

The Application of Phonics to the Teaching of Reading in Junior High School English Classes in Japan

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Introduction

Communicating in English is increasingly required for Japanese people as members of an international society. The cultivation of communicative competence is the stated goal of English education in Japan today. It has been three decades since *Mombushô*, the Ministry of Education, established this objective, and over the years attempts to improve English L2 teaching have been undertaken. However, TOEFL results¹ clearly show that the country is far from reaching the Ministry's goal (Ochi, 1999). Takao Suzuki, a noted sociolinguist, concurs that, in general, the English ability of Japanese people is surprisingly low; for example, university graduates who have studied English for eight to ten years cannot even give satisfactory directions to foreign travelers in Japan (1999).

One of the main factors which has contributed to such poor English proficiency among Japanese people is *yakudoku*, a foreign language learning method traditionally used in Japan.² *Yakudoku*, which means "translation reading," is a reading method in which English sentences are first translated into Japanese word-by-word, and then the resulting translation is reordered to suit Japanese word order. In the *yakudoku*-style class, which is typical of English study in Japan, a teacher reads the text aloud for his or her students and has them repeat it. Then the students give its word-for-word translation, usually assigned as the previous night's homework and written in their notebook, after which the teacher corrects their translation by offering grammatical explanations and provides a model translation. The goal of the class is to have students understand the exact Japanese translation; therefore, instead of working within the English text, the students concentrate strictly on Japanese translations. The *yakudoku* method is used by the majority of Japanese teachers of English from junior high school³ to university. Hino notes that according to two recent nation-wide surveys conducted by the Japan Association of College English Teachers, approximately 80% of Japanese teachers of English in high schools and universities used the *yakudoku* method, and by some estimates, 70% of Japanese university students today have been taught to read

English solely with this method (1988). This approach to teaching, however, undermines progress towards internationalization in Japan: "In terms of the teaching of English for communication needed today, *yakudoku* is undoubtedly a serious handicap for Japanese students of English" (p. 52). This is because the *yakudoku* method creates problems for English L2 learning; i.e., in the *yakudoku*-style class, little attention is given to phonetic sounds (Okuda, 1985; Nisato, 1989; Takiguchi, 1995). The essence or true nature of language is voice or speech sounds; without it, language cannot exist. Therefore, learning proper pronunciation is imperative for the study of a foreign language. In terms of English instruction, without having confidence in pronunciation, students not only lose the will to speak, but also confidence in every other aspect of English communication, including listening, writing, and reading (Matsuka, 1981, 1993). In addition, in *Mombushô's* Course of Study Guidelines, which define and control the contents of English teaching in secondary schools in Japan, emphasis is placed on the instruction of proper pronunciation, whereas the teaching of translation into Japanese is not even mentioned (*Mombushô*, 1988). In spite of this, the mastering of *yakudoku* skills is still strongly identified with the goal of learning English in Japan (Hino, 1988). As a consequence, the teaching of pronunciation (i.e., how to make English sounds or how to read English spellings directly with correct pronunciation) has long been neglected in class, and this omission has caused the dual problem of the prevalence of "*katakana* pronunciation" and the rote memorization of long lists of vocabulary items.

Katakana is a Japanese syllabary (phonetic alphabet) used to transcribe words of foreign origin; however, it does not represent the exact English sounds and is actually often far from the correct pronunciation (Sugiura, 1994). Through *katakana* letters written under the text to show the reading, incorrect English pronunciation is promoted. Once this *katakana* pronunciation is acquired, it becomes a lifelong habit, one that is extremely difficult to break. The *katakana* pronunciation of English words, flourishing and used everywhere in Japan, is clearly an obstacle in the quest for proper pronunciation. In short, students cannot read words independently because they do not know the sounds of letters which constitute the words; i.e., they cannot connect the letters of the alphabet with their sounds. Without knowing how to read words, it is difficult to write them. This is simply because they are rarely taught the relationships between letters and sounds. Thus, the only way for students to keep up with classes is resorting to the rote memorization of the pronunciation and spelling of all words. This is the reason why English is often said to be a subject of rote learning in Japan. However, this strategy requires enormous efforts by students and creates a heavy workload so that those who lack the will to learn drop behind easily.

An important responsibility for teachers in Japan is to guide students in learning the association between letters and sounds so that they can read English independently. Because of these problems (i.e., *katakana* pronunciation and rote memorization of vocabulary resulting from the *yakudoku* method), phonics instruction is effective in providing a means of accomplishing these goals. It focuses on phonetic sounds so that students can be provided with instruction in proper pronunciation. Phonics deals directly with letter-sound relationships, as it is a teaching method for reading based upon the correspondence between spelling and sound. Through phonics teaching, students can gain confidence in their pronunciation because they learn the correct sounds that letters or letter combinations represent, so that by connecting them they are able to pronounce words properly. Therefore, *katakana* pronunciation or rote memorization of vocabulary is no longer needed. In short, phonics helps cultivate students' fundamental communicative skills in English in reading, writing, listening, and speaking.

