PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
The work upon which this publication was based was supported in part by a grant to the second author from the Japan Society for Promotion of Science. The publication does not necessarily reflect the views of the agency supporting the research.
EDITORIAL ADVISORY BOARD
1988-89

Beck, Diana
Commeyras, Michelle
Foertsch, Daniel
Hartman, Doug
Jacobson, Michael
Jihn-Chang, Jehng
Jimenez, Robert
Kerr, Bonnie
Kerr, Paul

Meyer, Jennifer
Moran, Juan
Ohtsuka, Keisuke
Roe, Mary
Schommer, Marlene
Scott, Judy
Stallman, Anne
Wilkinson, Ian
Wolff, Phillip

MANAGING EDITOR
Mary A. Foertsch

MANUSCRIPT PRODUCTION ASSISTANTS
Delores Plowman
Nancy Diedrich
Abstract

Japanese and American reading programs in kindergarten and the primary grades differ extensively. This is partly because the Japanese written language makes initial learning easier and later learning more difficult. In addition, bolstered by a long history of literacy, Japanese parents provide more uniform support for their children's academic progress than do parents in the United States. From classroom observations and discussions with school principals and teachers about their programs and their instructional goals, it is apparent that Japanese kindergarten programs feature social development and cooperative group activity rather than academic skills. Finally, unlike reading instruction in American classrooms, Japanese primary grade classrooms are organized for whole class reading lessons and are paced slowly to emphasize reading fluency and deep interpretation of text information.
LEARNING TO READ IN JAPAN

In education, as in business and industry, Americans are admonished to follow the Japanese example. Notably, Secretary of Education William Bennett recently asserted that educators should "look for principles, emphases, and relationships in Japanese education that are compatible with American values" (U.S. Department of Education, 1987).

Our goal in this paper is to understand the course of reading development in Japan, especially as it is conditioned by classroom organization and instructional practices, but also as it is influenced by Japanese language and culture. We will suggest aspects of the Japanese approach to early reading that seem effective and desirable and, therefore, which American educators might consider emulating. Conversely, we will suggest areas where the American way may be superior to the Japanese.

Our primary source materials for this paper are observations in about 40 kindergarten and primary classrooms and discussions with the teachers and principals. In addition, we read curriculum guides, descriptive and historical studies, and reports of educational research.

Educators in the United States and Japan drew on the same currents in educational thinking in the late nineteenth century. Later, educators in both countries were influenced by the ideas of John Dewey and the progressive education movement. With Japan's educational system devastated during World War II, American occupational forces rebuilt it according to American precepts. Despite these common elements, Japan's schools have been shaped by the country's language and culture, goals and values, and are unlike schools in the United States. American educators who hope to draw on Japanese educational ideas must first understand some of these influences.

Two languages could hardly be more different than Japanese and English. As we explain in the first section of the paper, this is a major reason for variation in the levels of reading competence reached by children in the two countries. Furthermore, the two countries differ in their attitudes toward independence, social responsibility, learning, and achievement. These attitudes influence child rearing practices and have led to one set of educational priorities and opportunities in Japan and another in the United States.

Some Features of the Japanese Language

Learning to read Japanese at first appears to be a relatively simple matter, particularly when compared with English. Japanese children's first school reading books are written in a notation called hiragana in which letters are placed in columns and are read from right to left. Periods mark the ends of sentences, and spaces are provided between word segments at first. More difficult books are written with word segments no longer separated and the hiragana is extended with Chinese characters.

There is a more limited range of possible words in the Japanese language than in English because there are only 112 different syllables in Japanese whereas English has about 3,500 (Suzuki, 1987). The smaller number of syllables means that homonyms are more prevalent in Japanese than English. For example, koshi can be a noun meaning one of three things, a minister, a lecturer, or a lattice. English contains homonyms as well but they are often spelled differently, such as plain, meaning either simple or flat land, or plane, meaning an airplane or a carpentry tool. In a comparable way, homonyms in Japanese can be differentiated in written language with different Chinese characters. In both Japanese and English, word meanings can be disambiguated using context, but context necessarily plays a larger role in Japanese because of the multitude of homonyms.

Learning to read Japanese requires recognition of 71 distinct hiragana letters: 5 vowels, 1 consonant letter, n, and 65 consonant-vowel letters. For example, ka, ki, ku, ke, and ko are each represented by a
single hiragana character. Unlike English, each letter corresponds to one sound, a syllable in the spoken language. Because of this regularity, once a child can name some letters, words formed from these letters can be readily identified. Research has shown that it is easier for children to segment spoken words into syllables, such as the word baby as /ba/ /be/, than into phonemes (/b/ /a/ /b/ /e/)--as the child trying to learn to read English must do--and that letters with one pronunciation (e.g., k as /k/) are more easily learned than are letters with several pronunciations (e.g., g which may be pronounced /g/ or /j/ and is silent when a word ends in gh or ght).

Since hiragana is a syllabic language and, with only a few exceptions, each letter corresponds to exactly one syllable, while English is a phonemic language and most letters have multiple pronunciations, it is no surprise that Japanese children begin learning to read at an earlier age than do American children. A 1969 survey of Japanese preschool children (Early Childhood Association of Japan, 1979) determined that 69% of 4-year-old children and 91% of 5-year-olds could read their own name and 32% of 4-year-olds and 76% of 5-year-olds could write their own name in hiragana. Muraishi (1972), testing over 2,000 4- and 5-year-old children, found that halfway through the kindergarten year 34% of 4-year-olds and 63% of 5-year-olds could read 60 or more of the 71 letters. In a retest, just before entrance into first grade, 88% of the 5-year-olds could read 60 or more letters. In a smaller but more recent study, Muto (1987), testing 60 3- to 6-year-olds, found that 20% of 3-year-olds could read some words and there was a rapid increase in reading hiragana by age 4, with performance above 90% by age 5. Uchida (1987) found that Japanese 5-year-olds could read a 64-word poem with natural intonation with only one or two errors. Tests of American kindergarten and first-grade children, by contrast, indicate that while 5- and 6-year-olds can identify letters, few are able to read connected text before receiving instruction in first grade (Durkin, 1966; Mason & Dunning, 1986).

Standardized beginning reading tests in the two countries also reflect differences in early reading ability. One Japanese test, the Standardized Japanese Reading Comprehension Test for Young Children, intended for 3.8 to 6.7 year old children, contains two sections that require reading. In a 24-item word-picture task, children have to choose the correct written word from three choices to match a picture, and in an 18-item sentence reading task, in which the last four items contain three-sentence paragraphs, children must choose the picture which best depicts a written description (e.g., birds sitting on a branch, birds eating, or birds flying). Five-year-olds are differentiated primarily on the word and single sentence items. A commonly used reading test for American children of the same age range, the Wide Range Achievement Test, contains letter recognition, letter naming, and word reading tasks. Five-year-old children typically do not read more than one or two of the words, and variation in their performance appears mainly on the letter identification task.

