



Summary

Research on Home Education

from Early Childhood to
First Grade of Elementary School
(Longitudinal Survey)



**Envisioning
the “Prospect of Learning in Children”
at home during early childhood**

based on a longitudinal survey of children from K1 through first grade

Benesse Educational Research and Development Institute

<http://berd.benesse.jp/jisedai/>

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Survey background

Global Trend in Early Childhood Education

Our social environment is rapidly changing internationally at an accelerating pace through globalization in economy and informatization using IT. No longer sufficient to simply master conventional knowledge, it is also considered necessary for us to acquire attitudes and capabilities to flexibly adapt to our environments, continue to learn, and solve problems. Attention is also turning toward the importance of acquiring such attitudes and capabilities in early childhood for future individual development.

Transition from Early Childhood to Elementary School in Japan

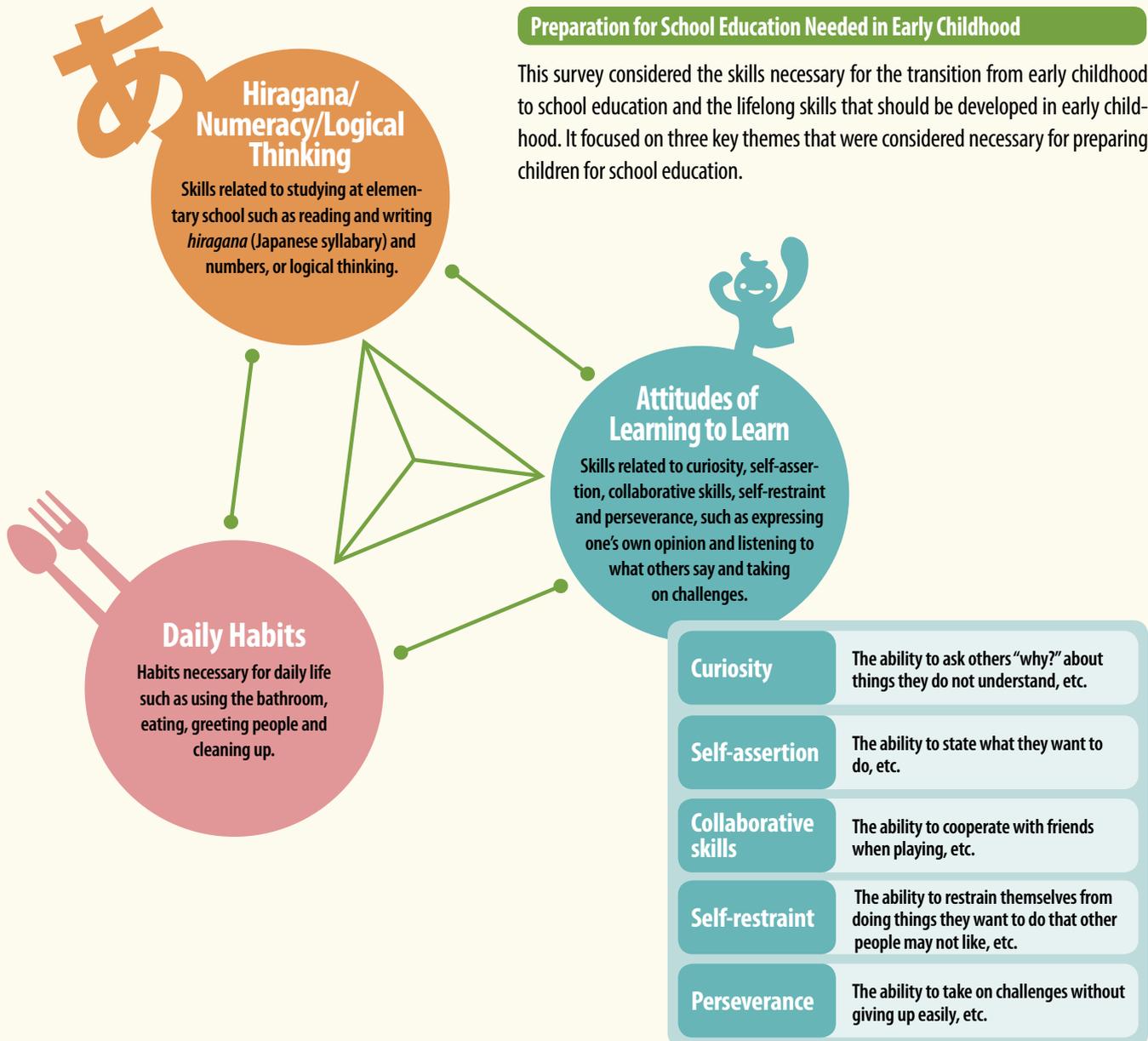
Children cultivate the basics of learning during the period from early childhood to elementary school. To ensure that preschool education and care and elementary education provide a smooth transition in line with children's development, kindergartens, day-care centers, Early Childhood Education and Care centers (ECEC centers: *nintei kodomo en*), etc., and elementary schools have begun implementing transitional curricula.

A Demand for Evidence Based on Data

Much research is conducted on activities and involvement with day-care centers/kindergartens and the home in Japan with regard to learning processes in early childhood and environments that encourage learning. Moreover, nowadays it is required to build up evidence based on data collection and analysis.

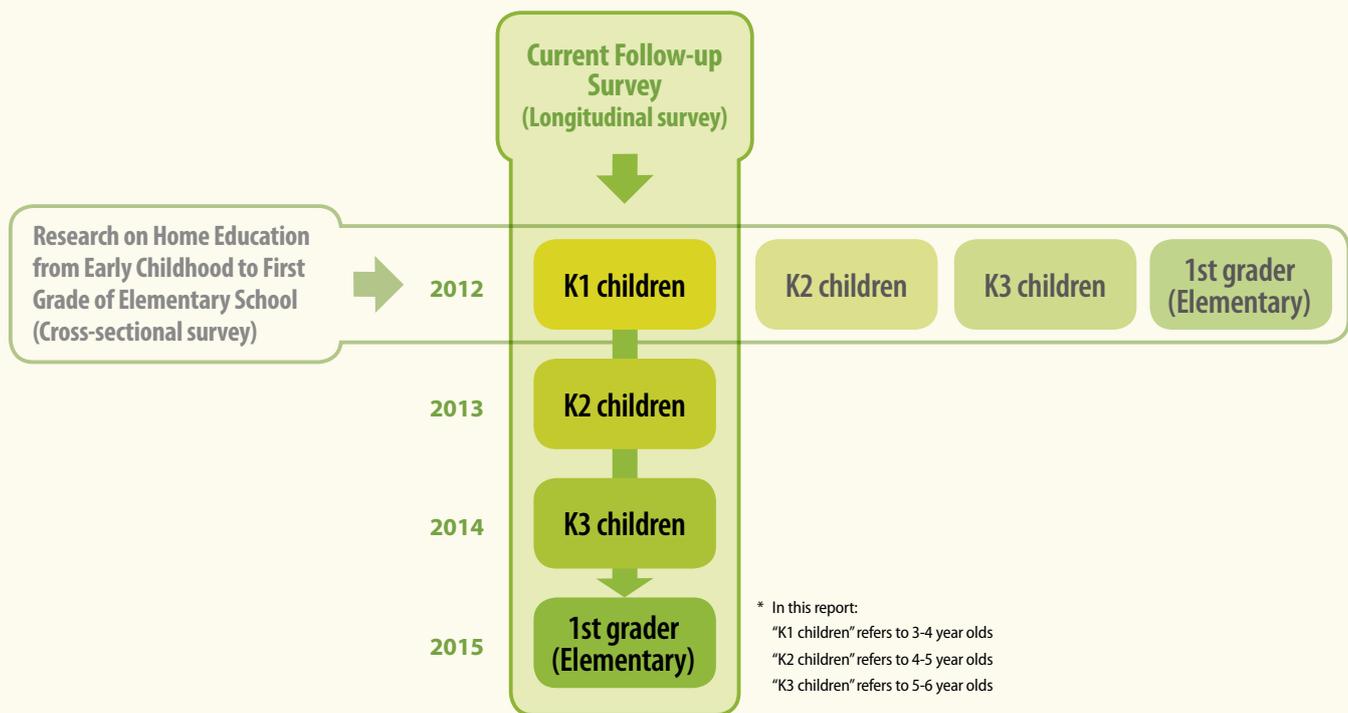
Preparation for School Education Needed in Early Childhood