Phonics is a teaching method developed in America in the 1800s to help children who had difficulty learning spelling by rote memorization. According to the Longman dictionary, phonics is "a method of teaching beginners to read by learning how to pronounce letters, letter groups, and syllables" (1995, p. 120). Heilman adds that "[p]honics instruction is teaching letter-sound relationships, [and its] purpose is to provide beginning readers with a means of identifying unknown printed words" (1998, p. 27). Once children can recognize words by associating written letters with the corresponding speech sounds which they have already acquired, they can read books because they already know the meaning of words. Thus, learning to read means learning to sound out words (Flesch, 1986). Phonics instruction, as pre-reading, is given to children in many introductory English courses in English-speaking countries:⁴

Phonics is a common method of teaching new learners of English how to read in the United States. Teachers begin teaching phonics to students in kindergarten, age 5 and 6, and continue teaching it until 2nd grade, age 7 and 8. Today phonics is taught for a minimum of 30 minutes every day during the first three years of school. (Patton, 1994, p. 94)

For Japanese students, who know neither English sounds nor word meanings, phonics can also be a useful and necessary teaching method. Phonics is important for Japanese students because it . . .

. . . teaches [them] how to sound out letters one by one. Through phonics, Japanese children learn (1) how to make correct English sounds (2) how to independently read English words and sentences and (3) how to spell out words they hear. Phonics provides the basics of English for beginning students. (Matsuka, 1992)

However, very little research has been conducted on the use of phonics in classrooms in Japan, and there is only one study which this author is aware of in which the effectiveness of phonics instruction was tested in Japanese junior high schools. In this study, reported by Morinaga, (1983), phonics instruction was given in an "intensive training course" which was not part of regular English classes. By using a phonics textbook which had a relatively small number of example words for each phonics rule (i.e., 450 vocabulary items in total, divided into 18 categories of phonics rules), 20-minute sessions of phonics instruction were given to first and second year junior high students for a total of 13 sessions (i.e., four hours and 20 minutes). Pre- and posttests for reading were assigned in which each student was required to sound out 22 "nonsense words," and evaluation was based on whether the students could read the underlined part of these artificial words which reflected a phonics rule. The percentage of correct answers by first year students improved from 28.9% (pretest) to 59.1% (posttest) and by second year students from 53.4% to 64.5%. However, the phonics rules which were tested were not determined by analyzing the vocabulary in students' English textbooks, and it is not clear how they were taught, nor how the example vocabulary items were used to help them understand the phonics rules. There is also no information on the participants (e.g., how many, or how they were selected, etc.), and the results were not subjected to any statistical analyses. In addition, there was only one comparison made within the treatment group before and after phonics instruction, but no control group was established to verify the absence of extraneous variables. Nevertheless, the results that were obtained from this study are promising despite certain shortcomings in the research design.

The present study has been designed to avoid many of the pitfalls described above in Morinaga's investigation. Rather than testing the effects of phonics instruction in an intensive, short-term fashion, this study focuses on comprehensive, long-term phonics instruction with clearly specified subjects, materials, and procedures. This research aims to show that phonics instruction is a useful and effective teaching tool when used in conjunction with *Mombushô's* curriculum in regular English classes in Japanese junior high schools. The goal of this study is to verify empirically that phonics instruction improves students' reading ability and raises their desire to learn English. Therefore, the following two research questions were tested in this investigation: (1) If students are provided with proper phonics instruction for an adequate period of time at the beginning stages of their English L2 education, will their reading ability show significant improvement? (2) If students undergo this kind of treatment, will they develop positive and enthusiastic attitudes towards their English studies?

Method

Subjects

The subjects of this investigation were first year students (ages 12 to 13) in Yodo Junior High School in Matsuyama. There were 220 students involved in the study, and they were divided into six classes with an average of approximately 37 students per class, equally divided between males and females. The six classes were uniform in terms of academic levels, although individual students varied in terms of their abilities.

In this investigation, one class (i.e., class 2) was used as the control group and did not receive phonics instruction; the other five classes (i.e., classes 1, 3, 4, 5, and 6) were used as the treatment group, in which phonics instruction was provided. The five classes of the treatment group were taught by this author,⁵ whereas the control group class was taught by another teacher who knew little about phonics and did not provide any phonics instruction. Classes 1, 3, 4, and 5 in the treatment group (N=142) were assigned pre- and post-instruction reading/listening tests, as was the control group (N=37), although these students did not receive any phonics instruction during the period between the tests. A small group of volunteer students from class 6 of the treatment group (12 out of a total of 37 students) were also assigned pre- and post- instruction reading/speaking tests. In addition, the entire treatment group (N=179) was assigned a questionnaire about their phonics study.

Materials

The Phonics Textbook (See Appendix 1)

A phonics textbook was developed by this author and used in the treatment group classes. These teaching materials deal with the minimum essential phonics rules (i.e., the "sound alphabet," "magic E," "polite vowels," and 21 "letter combinations"),⁶ as determined by a vocabulary analysis of the subjects' English textbooks in terms of Matsuka's phonics rules.⁷ The textbook includes a brief explanation of each rule and many example words to which the rule is applied; i.e., about 25 example vocabulary items for each rule amounting to about 800 in total. (For further details on this phonics textbook, see Takeda, 2000, and Takeda, 2002).

The Reading/Listening Test, the Reading/Speaking Test, and the Questionnaire

The reading/listening test was a multiple choice pronunciation test, administered orally by the instructor. It was designed to be convenient for use with large groups so that many students could take this test together in the classroom in a short period of time. In contrast, the reading/speaking test, an individual interview-style verbalizing

test, was structured to be more suitable for a small number of students. Both tests consisted of the same vocabulary items; i.e., the reading/listening test required students to choose the correct pronunciation of target items and the reading/speaking test required students to sound them out. These tests presented 30 words which were unfamiliar to students and which were not included in either their English textbooks or the phonics textbook.⁸ However, these words reflected all of the most important phonics rules dealt with in the phonics textbook. Namely, each vocabulary item represented an application of one of these rules: items 1~5 on the test paper concerned the "sound alphabet," 6 and 7 "magic E," 8 and 9 "polite vowels," and 10~30 the 21 "letter combinations."