Japanese children get off to an early start in reading, but, compared to American children, slow down in the primary years. This may be partly due to differences in elementary school instruction, as we explain later, but is also due to the fact that the hiragana orthography does not encode all written information. Print that appears in newspapers, books, advertisements, and product labels is written in two other systems as well as hiragana. One system, katakana, a second scheme for transcribing speech, is typically used for foreign words and special effects. For example, in a children's story we saw the name of a toy duck written in katakana while the other words on the same page were in hiragana.

The other system consists of kanji, a nearly limitless set of Chinese characters. These are intermixed with hiragana in adult reading material. To illustrate the idea of mixing two writing systems in English, Suzuki (1987, p. 25) suggests that the English-speaking reader imagine that all loan words from Greek are written in the Greek orthography and mixed with Roman letters. For example, "I like Beethoven's Choral symphony," would appear as "I like Beethoven's \( \chi \\bar{e} \bar{r} \alpha l \) \( \sigma \bar{u} \bar{i} \bar{a} \bar{m} \bar{a} \bar{m} \bar{a} \) \( \chi \). This is the way kanji and hiragana are mixed in written Japanese.

The Japanese Ministry of Education, Science and Culture stipulates the kanji that are to be taught to children, beginning with 76 characters in first grade and more in the higher grades, until nearly 2,000 have been taught by the end of high school. Children's first introduction to kanji in one first grade text,
for example, a story title includes the kanji character for mountain, and the characters for sun and moon appear in the body of the text, intermingled with hiragana.

Recognizing a kanji character does not insure knowledge of its pronunciation or meaning. For example, the basic meaning of 日 is sun or day and could be pronounced as hi or nichi, ni or jitsu. When combined with another character standing for fall or go down, it becomes 寧 2, which means setting sun and is pronounced nichibotsu. Another word is formed when the character for sun is combined with the one for gate doors 門, which means between or time between or space between, and one pronunciation is aida. Characters have more than one pronunciation because they were borrowed over the centuries from China, so successive Chinese pronunciations have been incorporated along with a Japanese pronunciation. Most kanji characters have more than one pronunciation.

While difficult to learn, Japanese educators and scholars consider kanji essential. Without them the language would be too homophonic. Chinese characters provide the needed disambiguation, with the result that "in their speech the Japanese are heavily dependent on the graphic image of the word that is stored in their minds. This means that unless the Japanese know how the word is written it is often difficult for them to understand what is said" (Suzuki, 1987, p. 16). Even educated adults find a pocket Japanese dictionary to be a useful resource, and it could contain as many as 11,000 characters. Japanese people continue to learn new kanji throughout their lifetimes.

We speculate that differences in the difficulty of Japanese and English may influence the curriculum emphasis in Japan and the United States. The fact that hiragana are easy to learn to read may allow Japanese kindergarten teachers to focus on music, art, health, nature, communication, and social skills in kindergarten instead of on reading, and first grade teachers need only review letter sounds and can feature text recitation and text level comprehension. The fact that English, by contrast, is difficult to learn to read may be one source of pressure on American kindergarten teachers to introduce letters and letter sounds and first grade teachers to emphasize phonics, word recognition, and word-sound analysis. As a consequence, reading comprehension and text interpretation usually get less stress until the later grades in the United States.

Support for Literacy in the Japanese Home

To the surprise of the American visitors, Japanese children generally are not instructed in hiragana during kindergarten. In fact, in none of the nearly 40 kindergarten classes we visited did we observe direct hiragana instruction, nor were children expected to read or write letters or words in hiragana. A 1986 survey by the Japanese Ministry of Education, Science, and Culture, found that only 12.7% of kindergartens give any systematic instruction in hiragana letters, while 72% promote an interest in letters informally. Questions we asked teachers elicited the belief that hiragana are so easy to learn that children's acquisition of written language is "spontaneous."

At first, not entirely convinced that 5-year-old children could read hiragana, we determined to test a few children enrolled in two very different kindergartens and also assess whether they begin to read, as many American children do, by recognizing common signs and labels (Mason, 1980). We tested children's ability to read part of a story in hiragana, to read common words that frequently appear on signs in kanji, and then to read the sign words in hiragana. While most could read the words in hiragana, none of the children attending a child-centered kindergarten and only a few of those in a kindergarten that offers instruction in kanji could read any of the kanji sign words. These results suggest that, unlike American children, Japanese children begin reading without relying on commonly occurring signs and labels.

Most of the children we tested could read a portion of a story and the sign words in hiragana, despite the fact that hiragana is not taught in either kindergarten. This is the pattern documented in larger studies. A 1986 Ministry of Education, Science, and Culture study, showed that a high proportion of
Japanese children can read, though fewer can write, *hiragana* before entering first grade (see Table 1). And, as we have already indicated, Japanese kindergartens seldom teach *hiragana*.

[Insert Table 1 about here.]

One must suppose that Japanese children learn how to read *hiragana* at home. It is perplexing, therefore, that Japanese parents seldom report teaching their children how to read. A recent survey indicated that only 15.6% of parents of 5-year-olds considered themselves to be teaching their children *hiragana* (Uchida, 1987). It is possible, however, that they had taught them earlier or were supporting letter and word identification, and story reading informally. Japanese parents typically purchase materials that are intended to help their child learn. These include letter blocks that have *hiragana* on one side and a picture on the other, card games that offer letter- and word-picture matching activities, letter and picture story books, and magazines.

The use at home of letter blocks, games, and books is common in the United States as well, of course. What appears to be different is the volume of materials that Japanese families provide their children at home, particularly magazines, and the amount of time they arrange for their children's academic preparation. Parents typically purchase inexpensive picture books, games, and monthly magazines for their children.

Picture books in hard and soft covers are available in most book stores in Japan. Magazines can be purchased at newsstands and through the schools and are very popular. Different magazines are published for 2- to 4-year-olds, 4- to 6-year-olds, and then for children at each grade in school. For instance, a magazine for 2- to 4-year-olds contains large size pictures of TV characters, picture stories for parents to read aloud, numerals with objects for children to count, pictured descriptions of plants and animals, labeled food items and songs, and information for parents to read. A magazine for 4- to 6-year-olds has labels and stories in *hiragana* for children to read, words to be matched with pictures, caption stories about TV characters for children to read, harder stories for parents to read aloud, and drawing, tracing, writing, science, and counting activities.