This survey considered the skills necessary for the transition from early childhood to school education and the lifelong skills that should be developed in early childhood. It focused on three key themes that were considered necessary for preparing children for school education.



About the survey

In this survey, the 2012 cross-sectional survey revealed the actual conditions of life at home of children aged three to six (first-year kindergarteners or K1 to first graders in elementary school), how they were raised and interacted with their parents at home. From then on, we have carried out a survey targeting the mothers of K1 children since 2012, and longitudinal surveys have been carried out every year since 2013 to study the learning processes of children as well as real learning situations at home. This summary analyzes questionnaires responses from 544 mothers on their children (from when they were K1 to first graders in elementary school) based on data collected from the longitudinal survey.



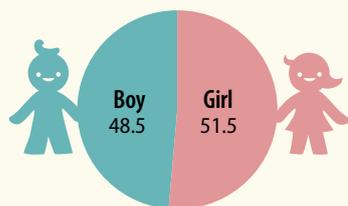
Survey overview

- Theme:** Aspects of children's learning from early childhood to first grade and parental involvement and awareness
- Method:** Mail (Self-administered questionnaires were distributed and collected by mail)
- Subjects:** Mothers of K1 children who agreed to take part in the longitudinal survey until their children became first graders, and who had completed the survey.
- Number of samples:** 544
- Survey area:** All areas of Japan
- Survey items:** Daily schedule of children; aspects of children's learning; maternal involvement; roles of the father and the mother; degree of satisfaction with childcare facility or elementary school; mothers' social involvement; after-school activities; shared reading, etc.

Period:	Period of K1	January to February 2012
	Period of K2	January to February 2013
	Period of K3	January to February 2014
	Period of 1st Grade (Elementary school)	March 2015

Basic attributes of samples

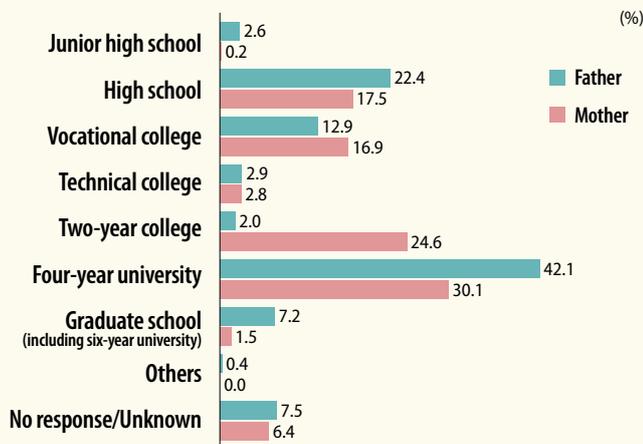
Child Gender



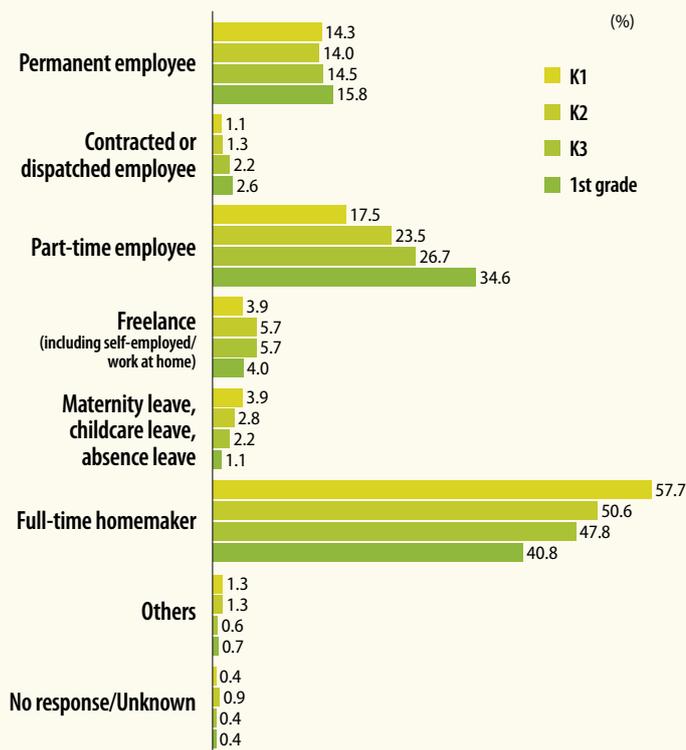
Birth Order (Relative to Siblings)



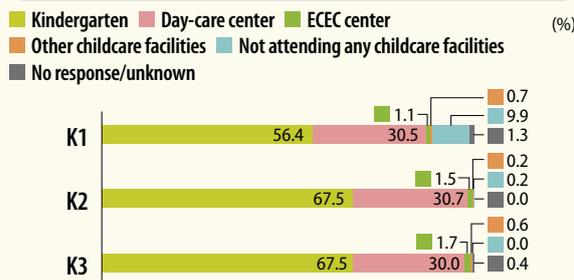
Education of Parents (Period of First-grade)



Employment of Mother



Attending Facilities



After-School Care Attendance



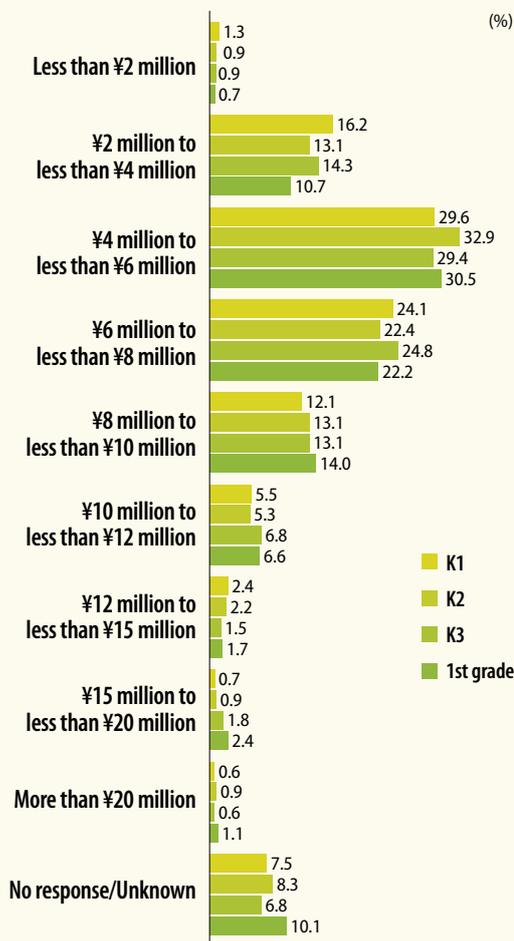
Average Age of Parents

(Age)

	K1	K2	K3	1st grade
Father	38.4	39.5	40.4	41.5
Mother	36.6	37.6	38.5	39.7

* When calculating the average age, "No response/Unknown" was excluded.