The questionnaire, which was adapted from previous research conducted by Sugiura (1994), included a series of questions which were designed to shed light on students' feelings about the phonics instruction they had received.

Procedures

The Phonics Instruction

The phonics instruction started in the first English class of first year students in Yodo Junior High School in April, 1999. This instruction was conducted in the first 10 minutes of each class by using the phonics textbook, and it lasted until the end of October. The organization of this six-month period of phonics instruction began with the "sound alphabet," which was taught carefully and thoroughly because this is the basis of all phonics instruction. It took one month for students to master this alphabet. Then, the students read short words which could be read entirely by applying only the sound alphabet. This exercise demonstrated the principle that any English words can be read by connecting the sounds of their constituent letters. Letter combinations involving "magic E" and "polite vowels" were then taught through the following steps:

(1) The phonics rule is arrived at inductively by students, i.e., the teacher does not provide explicit instruction on the rule at the beginning, but lets students discover it for themselves. For example, the rule $ch=/tʃ/$ is presented by showing students the word *lunch*, which is familiar to most of them. The teacher asks them, "How do you pronounce this word?" Students reply, "/lʌntʃ/." The teacher says, "Very good! Then, how about the *ch* part only?" Students respond, "/tʃ/."

(2) The teacher provides careful instruction on how to make the sound of the letter combination by demonstrating the mouth shape and movement. Students then practice by sounding it out many times.

(3) Following the directions written in the textbook (i.e., "Try reading the words below according to the following instructions in ①~③. ① Underline the letter combination of each word. ② Read the underlined parts. ③) Read the whole word."), students attempt to read many example words which have the same letter combinations, using their developing "word attack skills."⁹

(4) The teacher checks their pronunciation and corrects them.

By building on the sound alphabet, the students gradually learned all of the essential phonics rules in a step-by-step process in their first six months of English instruction. After finishing the phonics textbook, they were assigned to read new words and new passages in their English textbooks by themselves, with the teacher's occasional assistance. Therefore, the period of "phonics application" which followed their fundamental phonics instruction was considered to be a period of "reinforcement" as their word attack skills developed.

In general, students showed a strong interest in this instruction, and enjoyed reading unknown words by themselves in the sense of "playing a game." They were actually able to read most of their new words correctly. Therefore, the first 10 minutes in every English class were not at all an obstacle to the advancement of the curriculum, but an enjoyable warm-up period which students seemed to find stimulating.

The Assessment

Before and after the period of phonics instruction (i.e., in April and December), pre- and posttests in reading/listening and reading/speaking were administered, and the questionnaire was completed by students along with the posttests. The posttests were conducted about two months after actually finishing the phonics textbook so that the knowledge students had obtained from their phonics instruction could be reinforced and completely assimilated in this time.

In terms of the reading/listening test, for each item, the teacher read the word three times, each time pronouncing the part of the word to which a phonics rule applies differently. One of these pronunciations was the correct one. For example, the word "phut"¹⁰ was pronounced /pʌt/, /fʌt/, and /hʌt/. Students were required to listen carefully and choose the pronunciation which they thought was correct. Before the teacher began reading, students were given a few minutes to peruse all of the items in order to make preliminary guesses about their pronunciation. While the reading/listening test does evaluate the students' understanding of phonics rules, it is not a test of the students' pronunciation. Because the students must first read the test words to themselves before choosing the sounded word, this test does accurately examine the students' reading and listening abilities.

Because the reading/listening test does not examine the students' speaking abilities, the reading/speaking test covers this crucial missing element; i.e., the students' pronunciation. The reading/speaking test was conducted in an individual interview style with a student and two teachers facing each other across a table. The student was asked to pronounce each word printed on the test paper as clearly as possible, one by one, while the two teachers evaluated his or her pronunciation independently. Sometimes, as the need arose, students were asked to read certain words again more loudly or more slowly. Their pronunciation was graded from A to C.

The grading criteria are as follows:

- A: The student can read the entire word correctly.
- B: Though the student cannot read the entire word correctly, he or she can read the part of the word to which the phonics rule applies correctly.
- C: The student cannot read the part of the word to which the phonics rule applies.

Data Analysis

The results of these tests (i.e., pre- and post- reading/listening tests for the control and treatment groups and pre- and post- reading/speaking tests for the additional treatment group) were analyzed statistically to determine if significant progress resulted.

In terms of the reading/listening test, the pretest scores of the control and treatment groups (N=37, N=142, respectively) were compared using a *t*-test, as were the posttest scores. The gain scores between pre- and posttest scores for both groups were also compared using a *t*-test. In addition, the pre- and posttest scores of the treatment group were compared using a matched-pair *t*-test.

In terms of the reading/speaking test, the pre- and posttest scores of the volunteer group (N=12) were compared using a matched-pair *t*-test.¹¹

In terms of the questionnaire which was administered to the entire treatment group (N=179), the percentage of each question was calculated and a number of representative student comments were selected to illustrate their attitudes.