Based on a 1986 estimate that there are 4.5 million 3- to 5-year-old children in Japan and publishers' estimates of the number of publications for preschool children, Japanese parents purchase an average of 21.5 magazines and 9.5 picture books each year for 3-, 4-, and 5-year-old children. Upon examining these books and magazines, we realized that we had finally found a source of easy-to-read *hiragana* print that capitalizes on children's interests and is available to most children.

Comparable age-graded books are readily available but more expensive in the United States. A high quality hard-cover book costs $4-$5 in Japan but $10-$14 in the United States. A few magazines that promote reading and writing are available for preschoolers in the United States (e.g., *Sesame Street*), and paper-backed book clubs are encouraged. Though figures on sales or readership in the United States are not available, our belief is that there is less demand for children's books and magazines in the United States than in Japan.

Private lessons and instruction in a *juku*, or academic preparatory school, provide another avenue for learning to read in Japan. A 1979 Ministry of Education, Science, and Culture study, revealed that 54% of 4-year-olds and nearly all 5-year-olds in regions surrounding Tokyo have private lessons such as drawing (25%), gymnastics (18%), piano (14%), English lessons (11%), or a *juku* (11%). The 1987 U.S. Department of education report estimates that 6.2% of all first grade Japanese children, increasing to 47.3% by the ninth grade, attended a *juku* in 1985. The figures for children in United States are certainly much lower, but exact numbers are not available.

According to T. Shiomi, a University of Tokyo professor of child language, about 200,000 preschool children currently attend the *Kumon Juku*, the biggest private academic after-school program in Japan. It features a practice-oriented curriculum, beginning with picture-word matching, tracing on a line, and
copying letters. Later materials include books to read. Overall, juku instructional methods vary from programmed self-instruction to small ability-grouped sessions and periodic assessment of progress. Jukus play a major educational role to help children keep pace with classmates, for remediation, and in preparation for school entrance examinations. Increasingly, with so many children attending a juku, it also provides after-school contact with friends (U.S. Department of Education, 1987).

The remarkable emphasis in Japan on early education may be explained in two ways. Japanese mothers take very seriously their role of guiding, coaching, and training their children for educational advancement, a role that begins by preparing the toddler for entrance into a good kindergarten, observing the child in school, working on lessons with the child at home, shuttling the child from school to exercise, music, and art lessons, and preparing elaborate, healthy box lunches for the child to eat in school. When the child is older the mother arranges for additional private lessons, helps the child with homework, and supports the child during difficult examination times.

Kindergarten teachers in the Tokyo region revealed to us that mothers compete with one another regarding their child's progress in learning to read and write. Simmons (1987), an American writer who lives in Tokyo, says in an article about kyoiku mamas, or "education mothers," that "Most Japanese mothers feel ashamed if their children do not do well at school."

One reason that parents emphasize early learning is that while 88% of Japanese children graduate from high school, there are not enough places for them in universities. Only about 29% are able to enter a university or junior college and about 25% enter a vocational program. According to Simmons, "[A mother's] goal is clear: success in entrance exams, a good school, a good college, and a good job. (For daughters the goal has a twist: good schools led to good husbands.)" She describes one mother whose twin girls were admitted to a prestigious private school as saying, "It's as though I have received a long-distance ticket to life."

Competition to get into well-regarded private high schools is intense, since a larger proportion of private than public high school graduates are accepted by prestigious universities. In turn, attending elite elementary schools makes admission into the affiliated private middle and high schools more likely. But in order to get into the best elementary schools, children must do well on the IQ, reading, and math tests used for screening and admission. Mothers try to insure that their children receive a good preparation for these tests during the kindergarten years.

Thus, although parents also say that children should acquire literacy spontaneously (Uchida, 1987), the cultural press for achievement is all but irresistible. If mothers are to fulfill their duty to produce successful students, they must get their children started down the road to literacy at an early age.

Beyond parental commitment, education "is reinforced at every turn by the historical and cultural heritage, community consensus, government policy, and the needs and employment practices of business, industry, and government" (U.S. Department of Education, 1987, p. vii). Literacy has been important in Japan since the 1600s, with practical training in reading, writing, and arithmetic offered in temple schools (as many as 14,000 temple schools by 1800, according to the U.S. Department of Education report). Then, in the middle 1800s (the beginning of the Meiji period) the government built a universal educational system after sending out groups to study Western educational systems and inviting leading educators into Japan. This system, although disrupted during and after the war years, has been maintained to this day. There is no similar longstanding commitment to literacy among the various subcultural groups in the United States.

**Literacy Development and the Japanese Kindergarten**

Japanese kindergartens, or yochien, have their own buildings, play areas, and administrative staff and serve 3-, 4-, and 5-year-old children. Classes are larger than those in the United States, with as many as 20 three-year-olds, and 30 to 40 4- or 5-year-olds managed by one teacher. School days typically last
from about 9 a.m. until 1 p.m., and children frequently eat lunch in school. In 1986, according to Ministry of Education figures, 58.4% of yochien were private and 41.6% were public, with about 46.7% of Japanese children attending them, 64.5% if considering only 5-year-olds. Whether public or private, however, the costs are borne by parents.

Families who cannot afford a yochien may send their children to day care centers, or hoikuen, with costs borne by the government. Thirty-five percent of 5-year-olds attend these centers. According to the Ministry of Health and Welfare, curriculum of day care centers is almost the same as that of kindergartens. Combining the percentages of children enrolled in day care centers and kindergartens, more than 99% of Japanese 5-year-olds go to school before first grade. In the United States, most kindergartens are public and free, with 94% of 5-year-olds attending. No figures are available in the United States for private kindergarten attendance.

The declared aim of early education in Japan is the promotion of sound minds and bodies through a well-rounded approach. According to the Ministry of Education, Science, and Culture, "[W]ell balanced teaching plans should be made and enforced by choosing and arranging appropriately desirable experiences and activities of young children with the prospective insight into the whole teaching items during the entire period of education" (Ministry of Education, Science, and Culture, 1981, p. 3). Children's interests should be emphasized, while promoting six areas: health (development of healthy habits), society (development of good social habits), nature (nature appreciation), language (understanding, communication, and appreciation of picture books), music and rhythm (interest and enjoyment of singing and rhythmic movements), and arts and crafts (expression, experience, and enjoyment of drawing, painting, and use of craft tools). Most of the teachers we interviewed interpreted the guidelines to mean that they should provide a range of materials and activities for children and should encourage rather than require participation.

