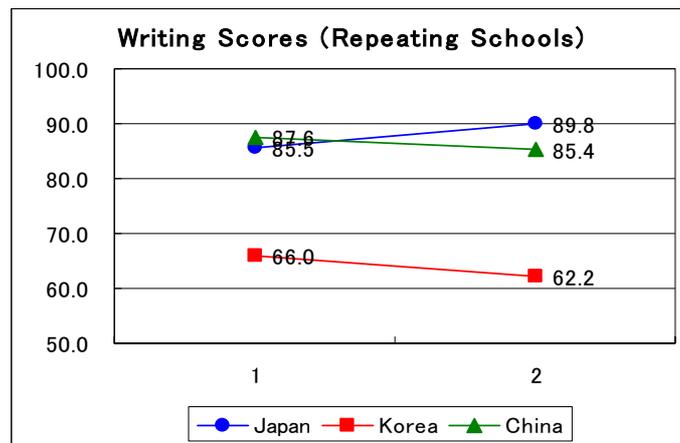
FIGURE 3
Listening Scores of 10th and 11th Graders in 2004



(4) Writing Scores

In writing, Chinese 10th graders outperformed the 11th graders. This result was unexpected, as Chinese 11th graders outperformed 10th graders in all other skill areas. Korean 10th graders performed significantly better than 11th graders. Figure 4 shows the changes of writing scores in Korea, Japan, and China. Note that Korean writing scores were much lower than Chinese or Japanese scores in both 10th and 11th grades.

FIGURE 4
Writing Scores of 10th and 11th Graders in 2004



3. Discussion

As has been presented so far, the 10th graders of 2004, i.e., the ELES Group, demonstrated remarkably superior abilities in all skill areas of English, compared with their non-ELES counterparts of the 10th graders in 2003 and their senior class in 2004. The differences in scores were not just statistically significant but practically impressive.

It can be contested that the superior performance of the 2004 FLES students may not be attributable solely to the effect of elementary school English. Alternative competing causes may be conceived: (1) The reliability of the GTEC for STUDENTS may be questioned; (2) The 2003 non-ELES group might have been an unusually incompetent group; or (3) the amount of exposure to English and tutoring might have contributed to the differences. In what follows, these competing causes will be examined to consider their validity and viability.

1) The Reliability of the GTEC for STUDENTS

The reliability of the GTEC should not be an issue, as GTEC was a standardized test whose reliability and validity had been established for more than seven years, and because the scores were obtained through the application of the Item Response Theory. Therefore it is improbable that the test scores fluctuated with different test administrations.

TABLE 8
GTEC Scores of 10th Graders of Three Counties in 2003 and 2004

Country	Areas	10 th Graders in 2003			10 th Graders in 2004			Mean diff.
		Mean	SD	n	Mean	SD	n	
Japan	Read	162.1	39.7	1114	164.0	27.7	1006	+1.9
	Listen	155.0	33.6	1114	158.4	31.5	1006	+3.4
	Write	83.0	20.3	1114	85.5	16.9	1006	+2.5
	Total	400.1	77.0	1114	408.0	60.1	1006	+7.9
Korea	Read	185.3	49.7	2105	195.1	44.0	2115	+9.8
	Listen	168.5	45.2	2105	187.4	48.5	2115	+18.9
	Write	54.8	38.1	2105	66.0	30.1	2115	+11.2
	Total	408.6	119.9	2105	448.6	110.1	2115	+40.0
China	Read	185.8	29.0	2092	193.0	28.4	1414	+7.2
	Listen	164.2	33.6	2092	173.0	33.6	1414	+8.8
	Write	88.2	27.80	2092	87.6	23.2	1414	-0.6
	Total	438.2	70.4	2092	453.6	68.8	1414	+15.4

The reliability of the GTEC is also evidenced by the consistency of the GTEC scores

marked by Japanese and Chinese students for the same two years. Table 8 shows the GTEC scores of first-year high-school students, i.e., 10th graders, in Japan, Korea and China in 2003 and 2004. Japanese students' total scores did not change very much (only 7.9 points), and the Chinese total score gained a little (15.4 points), while the Korean total score jumped drastically (40.0 points). If the 2004 GTEC had been easier than the 2003 GTEC, the scores of all three countries would have been inflated to a similar degree.