Household Income



Features of this Report

During the early stage of learning from preschool to the first year of elementary school, what should be done at home to support the child's growth and to ensure that children continue to learn, adapt to their environments flexibly and solve problems?

In order to give an idea of how to support children through this stage, BERD has carried out one of Japan's few longitudinal surveys on this question and analyzed the development of learning in children from early childhood to first grade. This report aims to help create better environments for children and their families from the viewpoint of the childrearing generation and to assist those who are involved in supporting them.

How will children learn to think for themselves and come up with solutions during the transitional period between early childhood and elementary school?

What kinds of attitudes are essential for children during early childhood?
How should parents support children at home?



 Let's look at the longitudinal data from four key points. 

POINT

1

Development of Learning from Early Childhood to the First Grade of Elementary School



POINT

2

The Process of Learning



POINT

3

Changes in Parental Involvement



POINT

4

Learning Attitude during the First Grade of Elementary School, and Parental Involvement during K3 Period



To Families

This survey was carried out to indicate how to contribute to the better growth of children and better ways for parents to interact with them at home. It aims to provide a view of their growth from pre-school to entering elementary school and identify essential key points so that parents can discover tips in childrearing. It is our humble hope that this report will be helpful in supporting your children.

To Those Involved in Childcare Facilities and Elementary Schools

Having conducted annual surveys of the same children over the course of four years from a class for 3-4 year-olds through to the first year of elementary school, we have studied the way in which children are raised at home during the transitional period from preschool to elementary school. We hope that you will find this information useful in providing support for children's growth in early childhood education and elementary school education, establishing relationships with parents and guardians, and considering the cooperation between childcare facilities and elementary schools.

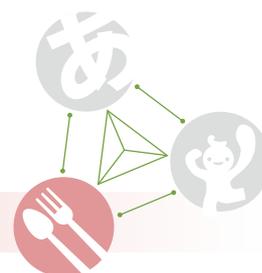
Development of Learning from Early Childhood to the First Grade of Elementary School

How do the children develop during the four years from early childhood to the first year of elementary school? Here we examined the three stem areas of the development process which represent the preparation for school education required in early childhood: daily habits, hiragana/numeracy/logical thinking and attitudes of learning to learn.

* Areas of preparation for school education required during early childhood: Areas that constitute an important foundation for learning from elementary school onwards are self-independent daily habits, the ability to concentrate, and the ability to cooperate with others. For the purpose of this survey, we have established three key areas or attitudes which are considered necessary to adapt to the learning environment from elementary school onwards, and which should be acquired during early childhood.

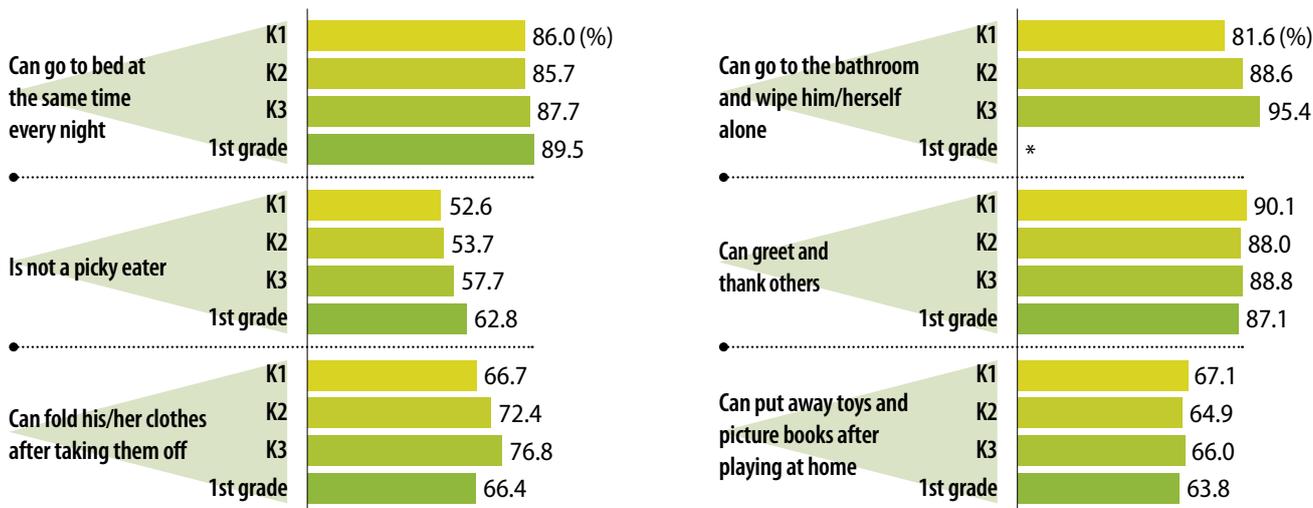
Q Are the following statements true for your child?

Daily Habits



Daily Habits

Fig. 1-1 Very true + Somewhat true



* Items for K1 through to K3.



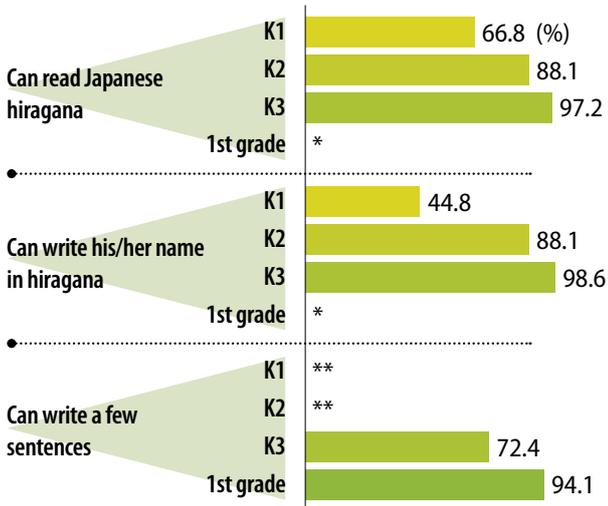
As for their “daily habits,” more than 80% of children were able to go to bed at the same time every night. Between 50-60% of children are not picky eaters, and can put away toys and picture books.