We saw these guidelines interpreted in three types of kindergarten programs. The most common type allows children to learn through a balance of child-selected play activities and teacher-selected learning activities. These balanced programs have teacher-planned learning centers with occasional whole class activities (e.g., art, music, science, and story listening). Children are encouraged to explore the materials, play with one another, and help one another.

A second type of kindergarten program espouses a child-centered approach in which children's unique interests are encouraged through cooperative play, and inventive use of art, music, and other materials. Here, children spend little time in whole group activities, and both the classroom and outdoor facilities are arranged to foster independent activity and cooperative play.

A third type of program is based on the presumption that young children realize a special benefit from early introduction to Chinese characters and memorizing classical texts (Ishii, 1987). Teacher-directed lessons are organized for introducing kanji and children recite and practice words, poems, and stories.

Although diverse approaches resembling these can be found in American kindergartens, child-centered and balanced programs are less common today. Americans seem to be suspicious of the value of playing in school, and doubts are voiced about the value of informally organized, holistic reading and writing programs. Moreover, without a clearly articulated alternative program, kindergarten teachers are turning to teacher-directed reading programs. Durkin (1987) found that kindergarten teachers in the Midwest, for example, allotted only 19% of the school day for child-directed play and informally organized work activity. All of the kindergarten lessons she observed used commercial letter and letter-sound reading materials. The two most frequently taught activities were naming letters and identifying letter sounds.

Reading and writing could be observed in all of the Japanese kindergartens we visited, but with different instructional approaches. In the balanced type of kindergarten, teachers encouraged but did not require reading and writing. There we saw 5-year-olds using paper, plastic, wood and nails, and
small boxes to make wild animals, fences, and trees for a classroom project of a zoo. Children were at tables, cutting, pasting, pounding, and painting to produce three-dimensional objects and a few were writing signs and labels. Later, since it was a rainy day and outside play was not possible, the teachers arranged a game in the all-purpose room and suggested that the children construct cards inviting the four-year-olds to visit their classroom and see their zoo. The cards included pictures, written messages, and children's names. A class of 4-year-olds was listening to a song about rain and then drew a picture of the mountain, rain, and a bear. A class of 3-year-olds had just made and decorated paper capes and had put them on in preparation for a play.

On the wall in the 5-year-olds' classroom in the balanced kindergarten were many pictures that included children's ideas in writing. For instance, children had drawn pictures of a father's day event. Some had added captions, or the child had dictated the caption while the teacher had done the writing. Also displayed were children's wishes written on slips of paper in preparation for a July 7 celebration, child-made puppets ready for use with stories they would compose to celebrate each others' birthdays, child-drawn portraits of fathers, child-composed descriptions of fathers, and calendars in every room that had been made by the previous year's 5-year-olds. In addition, teacher-made signs on the walls such as right and left, and commercially-made letter/picture cards, books and other written materials were available for children to read or play with. Thus, a large number of children's projects and play materials included printed information and were leading children into reading and writing.

In the child-centered Japanese kindergarten we visited, the teachers did not appear to take any deliberate steps to encourage reading and writing. In one school, children were involved in activities of their choosing in the classrooms, such as playing in the sand, swinging, picking clover flowers, building a fort out of blocks, or sliding down a large cement slide.

One teacher had arranged for children to paint with straws. Several paint colors were available for children to dip their straws into and then smear or blow onto paper. After children who chose the activity finished a picture, the teacher wrote their name on it, and the children ran back outside to play. An occasional child was reading, but most were engaged in play with friends or using art materials that the teacher had provided. One child at this school was observed writing. He had used large blocks to construct a restaurant and had made a sign in hiragana that said, "Chinese Fried Noodles 1,000 Yen." He and a friend cut up dozens of paper strips for noodles but got no customers. Later he put up another sign that read, "Closed."

In a Japanese school featuring direct instruction in kanji, we observed children playing outdoors until everyone had arrived. Then all the children formed into lines by classroom, and teachers led them in 30 minutes of exercises, dancing, and singing. In the lessons that followed, one for 4-year-olds began with role call and children read everyone's name in unison from kanji cards. On a second pass through the cards, the children called out when they saw their own names. Next the teacher distributed workbooks and had children tear out 10 kanji cards associated with the story for that week. Each card had a character on one side and a descriptive picture on the other. After children studied the cards, they were asked to match a character from the board with one they had. Another teacher presented a lesson on the kanji characters for rain, cloud, wind, thunder, and blue sky. The characters were named over and over, in different orders, and related to actions that children acted out.

A lesson for 5-year-olds involved reading a story together and then listening as the teacher read it deliberately making mistakes. When children detected an error, they ran up and told the teacher what her mistake was. Next they practiced unison reading of the new kanji cards and reviewed words from the previous story.

Other 5-year-olds recited Chinese poems that were written completely in kanji, some of which were archaic and not known by college-educated Japanese visitors in the room. Following the recitation, the children named kanji characters from the story that were written on large flash cards.
The kanji lessons we saw at this kindergarten lasted for nearly an hour. We were told that typical lessons last for half that time. Extra time was provided on the day that we visited so that we could get a more complete picture of the approach.

In two of the three programs we observed it was refreshing to see how kindergarten children could be intensely involved in projects through cooperative work and play activities and could be learning about reading and writing as an integral part of their school day. While activities appeared to be completely under the control of children, a discussion with teacher and principals revealed which carefully organized monthly goals behind them, which involved time-consuming planning, selection of materials and projects, and a sequenced introduction so that children would be drawn into learning about particular topics.

This approach, in our opinion, deserves a reconsideration in kindergartens in the United States. Although child-directed programs are espoused in the field of early childhood education and used in many preschools, with the press for early reading achievement, direct instruction methods are more popular now in kindergartens. Perhaps this is because kindergarten children appear not to be learning with indirect methods, or perhaps their teachers do not realize the extent of curriculum planning and organization needed and so are not using the approach effectively. With current, unresolved struggles in the United States between opposing methods of early instruction (e.g., holistic approaches versus direct instruction methods), viewing Japan's kindergartens and understanding how the curriculum is planned and set up could be a valuable enterprise for American educators.

Reading and Writing Instruction in Japanese Primary Schools

The first thing that strikes an American visitor to a Japanese primary school is that teachers use whole-class instruction almost exclusively, and that they do this despite the fact that classes are very large. There were 3 to 40 children in the first and second grade classes we observed. Nationwide figures indicate that this size is typical (Ministry of Education, Science, and Culture, 1982, p. 55).