Results

The Reading/Listening Test

The results of the statistical analysis of the pretest scores for the control and treatment groups are as follows:

Table 1
Pretest Scores for the Control and Treatment Groups

Statistic	Control Group Pretest Scores	Treatment Group Pretest Scores	Mean Difference	t_{obs}
N	37	142		
M	11.11	10.61	0.50	0.76
SD	3.53	3.55		

$p < .01$

As Table 1 shows, the pretest means scores for the control and treatment groups were 11.11 and 10.61, respectively, a difference of 0.50. Results of a *t*-test for the pretest scores of both groups revealed no significant difference in abilities between the groups prior to phonics instruction ($p < .01$).

The results of the statistical analysis of the posttest scores for both groups are as follows:

Table 2
Posttest Scores for the Control and Treatment Groups

Statistic	Control Group Posttest Scores	Treatment Group Posttest Scores	Mean Difference	t_{obs}
N	37	142		
M	13.68	17.53	3.85	5.45*
SD	3.68	4.34		

* $p < .01$

As Table 2 shows, the posttest mean scores for the control and treatment groups were 13.68 and 17.53, respectively, a difference of 3.85. A *t*-test revealed a significant difference between the two groups after phonics instruction ($p < .01$).

The results of the statistical analysis of the gain scores between pre- and posttest scores for both groups are as follows:

Table 3
Gain Scores for the Control and Treatment Groups

Statistic	Control Group Gain Scores	Treatment Group Gain Scores	Mean Difference	t_{obs}
N	37	142		
M	2.57	6.92	4.35	5.45*
SD	4.04	5.26		

* $p < .01$

As Table 3 shows, the gain score means for the control and treatment groups were 2.57 and 6.92, respectively, a difference of 4.35. A *t*-test revealed a significant difference in the improvement of students' abilities between the two groups ($p < .01$).

The results of the statistical analysis of the pre- and posttest scores for the treatment group are as follows:

Table 4
Pre-and Posttest Scores for the Treatment Group

Statistic	Treatment Group Pretest Scores	Treatment Group Posttest Scores	Mean Difference	t_{obs}
N	142	142		
M	10.61	17.53	6.92	15.66*
SD	3.55	4.34		

* $p < .01$

As Table 4 shows, the pretest mean score for the treatment group was 10.61, whereas the posttest mean score was 17.53, indicating a gain of 6.92. Results of a matched-pair *t*-test for the pre- and posttest scores revealed a significant improvement in students' abilities ($p < .01$).

These results indicate that the phonics instruction provided to the treatment group improved students' ability to read in English to a significant degree.

The Reading/Speaking Test

The results of the statistical analysis of the pre-and posttest scores for the volunteer group who did the reading/speaking test are as follows:

Table 5
Pre-and Posttest Scores for the Volunteer Group

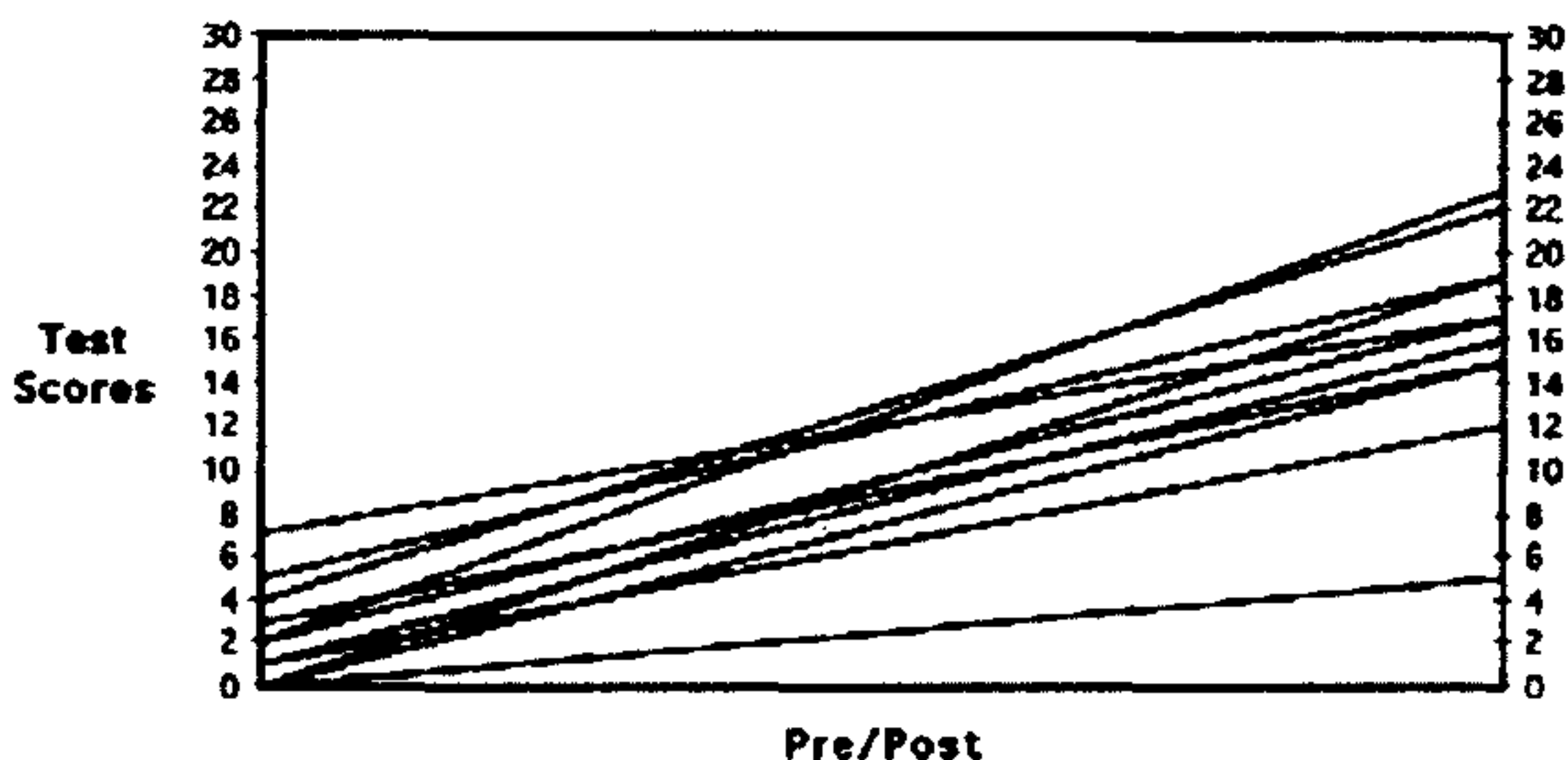
Statistic	Volunteer Group Pretest Scores	Volunteer Group Posttest Scores	Mean Difference	t_{obs}
N	12	12		
M	2.08	16.08	14.00	11.26*
SD	2.27	4.80		