Fig. 1-1 indicates that 86.0% of respondents answered “very true” or “somewhat true” to the item “can go to bed at the same time every night” by the period of K1. On the other hand, only 62.8% were not picky eaters at the stage of first grade in elementary school. Once children enter elementary school, they have to commute to school at a fixed hour and get dressed according to their class schedule on a daily basis. The results indicate that there are a certain number of children who are picky eaters or, considerably unorganized and fail to meet required levels of expectation.

Hiragana/Numeracy/Logical Thinking

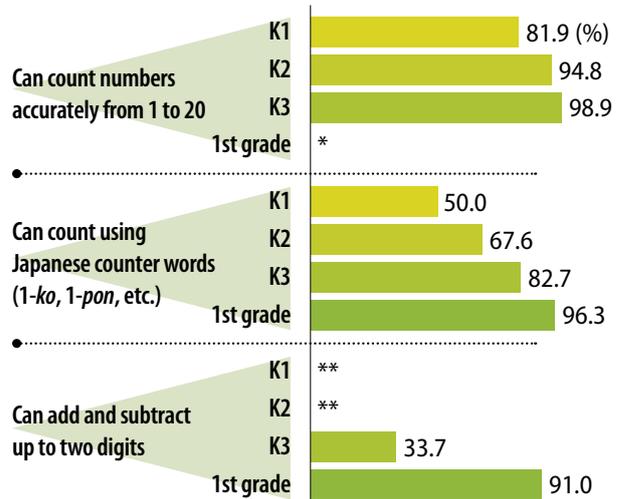
Hiragana

Fig. 1-2 Very true + Somewhat true



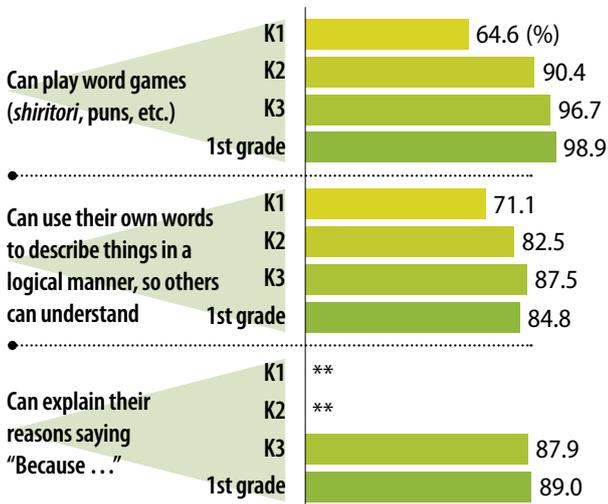
Numeracy

Fig. 1-3 Very true + Somewhat true



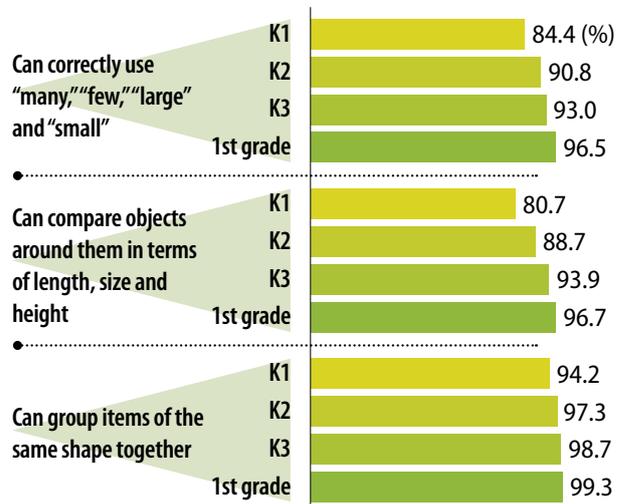
Language

Fig. 1-4 Very true + Somewhat true



Classification Skills

Fig. 1-5 Very true + Somewhat true



* Items for K1 through to K3.
** Items for K3 and 1st grade.



"Hiragana/numeracy/logical thinking" are important for developing literacy (hiragana) and arithmetic skills.

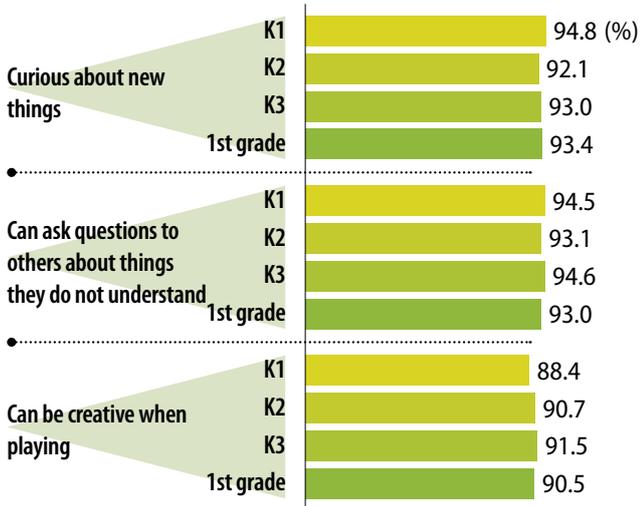
Fig. 1-3 shows a 57.3 percentage points increase between K3 children (33.7%) and first grade children (91.0%) who "can add and subtract up to two digits," a huge development in "hiragana" and "numeracy" skills. The data also indicates that in "language" and "classification skills," 80-90% of the respondents were able to formulate sentences and make themselves understood and to classify items of the same shape together, etc. during the period of K2 to first grade.