The tradition of whole-class teaching and the large size of classes appear to influence many aspects of instruction. Notably, these factors seem to affect the pace of instruction. One's first impression is that instruction is rapid fire, with little lost motion or waste time. We remain confident that there is a sense in which these impressions are accurate. Yet the realization eventually dawned on us that progress through stories is very slow. In one first grade class, for instance, we saw an entire 40 minute period spent on 29 words [or 15 wakachigaki segments] describing a single episode from a 252 word [141 segment] story. We were shocked when a second-grade teacher whom we had seen teach an excellent lesson informed us in an after-school interview that his class covers about two stories a month.

The textbook used in this Japanese first grade contained nine stories and six expositions and an average of 129 words per text. In the second grade textbook, there were seven stories and four expositions, with an average of 312 words per text. Subsequently, a comparison of Japanese textbooks with the best selling American textbook series confirmed that American books are much longer. Books from the American series that would normally be completed by the end of the first grade contained 20 stories and 5 expositions (and an average of 481 words per text), while the books to be completed in the second grade contained 30 stories and 8 expositions (and an average of 682 words per text).

It would be a mistake, of course, to assume that the number of different words read during teacher-guided lessons is equivalent to amount of learning. But, in the United States, at least, the two are correlated (Barr & Dreben, 1983). Moreover, in the United States, the number of words read per week is sharply differentiated according to ability. In a study of 60 classrooms in several parts of the country, Allington (1983) found that low- and high-ability first graders read an average of 400 and 1,100 words per week during school, respectively. The figures Allington obtained for low- and high-ability fifth graders were 4,400 and 6,900.
In Japan, the treatment of stories is exceedingly thorough and methodical. A desirable consequence is that the series of lessons covering a story ought to give a class not only a truly deep understanding of that story, but also a comprehensive demonstration of how to interpret written information. No doubt, however, the slow pace has some less desirable consequences. It means less variety in vocabulary, story structure, and content. It means less experience reading new and different text afresh for the first time. It may mean that student attention is held less well by the intrinsic interest of stories, forcing teachers to depend, instead, on pedagogical tricks.

Why is the rate of progress through stories in Japanese classrooms slow by American standards? We propose two possible explanations. One reason for the slow pace of instruction is that the goals of reading instruction in the typical Japanese classroom may differ from those in the typical American classroom. We will discuss this possibility later, in the section on the goals of reading instruction.

A second possible explanation for the slow rate of progress through stories in Japanese classrooms is a need to accommodate less advanced children within the framework of whole-class lessons. Even though, as we have already recounted, most children can read text written entirely in hiragana at a rather high level of proficiency before they enter first grade, all children must sit through basic hiragana instruction in which letter to sound correspondences are reviewed and the correct written forms are practiced. This takes two to three months. During this period most children learn things they do not know about writing hiragana, so the time is not wasted for anyone. Nevertheless, average and certainly advanced students must receive a considerable amount of needless review. Teachers are aware that most children can already pronounce hiragana words when they enter first grade, but they said that because of variations in ability they are obliged to proceed as though the entire class needed a basic introduction.

After the early months of the first grade the pace during Japanese reading and writing lessons remains slow, again we conjecture, in order to make it possible for less advanced students to keep up. Teachers justified the methodical pace and several other time-consuming practices, such as repeated oral reading of the same story episodes, in terms of the presumed benefits for the slow student. A second-grade teacher explained to us that he determines the pace of instruction by keying on a particular "low-middle" student. He plans lessons by visualizing points this student may have difficulty understanding, and as he teaches the lesson he keeps an eye on this student's attention and comprehension, in order to gauge whether follow-up questions or activities are needed.

That practices intended to help the low to middle student may be successful is suggested by the fact that 86% of the Japanese first graders participating in a cross-national study were at or above grade level in reading comprehension. This compares with 57% of the American first graders in the study. What is more, according to Stevenson, Lee, and Stigler (1986, p. 229), "A remarkably small percentage of Japanese first graders were among those with the poorest reading comprehension." Undoubtedly, the highly regular letter-to-sound correspondences of hiragana and the literacy support that families provide are important factors in Japanese children's early success in reading, but teaching practices probably make a contribution, too.

While it presumably helps the less advanced child, the deliberate pace of instruction in Japanese classrooms may place a damper on the reading achievement of more advanced children. Stevenson, et al. (1986) reported that somewhat fewer Japanese than American first graders obtained very high scores in reading comprehension. These trends were exaggerated by the fifth grade. There were still more American children with low scores, but now there were many more American than Japanese children with very high scores as well.

One explanation for the fact that a relatively small number of Japanese fifth graders scored beyond grade level is that they must know large numbers of kanji in order to comprehend grade-level texts fully, and indeed must know kanji that have not even been introduced in school yet to comprehend
above-grade-level texts. Nevertheless, it is a reasonable hypothesis that the small number of high-scoring Japanese fifth graders reflects in part the slow pace of instruction in Japanese classrooms.

In the United States, children in a class are almost always divided into small groups for reading instruction. There are usually three groups: a low-ability group, a middle-ability group, and a high-ability group. Every day each group receives a 20 to 25 minute lesson from the teacher. Meanwhile, the remainder of the children work on individual written assignments at their seats.

Because of the practice of ability grouping within American classrooms, children who are advanced in reading receive instruction that moves at a faster pace and is qualitatively different from that received by average and below average children in the same classrooms (Allington, 1983; Hiebert, 1983). In theory, within-class ability grouping is supposed to allow teachers to provide an optimum pace for children of every level of ability. In practice, the best available evidence suggests that it helps high-ability students but not low-ability students (Anderson, Hiebert, Scott, & Wilkinson, 1985).

Therefore, in the spirit of an hypothesis, we offer the tentative conclusion that reading and writing instruction in Japanese elementary schools, while rationalized in terms of the goal of "deep reading" [see section on goals of reading instruction], ends up favoring the slow student. In American elementary schools, the practice of ability grouping and the belief in rapid reading and coverage of material, means instruction that favors the fast student.

Most American primary teachers would find it daunting to teach a 40-minute, whole-class reading lesson, but Japanese teachers do it every day. We saw several first and second grade lessons of this length in which attention was maintained rather well from beginning to end. We even saw one first grade teacher successfully teach two reading lessons to the same class, in back-to-back 40-minute periods with a 10 minute recess in between, something he did once a week.

The first idea to get rid of is that whole-class instruction is feasible because Japanese children are "naturally" well-behaved and attentive. Our observations proved to our satisfaction that Japanese children are as high spirited and liable to distraction as children anywhere. Instead, we believe the secret of the successful whole-class instruction we saw lies in teaching techniques that Japanese educators have evolved. These techniques would not be completely foreign to American primary school teachers, since they do use whole-class instruction in subjects outside of reading. Still, we believe that most American teachers would definitely feel they had learned something if they had the chance to sit in on a Japanese reading lesson.