2) The Incompetence of the 10th Graders in 2003

The second alternative cause that can be proposed for the superior performance of the 2004 ELES Group may be the possibility that the 2003 cohort of 10th graders was relatively incompetent compared to other ordinary cohorts. This argument is not supported by the evidence. On the contrary, the data indicates that the 2003 group was more competent than their senior students. Table 9 shows the GTEC scores of the first-year (10th grade) and second-year (11th grade) Korean high school students in 2003. The 10th graders performed as well as the 11th graders in listening and writing, and only slightly poorer in reading. Therefore, even though the total score of the 11th graders was higher than that of the 10th graders, the difference was only due to the difference in reading scores. The argument that the 10th graders in 2003 might have been an unusually incompetent group is not sustained.

TABLE 9
GTEC Scores of Korean 10th and 11th Graders in 2003

Areas	Korean 10 th Graders			Korean 11 th Graders			t	p*
	Mean	SD	n	Mean	SD	n		
Read	185.3	49.7	2105	193.9	49.6	2060	5.74	0.000
Listen	168.5	45.2	2105	169.7	45.8	2060	1.50	0.135
Write	54.8	38.1	2105	53.5	38.3	2060	-1.29	0.197
Total	408.6	119.9	2105	417.0	119.8	2060	2.62	0.009

3) Other Possible Causes

The differences might be attributable to the greater amount of exposure to English that the ELES Group had had, as they were exposed to English for three or four more years than the comparison groups of 10th graders in 2003 and 11th graders in 2004. However, extended exposure to English is one of the main reasons for introducing English into elementary school. Therefore, it should be considered one of the beneficial effects of the ELES.

Or the differences might be due to the different amount of private tutoring that the ELES

Group might have received along with the official school education. This and other confounding variables cannot be completely ruled out. However, private tutoring had been rampant even before the ELES Group started learning English. It is our understanding that, as far as private tutoring is concerned, the non-ELES Group had not necessarily received much less tutoring than the ELES Group.

If we consider the fact that Japanese and Chinese counterparts in the same years did not show such big differences, it can be claimed that the ELES Group did benefit from elementary school English education, to the degree that they could outperform their senior class who had not learned English in elementary school but had learned English for one more year in high school.

V. CONCLUSION AND SUGGESTIONS

The findings of the study will be summarized first, followed by implications and suggestions for future research.

1. Summary of the Findings

The long-term effect of elementary school English education on high school students' English abilities was investigated through a comparison of the GTEC scores of the first-year (10th grade) high school students of 2003 and 2004. The result indicated that elementary school English instruction did have positive long-term effects. The ELES Group of 2004 outscored the non-ELES counterparts of 2003. A surprising, and rather unexpected, result was the superior performance of the 10th graders over the 11th graders in 2004. It demonstrates that the effect of elementary school English instruction was great enough to overtake the one additional year of English instruction in high school.

2. Implications and Suggestions

The present study is significant in that it is the first large-scale research in Korea involving a great number of students who took the same standardized tests for two years. The results are important as they not only compared the ELES Group with their counterparts of 2003 and their senior class in 2004 but also provided comparable results of Japan and China for reference. By comparing the Korean results with the Japanese and Chinese results, the magnitude of the differences was graphically illustrated between the ELES Group and their counterparts. Such a study is unprecedented in Korea or any other part of the world.

As timing was an important factor in this type of research, this study was conducted at a critical time in the history of English education in Korea, because the 10th graders in 2003 were the last cohort that had not learned English in elementary school. Such a comparative study can not be repeated in the future, except for a survey with the 11th and 12th graders in 2005 and 2006. Once the last cohort of the non-ELES group graduates from high school in the spring of 2007, it will be virtually impossible to compare ELES groups with non-ELES groups in the Korean educational context.³

The positive long-term effect of ELES found in the present study provides solid empirical, post-hoc support for the Korea's decision to introduce elementary school English in 1997, and it offers empirical support for other countries that debate over ELES.