Attitudes of Learning to Learn

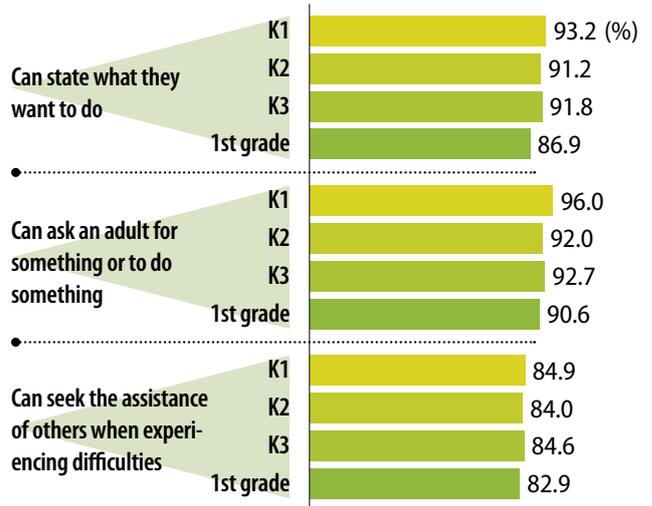
Curiosity

Fig. 1-6 Very true + Somewhat true



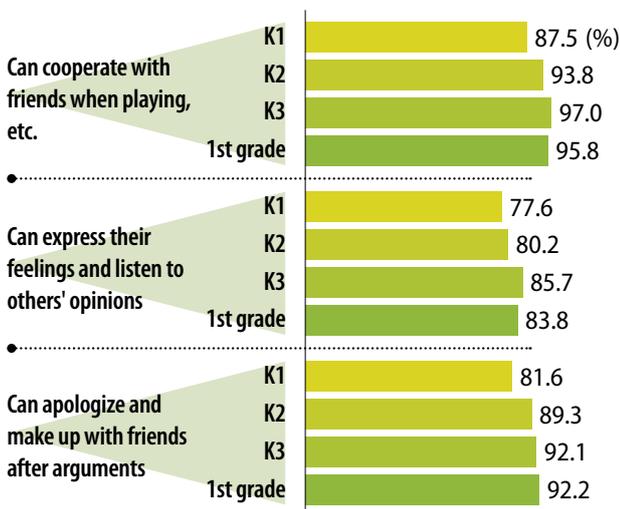
Self-assertion

Fig. 1-7 Very true + Somewhat true



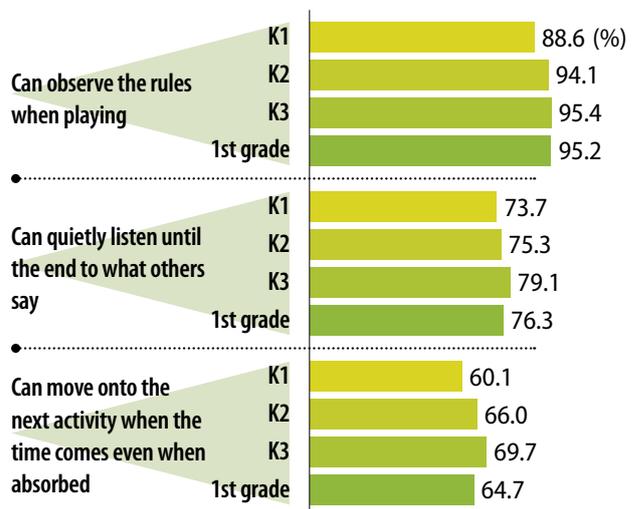
Collaborative Skills

Fig. 1-8 Very true + Somewhat true



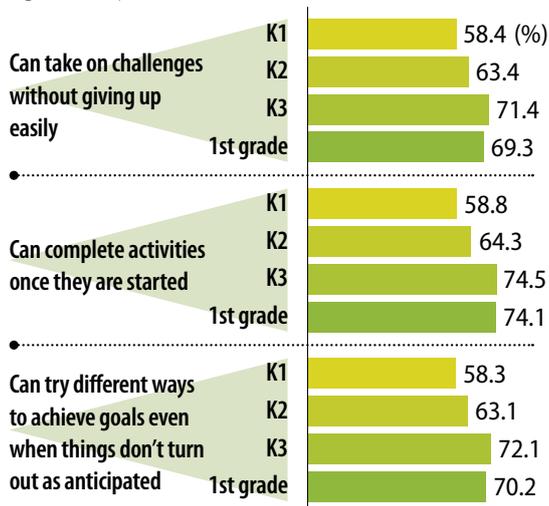
Self-restraint

Fig. 1-9 Very true + Somewhat true



Perseverance

Fig. 1-10 Very true + Somewhat true



Description



“Attitudes of learning to learn” develop steadily until children are in K3, while some attitudes slightly decrease by the time they reach the first grade of elementary school.

A look at the transitions involved over the course of four years indicates that “curiosity” is enhanced, as is shown in Fig. 1-6. Despite the fact that “self-assertion” decreases slightly in Fig. 1-7, “collaborative skills” in Fig. 1-8, “self-restraint” in Fig. 1-9, and “perseverance” in Fig. 1-10 show a tendency to increase up until the K3 period of preschool, and then decrease slightly in the first year of elementary school.

This seems to indicate that children in early childhood are able to restrain self-assertion as they grow older, and interacting with others enhances their collaborative skills, self-restraint and perseverance. The slight decrease after children have entered elementary school may be due to the effect of changes in the lifestyle environment.

Comments from the Research Group

What relationship exists between the skills required in the 21st century and the “attitudes of learning to learn”?

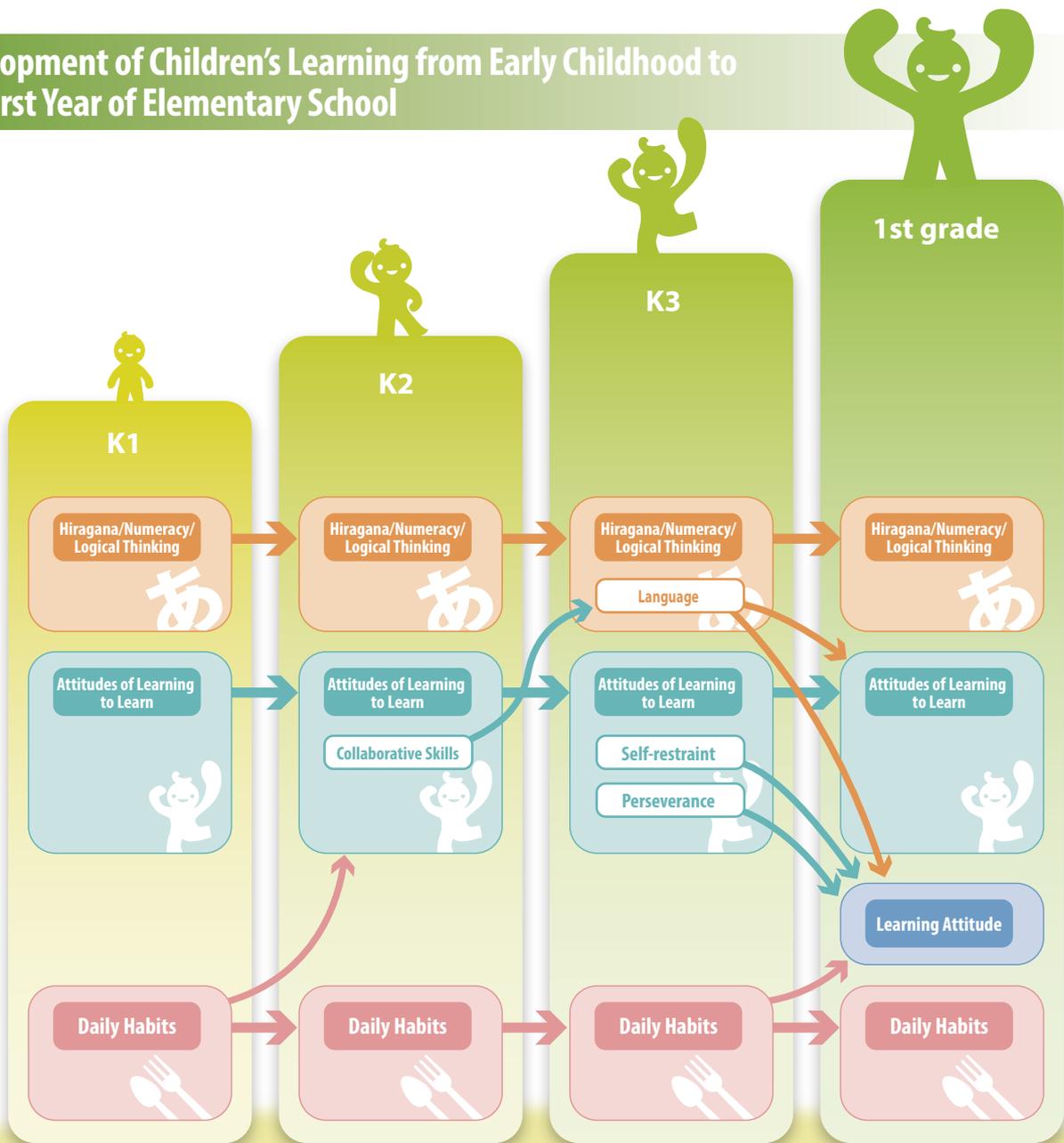
Currently, even in the education curriculum from elementary and upwards, much discussion is underway emphasizing the importance of “generic skills” in addition to “knowledge and skills,” so that children can adapt flexibly to globalization and informatization and other changes in the social environment. Generic skills encompass skills of problem-solving, critical-thinking, communication, information utilization, planning and execution and such that exceed the frameworks of conventional subjects, and are collectively called “21st century skills” or “21st century abilities.” “Attitudes of learning to learn” is considered to be the basis for these skills.