A Japanese reading lesson can be described as a kaleidoscope of activities. Many different activities take place during the course of a lesson. Any one activity seldom lasts more than a few minutes, although there usually are recurrent patterns. In other words, some activities are repeated several times in cycles. Below are examples of activities we observed during one lesson or another. In fact, the majority of these activities occurred in every lesson we witnessed.

* Teacher reads aloud
* Class reads aloud in unison
* Individual students read aloud
* Teacher evaluates quality of oral reading
* Class evaluates quality of individual oral reading by clapping
* Class reads silently
One reason for the variety of lesson activities is to serve multiple goals. This is a matter to which we will return. The second reason is to sustain children's attention. This we will consider now.

Teachers informed us that they often shift to a new activity when they sense that the class is getting restless. The rationale was that variety itself is an antidote to boredom. Activities such as singing and, particularly, unison oral reading may seem quaint and of dubious value to some American teachers, but we saw them in every lesson we observed. One first grade teacher maintained that activities that involve every pupil responding, such as unison oral reading, are one of the best means available for recapturing attention. We did see classes calm down and get back to work when the teacher switched to an activity that actively engaged everyone in the class.

Activities that called for every pupil responding were observed throughout most lessons, but understandably became more frequent near the end of the period. This is when singing was most likely and when students were likely to be asked to come to the front of the room to act out a scene from the story. The children obviously enjoyed these dramatizations and sometimes got involved to the point of being boisterous.
The classes we observed were somewhat stiff and formal at the beginning and then loosened up as the lesson progressed. Maybe this is the way it always is, or, more likely, the presence of visitors and a TV camera made the children and teachers tense. In any event, early in the lesson in some classes, children stood when they read aloud or answered a question and then took their seats again when they had finished. Later, children continued to raise their hands, but sometimes they remained seated as they took their turns. At several points in every lesson we saw, there were a number of children frantically waving their hands and clamoring for attention. At these times, the children in some classes began to speak out freely without waiting for the teacher's acknowledgement. One teacher would permit free turntaking for awhile and, then, if it became difficult to hear because several children were speaking at once, he would model one-at-a-time turntaking by raising his own hand. The teachers seemed to differ in the degree of informality and the noise level that was comfortable for them.

Other variations in turntaking involved groups of students. In a first grade class, children were volunteering words associated with each of the four seasons. A couple of times, as a variation on individual turns, the teacher asked all of the children who had something to contribute to stand. Each child said his piece and then sat down. In the same lesson, the teacher seized the opportunity to review the correct form of hiragana characters that had not yet been taught using words that were volunteered. The children in the class whose names contained the character were invited to write the character on the board. The class evaluated who had done the best job, the teacher emphasized the features of the correct form, and then had the children practice the written movements in the air.

In a different first grade class, we saw two small-group discussions of a few minutes in length, integrated within the whole-class lesson. The teacher asked a question and asked the children to turn to one another to discuss the answer. Before they started talking, the children joined hands briefly. The purpose of this, the teacher explained later, was to orient the children toward each other. Like the variation in activities, the shifting patterns of turntaking seemed to help maintain attention and intellectual involvement.

The classes we observed were attentive most of the time. We occasionally scanned each class and calculated the percentage of children who appeared to be "on task." The percentage was usually 80 or higher. To be sure, there were moments when large numbers of children were inattentive, and a few times we witnessed misbehavior, such as boys pushing and shoving each other or throwing wads of paper. Nonetheless, our impression is that the level of attention was high most of the time, about at the same level that it is during small-group reading lessons in the United States.

However, we venture the opinion that, all things considered, more productive use is made of time during Japanese than American reading lessons. The reason is that time is wasted at several points during American lessons. One such place is moving to and from the small reading group. The biggest unproductive use of time in American classrooms, though, is "seatwork," the individual assignments children complete while the teacher leads small reading groups. Sometimes of dubious educational value, this seatwork is often poorly integrated with the rest of the lesson, and it is known that children working alone at their seats are not as attentive as those working under the immediate supervision of the teacher (Anderson, 1984; Osborn, 1984; Rosenshine & Stevens, 1984). In contrast [with one exception] the individual assignments we saw Japanese children complete at their seats were closely integrated with the lesson and the teacher walked around the room checking the assignments while the children worked on them. However, [again with one exception] the assignments never took more than a few minutes whereas, in striking contrast, the American child spends an hour on seatwork during the typical reading lesson (Anderson, Hiebert, Scott, & Wilkinson, 1985).

Oral Reading in Japanese Language Lessons

To an American educator, there is a quite extraordinary emphasis on oral reading in Japanese first and second grade classrooms. Each brief passage from the current story was read aloud several times in every classroom we visited. Mr. Sasaki, the first-grade teacher, informed us that his rule of thumb was
that every passage should be read aloud five times. An old saying in Japan is, "Read it again and again and you will realize its meaning." Norinaga Motoori, the famous linguist of Japanese in the Edo Period, said, "You should read it five times without being in a hurry for its meaning." These uses of the term "read" refer to oral reading. As a rule, in American primary classrooms, a passage is read aloud once by a single student. In some American classrooms, even first grade classrooms, the children almost never read aloud.

In contrast, we observed a cycle of oral reading in Japanese classrooms that usually included the teacher reading a passage to model correct pronunciation, phrasing, and expression; the class reading the passage in unison; and, several children reading the same passage in individual turns. Usually, there were activities, such as discussion of the meaning of the passage, interspersed between readings, and there were other variations. In one first grade, for example, we experienced the cacophony of all 36 children reading aloud "individually" at the same time. That is to say, they were not reading in unison, but instead each child was reading at his or her own pace. Later, the teacher informed us that he prefers simultaneous individual oral reading, because during unison reading students who cannot keep up with the pace may follow classmates instead of actually reading themselves. He also explained that reading aloud helps beginning readers imagine the ideas.

One of the few occasions during which we saw silent reading was in a second grade class. The class was reading a rather difficult exposition describing the stages of development of swallow hatchlings. The teacher asked the children to reread a passage silently and underline words they did not know. [Actually, the words were "sidelined," as the Japanese text was written in columns and read from top to bottom.] Then, she led a discussion clarifying the meanings of the unfamiliar words. When the class could not provide a satisfactory definition, she offered hints to stimulate their thinking.