* $p < .01$

As Table 5 shows, the pretest mean score for the volunteer group was 2.08, whereas the posttest mean score was 16.08, indicating a gain of 14.00. Results of a matched-pair *t*-test for the pre-and posttest scores revealed a significant improvement in the students' ability ($p < .01$). This supports the results of the first experiment, confirming that phonics instruction was a significant factor in enhancing the ability of students to read in English.

The following graph shows the improvement of the reading ability of each of the 12 students who took this test:

Reading Test



Finally, verification of rater judgements in the reading/speaking test was carried out with an interrater reliability study. The following chart shows the high reliability of the posttest scores between the two raters:

	Rater 1	Rater 2
Rater 1	1	
Rater 2	0.98	1

The Questionnaire

The results of the questionnaire are as follows:

- In terms of our phonics study, put on one of the following statements:
 - Phonics study has been useful to me. (146/179 81.6%)
 - Phonics study has not been useful to me. (0/179 0.0%)
 - I have no special impression about phonics study. (33/179 18.4%)
- If any of the following statements apply to you with regard to phonics study, put as many s as you like:
 - I am able to read words better than before. (166/179) 92.7%)
 - I am able to read English textbooks better than before. (137/179 76.5%)

•I am able to remember how to read the words whose pronunciation I have forgotten.	(83/179	46.4%)
•I am even able to read words which I have not yet learned, by guesswork.	(139/179	77.7%)
•I am even able to read sentences which I have not yet learned, by guesswork.	(87/179	48.6%)
•I have developed an interest or desire to read words which I have not yet learned.	(94/179	52.5%)
•I have developed an interest or desire to read sentences which I have not yet learned.	(78/179	43.6%)
•I now understand how to pronounce words.	(126/179	70.4%)
•I now understand how to make English sounds.	(71/179	39.7%)
•My English pronunciation has improved.	(84/179)	46.9%)
•Phonics study has been useful when writing words.	(104/179)	58.1%)
•I am able to memorize the spellings of words better than before.	(89/179)	49.7%)
•I am able to see the spellings of words in my mind's-eye when I hear the sounds of the words.	(48/179	26.8%)

3. Write any opinions or comments you have on your phonics study (sample responses translated from Japanese by this author):

In the beginning, I did not know how to read English at all, but through phonics study, I gradually became able to read words and sentences for myself. This made me very happy and now I love English!

Thanks to phonics, I can now read English words by using "English readings" though I relied only on "rômaji¹² readings" before. Phonics is useful not only when reading the English textbook, but also reading English in daily life.

Phonics study made my English pronunciation far better than before, and now I have a strong desire to read unknown words. I think this is really a great thing!

I was very surprised that the speed of memorizing the spellings of words was completely different between having learned phonics and not having learned it. I was lucky because I could study phonics!

The results of this questionnaire indicate that virtually all of the students felt that phonics instruction had been useful to them and that their reading abilities had improved. In addition, almost all the students wrote positive and constructive comments on their phonics study.

Conclusion

The purpose of this research was to investigate whether or not phonics instruction improves students' reading ability and enhances their desire to learn English. Through this investigation, it has been demonstrated that appropriate phonics instruction has a measurable effect on the improvement of students' reading ability and is also responsible for the cultivation of positive and enthusiastic attitudes towards English studies. In addition, the first 10-minute period of phonics instruction in every class for half a year neither delayed the progression of the regular English curriculum, nor was it a burden to the students. This study strongly indicates that phonics instruction can be a useful and effective teaching tool when used in conjunction with *Mombushô's* curriculum in regular English classes in Japanese junior high school.