2 The Process of Learning

Do the three areas of “daily habits,” “attitudes of learning to learn,” and “hiragana/numeracy/ logical thinking” in early childhood develop independently or interdependently? Here we will introduce the process of children’s learning based on four-year longitudinal data.

Development of Children’s Learning from Early Childhood to the First Year of Elementary School

Fig. 2-1



*The bold lines indicate great influence, and the fine lines indicate slighter great influence.



“Daily habits” are the foundation of learning from early childhood through to the first grade of elementary school, and “attitudes of learning to learn” and “hiragana/numeracy/logical thinking” work together to stimulate growth.

Based on longitudinal data from K1 through to first grade, we analyzed the influence of the previous year to the subsequent year, and extracted the factors with great influence.

Fig. 2-1 shows that the three areas of “daily habits,” “attitudes of learning to learn,” and “hiragana/numeracy/logical thinking” each influenced the development of skills from one school year to the next. In particular, the skills that showed the greatest relationship between school years were as follows: “daily habits” in K1 influenced “attitudes of learning to learn” in K2, and “attitudes of learning to learn” (collaborative skills) in K2 influenced language skills in K3. Additionally, “hiragana/numeracy/logical thinking” (language) in K3 was closely related to “attitudes of learning to learn” in the first grade period.

Three Areas	Skills	Representative Examples of Items
Hiragana/Numeracy/Logical Thinking	Hiragana	Four items, including the ability to read the Japanese hiragana syllabary, etc.**
	Numeracy	Three items, including the ability to count using the Japanese style of counter words (1-ko, 1-pon, etc.), etc.**
	Language	Four items, including the ability to use their own words to describe things in a logical manner for others to understand, etc.**
	Classification Skills	Four items, including the ability to compare objects around them in terms of length, size and height, etc.**
Attitudes of Learning to Learn	Curiosity	Five items, including the ability to ask why about things they do not understand, etc.
	Self-assertion	Five items, including the ability to state what they want to do, etc.
	Collaborative Skills	Five items, including the ability to cooperate with friends when playing, etc.
	Self-restraint	Six items, including the ability to quietly listen until the end to what others say, etc.
	Perseverance	Four items, including the ability to take on challenges without giving up easily, etc.
Daily Habits	Daily Habits	Seven items, including the ability to go to bed at the same time every night *, etc.*

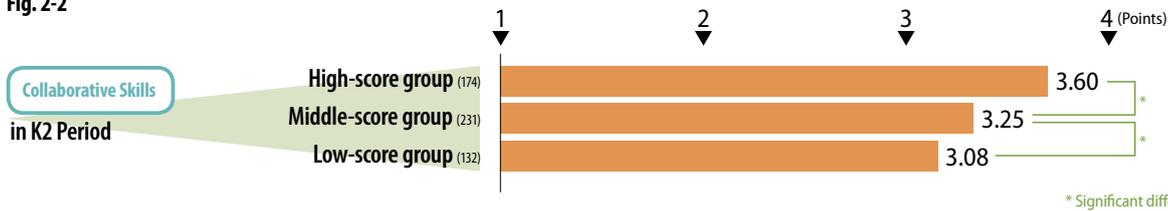
* Six items set for first grade period according to their development.

** The skills and number of items differ between K3 period and first grade period according to their development.

2 The Process of Learning

Language Scores in K3 Period

Fig. 2-2



* Significant differences were found.

* **Scoring method:** Points were calculated by giving 4 points to all “very true” responses, 3 points to all “somewhat true” responses, 2 points to all “not very true” responses and 1 point to all “not applicable” in each item. Only the respondents who answered completely were included in the analysis.

* **Three groups in Collaborative skills:** Scores were calculated in the above method for the items below, then classified into three groups according to their average scores.

- Can cooperate with friends when playing, etc.
- Can express their feelings and listen to others' opinions
- Can apologize and make up with friends after arguments
- Can ask people to let them join in, to play and to lend toys when playing

* **Language scores in K3 period:** Scores were calculated in the following six items and the averages obtained.

- Can play word games
- Can use their own words to describe things in a logical manner, so others can understand
- Can explain their reasons saying “Because...”
- Can explain things they have seen or heard to others
- Can read picture books or visual dictionaries unaided
- Can make up stories when assigned a topic

* Sample size indicated in brackets.

Description



“Collaborative skills” in K2 period leads to “language” skills in K3 period.

After dividing the 544 respondents into three groups (high, middle, and low-score groups) according to their scores on “collaborative skills” in the K2 period, we compared the “language” scores of the three groups in the K3 period. As indicated in Fig. 2-2, the “language” scores marked 3.60 for the high-score group, 3.25 for the middle-score group, and 3.08 for the low-score group. The results of this analysis indicate significant differences between the three groups. There was a tendency that the higher the levels of “collaborative skills” in K2 period, the higher the “language” scores were in K3 period. Collaborative skills involve demonstrating one’s attitude through adjusting one’s feelings and thoughts with others, and are developed through interaction with others. The survey results indicate that fostering collaborative skills in children leads to “language” skills in such areas as “can use their own words to describe things in a logical manner, so others can understand” and “can read picture books or visual dictionaries unaided.”

Attitudes of Learning to Learn Scores in First Grade Period

Fig. 2-3



Hiragana/Numeracy/Logical Thinking Scores in First Grade Period

Fig. 2-4



* Significant differences were found

* **Three groups in Language in K3 period:** Scores were calculated in six items and the averages categorized into three groups.

- Can play word games
- Can use their own words to describe things in a logical manner, so others can understand
- Can explain their reasons saying "Because..."
- Can explain things they have seen or heard to others
- Can read picture books or visual dictionaries unaided
- Can make up stories when assigned a topic

* **"Attitudes of learning to learn" scores in first grade:** 24 categories pertaining to curiosity, self-assertion, collaborative skills, self-restraint and perseverance for first graders (elementary) were calculated and the mean values obtained.

* **"Hiragana/numeracy/logical thinking" scores in first grade:** 16 categories pertaining to hiragana, numeracy, language and classification skills were calculated and the mean values obtained.

* Sample size indicated in brackets.



The "language" skills in the K3 period are closely related to the "attitudes of learning to learn" and "hiragana/numeracy/logical thinking" abilities in the first grade period.