We asked teachers, principals, and university scholars why so much time and attention is given to oral reading. The most common answer was, in the words of Mr. Tanaka, a first grade teacher, that "the route to understanding is through the ear;" they have to "hear themselves say the words to get the meaning." He added, "First graders can't read silently, anyway." Other answers were that some beginning readers will not actually read when asked to read silently, that oral reading gives the teacher information about how well a child is doing, and that "beautiful and expressive" oral reading is a goal in its own right.

The American visitors were surprised by the belief that oral reading is the steppingstone to comprehension. The majority of American educators believe that silent reading provides a better route. (See Allington, 1983, for the majority position, & Hoffman, 1981, for a dissenting view.) Too much attention to oral reading, teachers are warned, will lead children away from meaning.

At the end of World War II, we were told that American occupation forces influenced Japanese teachers to emphasize silent reading. Since then, especially during the last decade, there has been renewed appreciation for what is seen as the value of oral reading. Part of the supporting philosophy is that oral reading helps to make a bridge between the spoken vernacular and the somewhat stilted, condensed, and formal language of books. The teachers we saw tried to make the connection between spoken and written language as apparent as possible to the children. One technique that we have already mentioned was to have children act out and elaborate a scene only sketched in the book. For another example, a first grade teacher asked students to read between the lines and express in their own words what the characters in a story might be saying to each other.

Japanese educators with whom we talked argued that repeated oral reading, with good phrasing and expression, is especially valuable for the children whose reading ability is least advanced. This squares with evidence from the United States and elsewhere in the English speaking world (Samuels, 1985; Herman, 1985). Repeated reading is a feature of the Reading Recovery Program used throughout New Zealand and in parts of the United States, a program that has proved successful with children who are making very poor progress in reading (Clay, 1979; Pinnell, in press). To the best of our knowledge,
no research has investigated repeated reading with high-ability students, probably because educators in the English speaking world generally do not suppose that repeated reading would have any special value for this group.

Japanese educators believe that even advanced students can benefit from reading a passage aloud several times. One reason is a difference in discourse structure. In an English paragraph, the topic sentence is most important, and usually much of the information is condensed there. However, in Japanese, typically the last sentence is most important. So Japanese readers must hold earlier information in memory until the last sentence, then interpret all of the information (Uchida, 1983; Ueno & Nagano, 1978).

Goals For Reading Instruction: Meaning Versus Surface Form

If national philosophies about teaching reading can be characterized in a single phrase, the Japanese philosophy ought to be called "literature oriented." Japanese educators believe this emphasis is as appropriate for slow students as it is for those who are more advanced.

When asked to talk about the goals for reading instruction, Japanese teachers brought out the concept of deep reading: becoming sensitive to the nuances in slightly different forms of expression, understanding the feelings of characters at a subtle level, appreciating the social or historical context in which stories are placed, learning to read between the lines, capturing the writer's motif, having personal reactions to stories, and connecting stories to one's inner, subjective world.

One of the teachers we observed, Mr. Sasaki, told us the following anecdote: At the beginning of the term, a first grader came up to him with the reading textbook and said proudly, "Teacher, I've read all of this book." He answered, "Oh, that's great, but proper reading is not fast reading; reading is not just reading letters. It is appreciation that is the most important."

Instructing children in deep reading takes time. This is a reason, perhaps the major reason, that Japanese lessons move slowly by American standards. Texts are painstakingly analyzed paragraph by paragraph, sentence by sentence, and word by word.

The Japanese lessons we saw were generally consistent with the philosophy of deep reading. There was, to be sure, stress on correct formation of characters, correct pronunciation, and clear diction. At the same time, we always observed attention to aspects of meaning. For instance, the story employed in a second grade lesson described a monkey who was convinced that a candle was a sky rocket for use in a fire works display. The teacher asked why the author had used convinced. The discussion brought out that the word indicated that the monkey was very confident of his belief, and that in this context the word had the connotation that the belief was mistaken. In this case, and in others we observed, the instruction seemed to inculcate the general principle that readers and writers ought to be sensitive to fine nuances in word meaning.

Teachers asked some questions that could be answered directly from information given in the story. But they also asked questions that required going beyond the given. Especially frequent, it seemed to us, were questions that asked children to infer characters' feelings. Perhaps this explains the rapid development over the early school years in Japanese children's ability to reason about the plot of stories in terms of the motives and mental states of characters (Akita & Omura, 1987).

As it happens, we did not observe a class during the lesson that culminated a story. Thus, we were not in a position to see questions, discussion, or explanations from teachers intended to bring out the moral or deeper significance of a story. We were assured, though, that this would be typical.

Similarly, we did not observe a class during a lesson that featured extended writing. However, we saw examples of freely composed student writing posted on the board at the back of a second grade
classroom. The children had written their personal reactions to a true story about the fate of the animals at the Ueno Zoo during World War II. A first grade teacher told us that he frequently asks children to write their own thoughts in response to a question he poses and that he underscores that they should concentrate on expressing their ideas and not worry overly much about penmanship or neatness. In fact, we did see a brief writing assignment in his class that fit this description.

A most interesting question is this: What portion of time and attention during Japanese lessons is given to correct form, and what portion is given to meaning? It is easier to raise this question than to answer it. Reasonable answers depend on agreements about definitions of terms, and on this matter dispute seems more common than agreement (Hodges, 1980). Dependable answers depend upon having large, representative samples of classrooms, whereas our sample is small and possibly unrepresentative. Despite these difficulties, we will not shrink from offering our impressions: We judge that the lessons we saw had an appropriate balance between instruction on correct form and instruction to develop facility in comprehension. However, despite the apparent commitment of Japanese educators to the concept of deep reading, there are powerful forces operating in Japanese classrooms to tip the scales toward correct form.

The first is the tradition of repeated oral reading. Oral reading may be a good route to meaning, but it should be apparent to any observer that the first effect of asking children to read aloud is to increase their concern for appearances. The teacher and the other children are always vigilant for any mispronunciation or stumbling. And, classmates are not always kind. We saw several children embarrassed when other children ridiculed them for a poor performance, including a girl the teacher had to comfort when she burst into tears.

A second powerful force stems from the fact that Japanese children must learn to recognize and write about 1,000 kanji by the end of the sixth grade and about 2,000 by the end of high school. Many characters are complex; writing these requires a number of strokes of a pen; indeed, a few characters require as many as 30 separate strokes. Fine discriminations in form are required to avoid confusions among characters.

Inevitably, therefore, learning to read and write Japanese means learning the correct form of what must seem to children an endless stream of kanji. The official Course of Study for Elementary Schools in Japan, issued by the Ministry of Education (1983), lists the kanji that are to be taught in each grade. Also prescribed at each grade is instruction on correct form. For instance, second grade teachers are admonished to teach children "to write a character correctly, paying attention to the border, intersection, and direction of strokes (p. 7)." Inevitably, too, mastering kanji entails a large amount of drill and practice. Japanese teachers told us that they are always looking for ways to relieve the tedium.