At present, unfortunately, most Japanese students have difficulty maintaining their desire to learn English which is taught to them through the *yakudoku* method because they have to spend much of their energy and time translating English passages into Japanese and memorizing a great number of vocabulary items by rote. In addition, their *katakana* pronunciation discourages them from reading aloud or speaking English in public. English has long been a "memory subject" in Japan which requires strenuous effort, perseverance, and patience. English is often described as a subject which saps students' energies and motivation in Japan, and this stigma must be eliminated as soon as possible. As we have now entered the 21st century, the Japanese government has declared that communicative competence in English is extremely important for the future of Japan. They say the problem is where and how it should be placed in the present education system. However, the present system of English L2 education in Japan has many problems which must be solved first. One of the most crucial problems is in how English is learned at early levels of instruction; i.e., Japanese students learn English through Japanese, or by replacing it with Japanese, which is the typical feature of English learning through the *yakudoku* method. This way of learning English has delayed the progress of English education in Japan for many years, and it will be impossible to improve English L2 teaching in this country without changing this method and its concomitant attitudes towards learning English.

The key to solving this problem is phonics instruction. When students are able to read and write English letters and spellings directly, *katakana* will no longer be necessary; i.e., they will be able to read English, not with *katakana* pronunciation, but with a correct English pronunciation, and will be able to write English directly in the target language without using *katakana* letters. Eliminating *katakana* will thus bring new attitudes of trying to understand foreign languages as they are. It is imperative to read English with English sounds and to understand the language directly without translating it into Japanese when reading or listening to English. The habit of translating English into Japanese prevents smooth functioning in all language skills (i.e., reading, writing, listening, and speaking) because the translation takes time and stops the natural flow of communication. The implementation of phonics instruction in Japanese junior high schools will have a beneficial effect in changing the goals of learning English to a means of acquiring communicative skills rather than extracting knowledge from foreign culture which has long been the aim of *yakudoku* instruction.

Therefore, discarding the *yakudoku* method, which is the main tradition of English L2 teaching in Japan, will be the beginning of real English language learning in the pursuit of communicative competence. Phonics can save millions of Japanese students who lose their desire to study English at the beginning stage. They can overcome the most serious obstacles in the introductory period of English learning; i.e., being unable to read and write English because of an inability to connect sounds with letters (Inagaki, 1988; Nakajima, 1995; Teshima, 1995). Phonics instruction should be made compulsory at the introductory stage in English L2 teaching in Japan so that all first year students can attain these skills. Therefore, all English teachers of junior high schools should acquire the ability to teach phonics. In order to realize this goal, a teaching methodology for phonics should be implemented in the teacher training curriculum at university.

Though this study clearly shows the benefits of phonics instruction, because of the small size of the control group and this author's participation in the experiment, this study should be seen only as a first step in examining the effectiveness of phonics in junior high school classrooms. Using this model, further studies should be carried out on a larger scale and in a more controlled environment. It is hoped that this study can contribute to more comprehensive studies of phonics in the future.

Notes

- ¹ For example, the results of TOEFL from 1997 to 1998 show Japan ranking 205th out of 218 nations in the world and 24th among the 26 Asian nations (Suzuki, 1999, p. 2).
- ² Hino states that *yakudoku* is a deeply rooted sociolinguistic tradition in Japan, which dates back over a thousand years to when the Japanese started to study Chinese (1999, p. 45).
- ³ English instruction starts in the first year of junior high school in Japan.
- ⁴ Though phonics is commonly used as a teaching method in America, it is important to keep in mind the continuing debate between advocates of phonics and the "whole language" method. Whole language is not an instructional program, but rather a philosophy which aims to empower children as they learn to read. The concept is vague and assumes that phonics rules will be picked up by students in the course of reading stories. This "reading wars" debate has plagued American schools for decades, and according to Heilman (1998, pp. 20-21), it is a major hurdle in the fight against illiteracy in the United States.
- ⁵ The author of this paper was an English teacher at Yodo Junior High School and a Master's Degree candidate at Ehime University during this empirical study.
- ⁶ The rules used in this research can be defined as follows:
 - The "sound alphabet": the most representative or the most commonly used sound of each letter of the alphabet (i.e., /æ/ /b/ /k/ /d/ /e/ /f/ /g/ /h/ /i/ /d₃/ /k/ /l/ /m/ /n/ /ɔ/ /p/ /k/ /r/ /s/ /t/ /N/ /v/ /w/ /ks/ /j/ /z/), by which words can basically be read. Matsuka also calls this the "phonics alphabet."
 - "Magic E": when a word ends with the letter "e," the vowel just before it is read with its alphabet name and the letter "e" at the end is soundless.
 - "Polite vowels": when two vowels sit together, the first one is read with its alphabet name and the second one is soundless.
 - "Letter combinations": a combination of two or three letters representing a specific sound as a whole (e.g., ph, sh, th, au, aw, oo, ar, or, air, etc.).
- ⁷ This analysis was based on the vocabulary items in *One World English Course 1~3* (Sasaki, 1993), one of five major English textbooks in Japan, and all 1007 words, except for proper nouns and abbreviations that 1st, 2nd, and 3rd year students study, were analyzed to determine which phonics rules were applied most frequently in textbooks in order to assess which rules should be taught in class. Matsuka's phonics rules and method (1981, 1993) are adopted in this study because she is the leading expert on phonics research and its practice in Japan, and her research institute, Matsuka Phonics Institute, has achieved credible results and has published numerous phonics teaching materials.
- ⁸ Relatively unknown, though authentic, English words were chosen for the test, eliminating the chance of students' prior knowledge influencing their scores.

⁹ Phonics provides students with the techniques and motivation for "attacking" and deciphering words they are not familiar with, which is called the skill of "word attack."