As in Fig. 2-2, the respondents were divided to three groups according to their "language" scores in K3 period, and the scores of the three groups were compared in the scores of "attitudes of learning to learn" and "hiragana/numeracy/logical thinking" in the first grade period. In Fig. 2-3, the high group scored 3.35 for "attitudes of learning to learn" in language, 3.13 for the middle group, and 2.89 for the low group. As for the scores in "hiragana/numeracy/logical thinking," they were 3.80 for high language score group, 3.57 for middle language score group, and 3.18 for low score language group. The results of the analysis revealed significant differences between each group. It was found that "language" skills are related to "attitudes of learning to learn" and "hiragana/numeracy/logical thinking" skills.



Comments from the Research Group

Nurturing "attitudes of learning to learn" and "hiragana/numeracy/logical thinking" skills during daily life and play

How are "attitudes of learning to learn" and "hiragana/numeracy/logical thinking" skills nurtured in daily life and play? For example, when children build structures with wooden blocks, they have to consider the balance between the shapes and sizes of the blocks, express in words the image they have of the structure they wish to build, and consider various ways to realize this image. This provides the skills they need for "hiragana/numeracy/logical thinking." In addition, the desire to build the structure and work to complete it can also be said to represent an "attitude of learning to learn." Completing it provides them with a sense of satisfaction and confidence, which helps develop their "attitude of learning to learn" even further. It also enhances their knowledge and ability to think about the shapes and sizes of the blocks.

Therefore, such daily activities are consequently very significant for children, and the freedom to explore enhances "attitudes of learning to learn" closely related to the development of "hiragana/numeracy/logical thinking" skills. Children also receive a broader level of learning through interacting with a wide range of people, and it is thought that this is linked to the skills they need to cope with situations in a flexible manner.

3 Changes in Parental Involvement

How do parents interact with their children at home during the period of development between K1 and the first grade of elementary school?

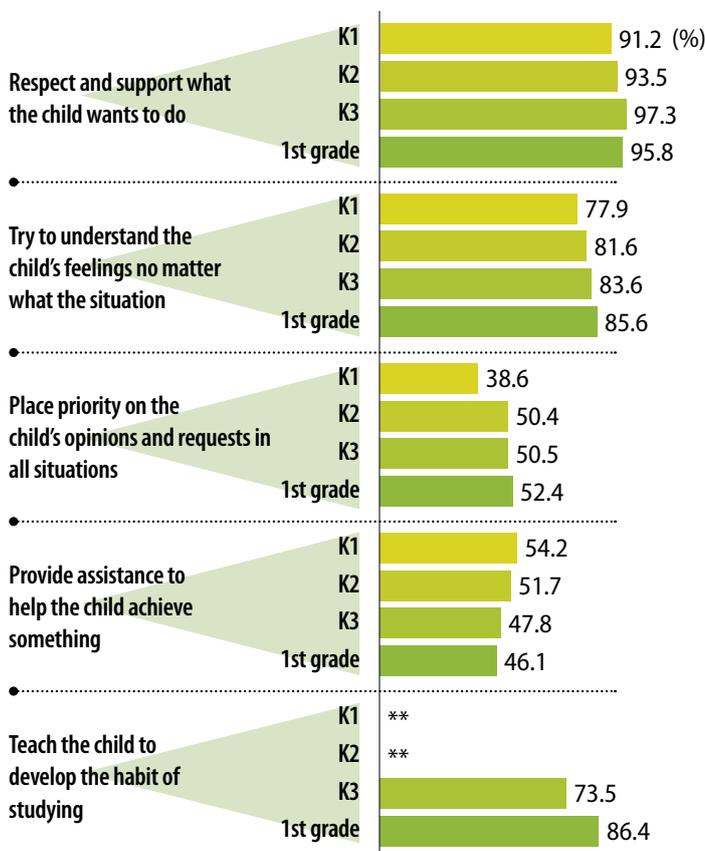
Here we examine the shifts over the course of four years and the relation between the degree of parental involvement and learning after children enter elementary school.

Parental Involvement

Q Are the following statements true for you?

Attitudes toward Childrearing

Fig. 3-1 Very true + Somewhat true



** Items for K3 period and upwards.



Parents shift from assisting their child to perform a task to respecting the child's wishes

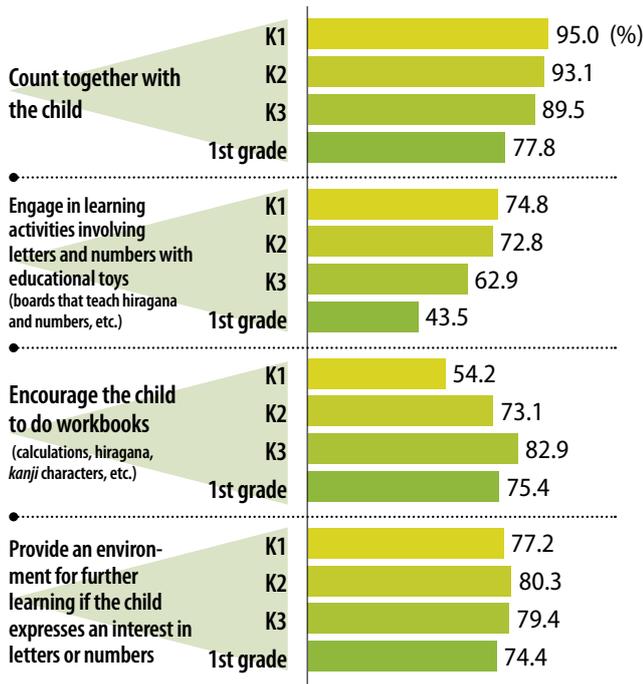
A look at the transitions in parental attitudes toward childrearing over the course of four years in Fig. 3-1 indicates an increase in "respect and support what the child wants to do" and "try to understand the child's feelings no matter what the situation." Conversely, "provide assistance to help the child achieve something" showed a decrease. This appears to indicate a shift from parents directly helping their child when he/she is doing something to supporting them through respecting what the child wants.



Q How often do you do the following with your child?

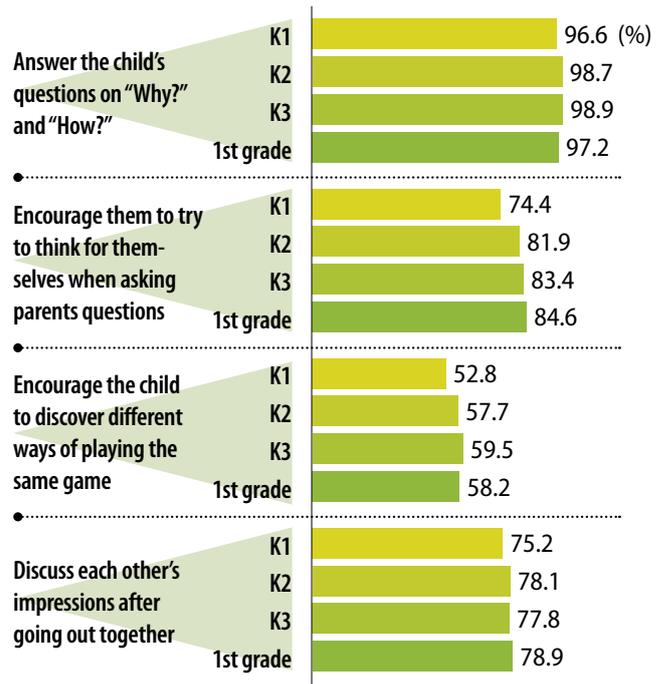
Involvement Related to Creating an Environment for Learning

Fig. 3-2 Quite often + Once in a while



Involvement Related to Encouraging Thinking

Fig. 3-3 Quite often + Once in a while



Description

Change in parental involvement related to creating a learning environment seen according to the child's age.