To summarize, every lesson we saw gave considerable attention to word meaning, story meaning, and the habits of thought required to fully comprehend stories or expositions. However, a specialist in Japanese language instruction warned us that during the typical lesson it is likely that much more attention is given to accurate, fluent oral reading and correct formation of characters. Assuming this is true, in our opinion, then, the practice of repeated oral reading and, particularly, the necessity for mastering a couple of hundred kanji every year may be leading the average Japanese teacher to place more weight on correct form than on text comprehension.

How do American goals for reading instruction compare with Japanese goals? There are many American reading teachers whose philosophy could be described as literature oriented and, certainly, every American teacher gives some attention to deeper meanings. Still, it is fair to say that the predominant American philosophy today is skills oriented. This philosophy is realized in an hour a day of drill, using workbooks and exercise sheets, on the myriad small skills and concepts that are supposed to comprise the basic elements of reading, and on frequent tests assessing mastery of these elements.
The basic skills philosophy notwithstanding, we venture the opinion that American children making average and beyond-average progress in reading may actually receive more opportunities to advance their abilities at deep reading than comparable Japanese children. In support of this opinion are the facts that American children of middle or high ability read far more material under the guidance of a teacher and, because of ability grouping, engage in discussions of this material that are likely to be relatively fast-paced and intellectually stimulating (Anderson, Hiebert, Scott, & Wilkinson, 1985). If we are correct, this may be an additional reason why by the fifth grade American children average higher than Japanese children on tests of reading comprehension, and also why at this age the spread of reading achievement is much greater in the United States than in Japan.

Summary and Implications

The typical course of development in learning to read in a country depends upon a number of factors, including national and individual priorities, the nature of the language that must be deciphered, and the beliefs, accumulated know-how, and practices of the nation's educators. It is about this last set of factors that we would like to draw implications. But implications must be advanced tentatively because all of the factors interact. What is effective, or even possible, in the classroom may depend upon the demands imposed by the language or the amount of home support for literacy. With this forewarning, we will suggest three lessons from Japan for American educators.

The first possible lesson from Japan is for Americans who worry about literacy development in kindergarten and before. In most Japanese kindergartens, the teacher plans activities that deliberately include many opportunities for reading and writing in hiragana. She usually does not provide direct instruction in letters and their sounds, however. In fact, direct instruction is proscribed by the Ministry of Education. The activities we saw in Japanese kindergartens for informally promoting literacy seemed tasteful and effective. It can be argued that the informal approach must be working; otherwise, Japanese children's reading would not be so advanced when they enter the first grade. Maybe the lesson is that Americans should be working to bolster informal means for promoting early literacy instead of joining the trend toward more and more direct instruction of letter and word identification in the kindergarten. The caveats in this case are that English is harder than hiragana and that home support for literacy may not be so uniformly high in the United States as in Japan.

A second lesson from Japan may be to use more whole-class instruction in reading. Allow us to emphasize again that we saw only a few primary school lessons and that these may not have been representative of Japanese language instruction. Still, we were impressed with the attentiveness and intellectual involvement of Japanese first and second graders during whole-class lessons. It seemed to us that better use was made of time than in the typical American arrangement. Dividing children into three small reading groups everyday, as is done throughout the United States, is often likened to a "three ring circus." This ascription seems even more apt to us after our visits to Japanese classrooms. Here we encounter the chicken and egg problem once again: Does the narrow range of reading ability in Japan enable the use of whole-class instruction, or does the use of whole-class instruction restrict the range of ability?

A third Japanese practice worth emulating is instruction in deep reading. Promoting comprehension has always been a goal of American reading lessons, and over the past decade American reading educators have placed increasing emphasis on comprehension. Still, with the possible exception of the Experience-Text-Relationship method used in the Kamehameha Early Education Program (Au, 1979), we have never seen lessons for first and second graders in American classrooms that as painstakingly develop meaning as the lessons we saw in Japan.

Finally, Japanese educators may wish to consider the justification for the relatively small amount of material that children read under teacher supervision. The pace is slow because of whole-class instruction and the emphasis on deep reading, two practices that we have found praiseworthy. Nevertheless, it could well be that children with above average ability would profit from a faster pace.
References


Mason, Anderson, Omura, Uchida, & Imai


Simmons, J. (1987). 'A long-distance ticket to life': They get by with a lot of help from their kyoiku mamas. *Smithsonian*, 17, 12, 44-55.


Author Notes

Appreciation is extended to Hisashi Baba and other graduate students at Tokyo University for their help in collecting classroom observations. The research was funded by the Japan Society for Promotion of Science and was conducted while the first and second authors were on sabbatical leave from the University of Illinois.
Table 1


<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Kindergartens (N = 653)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. almost all of children</td>
</tr>
<tr>
<td>Has interest in print</td>
<td>2. half of children</td>
</tr>
<tr>
<td>81.8%</td>
<td>3. very few</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Can read own name in hiragana</td>
<td>1. almost all of children</td>
</tr>
<tr>
<td></td>
<td>2. half of children</td>
</tr>
<tr>
<td></td>
<td>3. very few</td>
</tr>
<tr>
<td></td>
<td>639</td>
</tr>
<tr>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>97.9</td>
</tr>
<tr>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Can write own name in hiragana</td>
<td>1. almost all of children</td>
</tr>
<tr>
<td></td>
<td>2. half of children</td>
</tr>
<tr>
<td></td>
<td>3. very few</td>
</tr>
<tr>
<td></td>
<td>596</td>
</tr>
<tr>
<td></td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>91.3</td>
</tr>
<tr>
<td></td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>0.6</td>
</tr>
<tr>
<td>Can read picture story books by oneself</td>
<td>1. almost all of children</td>
</tr>
<tr>
<td></td>
<td>2. half of children</td>
</tr>
<tr>
<td></td>
<td>3. very few</td>
</tr>
<tr>
<td></td>
<td>596</td>
</tr>
<tr>
<td></td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>91.3</td>
</tr>
<tr>
<td></td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>0.6</td>
</tr>
<tr>
<td>Can write easy words</td>
<td>1. almost all of children</td>
</tr>
<tr>
<td></td>
<td>2. half of children</td>
</tr>
<tr>
<td></td>
<td>3. very few</td>
</tr>
<tr>
<td></td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>382</td>
</tr>
<tr>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>33.2</td>
</tr>
<tr>
<td></td>
<td>58.5</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
</tr>
</tbody>
</table>