¹⁰ According to the Longman dictionary, the definition of this word is "a dull sound as of something bursting" (1995, p. 1208).

¹¹ In this test, students who received a B were regarded as being able to read the word because they understood the phonics rule which was applied to the key part of the word. Then, the number of A's and B's was counted as a score for each student.

¹² *Rômaji* is Japanese written in Roman letters, and is different from English orthography and pronunciation.

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Appendix 1

Sample Pages from the Phonics Textbooks

Phonics

自分で英語が読める!

You Can Read English by Yourself!



() 中学校
Junior High School

1 年 () 組 () 番
1st Year Class Number

氏名 ()
Name

フォニックス (音声法) とは、
『文字の音を知って、文字の音をつ
ないで、単語を読んでいく方法』
のことを言います!

Phonics is "a method of reading words by connecting the letter sounds which you learn."

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1 音のアルファベット

The Sound Alphabet

まず、アルファベット 26 文字の『名前』(普通のアルファベット)と『音』(音のアルファベット)を覚えましょう。
First of all, let's memorize the "names" of the 26 letters of English (the regular alphabet) and their "sounds" (the sound alphabet).

a	b	c	d	e	f	g
h	i	j	k	l	m	n
o	p	q	r	s	t	u
v	w	x	y	z		

★ 母音の文字 (5つ) は、どれでしょう。
Which are the five vowels?
() () () () ()

なお、() と () もよく母音の役目をします。
Besides, () and () often play a role as vowels, too.

- 1 -

★ 以下の単語を文字の『音』(音のアルファベット)をつなげて読んでみましょう! Let's read the following words by connecting the sounds of their constituent letters; i.e., by applying the sound alphabet!

ant (あり)	bat (こもり)	bus (バス)	cat (猫)	cut (切る)
dad (父ちゃん)	dog (犬)	don (贈物)	end (終了)	fan (うちわ)
fat (脂肪)	fox (狐)	gas (ガスリン)	god (神)	gun (銃)
ham (ハム)	hip (股)	hit (殴る)	ink (インク)	jet (ジェット)
kid (子供)	lip (唇)	man (人間)	nut (木の果)	pal (友達)
pet (ペット)	pig (豚)	rat (ねずみ)	sun (太陽)	tax (税金)
tip (チップ)	top (こま)	yen (円)	wax (ろう)	zen (禅)
film (フィルム)	golf (ゴルフ)	hand (手)	milk (牛乳)	
pond (池)	pulp (パルプ)	slip (滑る)	vest (チョッキ)	
stamp (切手)	trunk (トランク)	zigzag (ジグザク)		

- 2 -

2 2つのルールと 21個の組合せ文字

2 Rules and 21 Letter Combinations

☆ 音のアルファベット通りに読めないときには、次のルールを活用しましょう！
When a word cannot be read completely by just applying the sound alphabet, let's apply the following 2 rules and 21 letter combinations!

※ **マジック E**とは文字と音の間のきまり、**礼儀正しい母音**とは独自の音を持つ(2文字または3文字から成る)文字の組合せを指します。
The term **Magic E** used here means the regulation between letters and their sounds, and **Polite Vowels** means two or three consecutive letters which represent a specific sound.

Rule 1	「マジック E」	"Magic E"			
Rule 2	「礼儀正しい母音」	"Polite Vowels"			
	ch	sh	th	th	
	ck	wh	ph	all(al)	
21 Letter Combinations	oo	oo	ou	ow	
	ew	au	ar	or	
	or	er	ir	ur	
	air				

マジック E から、組合せ文字の air まで順に一つ一つ学んでいきましょう！
Let's learn them one by one, from "magic E" to the letter combination "air"!

- 3 -

(1) 「マジック E」

Rule 1 Magic E

「阿部」という名前をローマ字で書くと Abe ですね。でも英語圏ではこれを「アベ」と読まずに「エイブ」と読みます。米国の第 16 代大統領の名前も Abe Lincoln でした。同じように、彼らは Ehime を「愛媛」(えひめ)と読まずに「エイム」と読みます。
これは一体どういうことでしょうか。どうやら文字と音の間に何か一定のきまりがあるようです。
つまり、**「マジック E」**のルールと読みます！
When you write the person's name "阿部" in romanji (i.e., Japanese written in Roman letters), it is "Abe." Can't it? But native speakers of English would not pronounce this spelling /abe/ as we do, but /eɪb/, as in "Abe Lincoln," the 16th President of the United States. The same thing goes with the spelling "Ehime," the name of our prefecture "愛媛"; i.e., native speakers would pronounce it /eɪm/, not /ehime/. What does this mean? Don't you think there is a certain set of regulations between letters and sounds? Yes, there sure is. Namely, **"magic E"**. This is called the rule of "magic E".