Another study in 2005 with 11th graders (the ELES Group) and 12th graders (the non-ELES Group) is desired to reaffirm the findings of the present study. Such a survey would further prove (or disprove) the long-term effect of ELES in 11th and 12th grades. Also, further and continued research on related issues of ELES and comparison of the three countries in East Asia would produce more valuable results that will eventually contribute to the improvement of teaching and learning of English in the area and the world.

REFERENCES

- Choi, Yeon Hee; Lee, Jeong-Won; Lee, WonKey; & Boo, Kyung- Soon. (2003). Effects of elementary school English education on middle school English education: Focused on the analysis of students' survey responses. *Primary English Education*, 9(1), 131-165.
- Kwon, Oryang; Yoshida, Kensaku; Watanabe, Yoshinori; Negishi, Masashi; & Naganuma, Naoyuki. (2004). A comparison of English proficiency of Korean, Japanese and Chinese high school students. *English Teaching*, 59(4), 1-23.
- Lee, Hyo Woong; & Park, Mae-Ran. (2001). A preliminary evaluation of the elementary school English program in Korea. *English Teaching*, 56(1), 53-79.
- Lee, Jeong-Won; Choi, Yeon Hee; Boo, Kyung- Soon; & Lee, WonKey. (2003). Effects of elementary school English education on middle school English education: Focused on the analysis of middle school teachers' survey responses. *Foreign Languages Education*, 10(2), 25-44.
- Lee, Kilryoung. (2002). Attitudes towards learning English by middle school students who have experienced elementary school English. *English Teaching*, 57(2), 343-363.

³ A comparative study could be possible with university students using such standardized tests as TEPS or TOEFL/TOEIC. However, it will be very difficult to control the biodata of the university students.

- Lee, WonKey; Choi, Yeon Hee; Boo, Kyung-Soon; & Lee, Jeong-Won. (2001). An investigation into the effects of elementary English education: A follow-up study on first-year middle school students. *English Teaching*, 56(4), 211-241.
- Park, Joo-kyung. (2002). Seventh graders' perception of learning English in elementary schools. *English Teaching*, 57(4), 369-347.

APPENDIX

Definitions of Grade (GTEC for STUDENTS)

Scores	Grade	Definitions of the GTEC Grades
610 or above	6	《CAN-DO》 The minimum level of readiness to study abroad at a 4-year college in an English speaking country (680 and above). 《Skill Level》 Average level of 6 or higher in 3 skill areas.
520 ~ 609	5	《CAN-DO》 The minimum level of readiness to study abroad at a 2-year college in an English speaking country (540 and above). 《Skill Level》 Average level of 5 or higher in skill areas.
440 ~ 519	4	《CAN-DO》 The minimum level necessary for going to a short-term language study program in an English speaking country and understanding the class. 《Skill Level》 Average level of 4 or higher in 3 skill areas.
380 ~ 439	3	《CAN-DO》 The minimum level for going on a homestay or vacation in an English speaking country and enjoying it. 《Skill Level》 Average level of 3 or higher in 3 skill areas.
300 ~ 379	2	《CAN-DO》 The level for gaining experiences such as talking with a native English-speaker teacher. 《Skill Level》 Average level of 2 or higher in 3 skill areas. 《Skill Level》 Average level of 2 in 3 skill areas.
299 and below	1	《CAN-DO》 The level where future possibility is looked forward to. 《Skill Level》 Average level of 1 in 3 skill areas.

Applicable levels: elementary and secondary schools

Key words: FLES, comparative study, high school English, effect of elementary school English, GTEC for STUDENTS, English testing

Oryang Kwon, Ph.D
 Department of English Education
 Seoul National University,
 Seoul, 151-748, Korea
 Tel. (+82)-17-352-5217 (Mobile)
 FAX: (+82)-2-583-7542
 Email: oryang@snu.ac.kr

Received in May, 2005

Reviewed in June, 2005

Revised version received in August, 2005