それでは、以下の単語を次の①～③の指示に従って読んでいきましょう。
① 「マジック E」に X をつけ、そのすぐ前の母音の文字を O で囲みなさい。
② O で囲んだ母音の文字を読んでみなさい。
③ その単語全体を読んでみなさい。
Well, then, try reading the words below according to the following instructions in ①～③.
① Put the mark X on "magic e," and circle the vowel just before it with the mark O.
② Read the circled vowel.
③ Read the whole word.

bake base bike bone brake bride cake came cape cave code
cone cope cube cute crane clone concrete date dime dine
dive dope duke dune drive escape eve fade fame fate file
fine five flake flame fume froze game gape gate globe
gave gaze grade grape grave hale haste hate haze hide hole
home hope Ike Jake Jane joke Jude juke June Kate kite
lake lane like line lone make mane mate mike mine mute
nine pale Pete pipe pole pope plane plate ride rope sake
sale same side Steve stove table take tale tape vine wake
wide wine zone

- 4 -

(2) 「礼儀正しい母音」

Rule 2 Polite Vowels

(2 番目の母音は礼儀正しく、1 番目の母音に黙って黙っている。)なお、(語尾の y と w は母音の働きをする。)これを「礼儀正しい母音」のルールと言います。
(The second vowel is polite so that it keeps silent and lets the first vowel talk.) Also, (y and w at the end of words play a role as vowels.) This is called the rule of "polite vowels."

それでは、以下の単語を次の①～③の指示に従って読んでいきましょう。
① 並列した 2 つの母音の文字にアンダーラインをしなさい。
② アンダーラインをした部分をルールに当てはめて読んでみなさい。
③ その単語全体を読んでみなさい。
Well, then, try reading the words below according to the following instructions in ①～③.
① Underline the two juxtaposed vowels.
② Read the underlined parts according to the rule.
③ Read the whole word.

aim bail bait brain claim faint gain grain jail Kaiko lain maid mail
main nail pail pain rail rain sail vain wait snail Spain stain train
Jamaica afraid

bay day ray bray dray fray gray gay hay jay lay clay slay play
pray pay May nay say spray stay tray stray way sway Sunday

bee fee Lee see beef beet beep coffee deed deep feed feel heel feet
flee free keen green greet peel peep seed sleep steep sweep sweet
tree weed week weep

eat meat tea team bead beak beam bean beat beast clean cream
dream heat Jean lead leaf leak lean meal mean neat pea peak read
sea seal seam seat speak

bow low mow row sow tow bowl blow flow slow crow grow
snow know follow hollow pillow yellow narrow sparrow window

- 5 -

(3) 21 個の組合せ文字

21 Letter Combinations

それぞれの文字の組合せとその音を覚えていきましょう！
Let's memorize each combination of letters and its sound one by one!

以下の単語を次の①～③の指示に従って読んでいきましょう。
① 組合せ文字にアンダーラインをしなさい。
② その組合せ文字を読んでみなさい。
③ その単語全体を読んでみなさい。
Try reading the words below according to the following instructions in ①～③.
① Underline the letter combination of each word.
② Read the underlined parts.
③ Read the whole word.

fun punch pinch bench chin chip chop chess chest
chill chase chime choke chain cheek cheap beach
peach reach teach ketchup chocolate chimpanzee

fish she ash cash dash dish mash rash rush wish ship
shop shut shot shoot sham shame shape shell shush
brush blush crash crush English

bank bath path math moth both Beth broth cloth
month tooth teeth thatch theft theme thin thing think
three throw thump

this that than the thee them then there their they thy
father mother brother these those thine bathe clothe
breathe soothe thou though

rock lock luck lack lick rick back cock dock duck
kick neck socks black clock rocket stock truck ticket
check chicken cricket mackintosh

- 6 -

to whom whose what when where which why
whack whale wheel wheat whim while whine white
whole whisky whether whistle

ronics alphabet dolphin elephant graph Joseph
pamphlet telephone phrase photo photographer
phenomenon philosophy Philip Philippine Philadelphia

ball call fall hall mall pall tall wall baseball
basketball softball small stall salt malt also alter
almost always already Albright almighty altogether

cook gook hook kook look mook nook rook
took foot good hood wood woof wool oops brook
crook shook stood

boo loo moo woo zoo cool fool food hoop loop
moon noon pool room root loot soon tool toot loom
broom poon spoon tooth cocoon platoon shampoo

louse mouse mouth south blouse ouch out
bout about doubt trout count foul pouch loud cloud
bound found hound pound sound round ground noun
announce denounce pronounce mountain thousand

cow bow vow how now wow down gown town
owl brown crown clown down tower power powder
flower bowwow kowtow chow-chow

mew few Jew Kew NewYork NewZealand
news knew blew flew crew screw drew Andrew
grew pew phew threw chew chewing gum

ustralia Paul Paula Laura Austin audio August auto
automatic autumn because daub daughter pause
sauce sausage astronaut Santa Claus

※ 以下は、すべて【rのついた母音】です!

The following are all "vowels with the letter r"!

card cart part apart depart chart smart start star
guitar Tarzan bar jar far farm arm army art ark bark
dark lark park mark market March hard yard garden

orca organ orthodox cord corn born horn morning
for form fork cork pork port sport passport sort short
stork storm horse north forth force forty porch torch

work worker word worm worry worse worst
worth motor mirror sensor actor doctor sailor
emperor visitor junior senior elevator escalator

herd per perm perch person Harper nerve serve
server germ Germany Berlin berg Bert Ernie fern
jerk term river tiger butter better letter summer
soccer teacher sister brother father mother yesterday

bird first third thirteen thirty dirt dirty sir fir firm
stir skirt shirt birl birch birthday chirp circus circle

Thursday fur further burst burn turn church curve
curtain curl hurl hurt hurdle nurse purse purple turtle
Saturn surfing murk murder murmur

air airport fair hair pair laird Blair Clair flair
glair stair upstairs affair repair airy dairy fairy
prairie