No changes in involvement related to encouraging thinking.

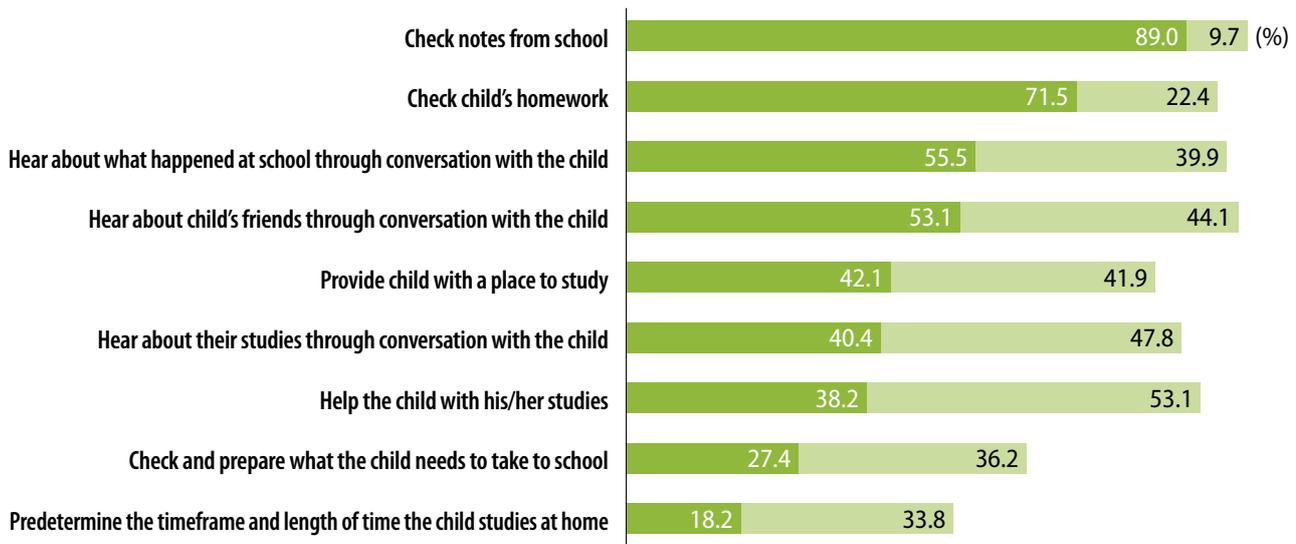
When "parental involvement related to creating a learning environment" is compared in different periods, Fig. 3-2 shows that the highest percentage for "engage in learning activities involving letters and numbers with educational toys" was in the K1 period, scoring 74.8%, and the highest percentage for "encourage the child to do workbooks" was in the K3 period with 82.9%. Fig. 3-3 indicates that there was little change in the involvement to encourage thinking, with parents responding favorably to "encourage the child to try to think for themselves when asking parents questions" remaining around 80% from the K2 period through to the first grade.

3 Changes in Parental Involvement

Parental Encouragement in School Life and Home Learning (first grade)

Q How often do you do the following for your child?

Fig. 3-4 ■ Frequently ■ Sometimes



Description



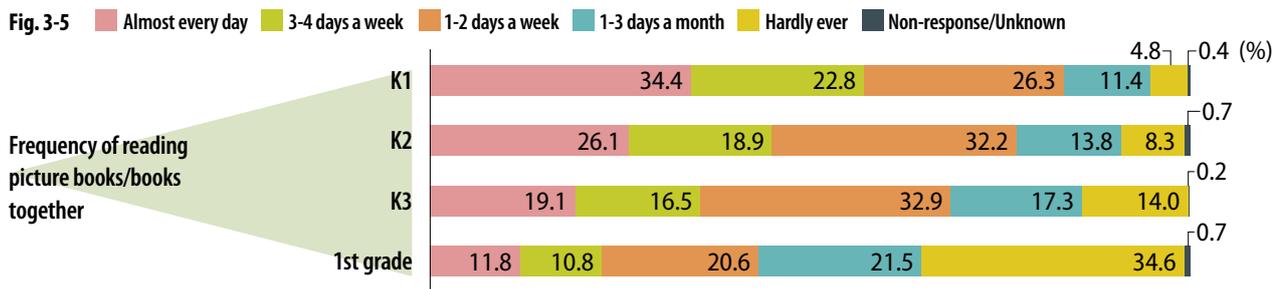
Parents who reported checking homework “frequently” after the child has entered elementary school stood at 71.5%.

Fig. 3-4 indicates that 89.0% of parents “frequently” “check notes from school” and 71.5% “check the child’s homework,” showing a high percentage of parents who confirm information from the school. Following this, between 40% and 50% of parents said that they “frequently” converse with their children in order to hear about incidents at school, friends and studies. The results also indicated that 38.2% of parents “help the child with his/her studies” “frequently,” and 53.1% do so “sometimes” in accordance with necessity.

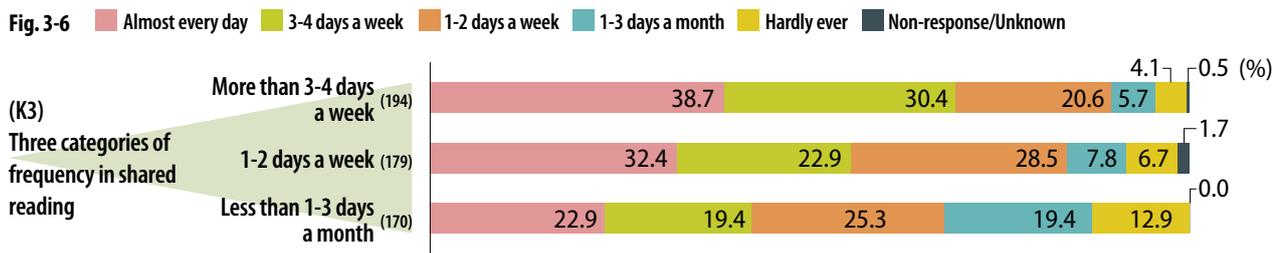
Children Reading Picture Books or Books and Parents Reading to Children

Q How often does your child read (or look at) picture books or books on his/her own?

Frequency of Reading Picture Books/Books Together



Frequency of Children Reading Books/Picture Books on Their Own (first grade)



* Sample size indicated in brackets.



The more frequently parents read to children in K3, the more frequently children read books on their own in first grade.

Fig. 3-5 shows that the frequency of parents reading to children decreases as the children become older. As shown in Fig. 3-6, out of the children whose parents read to them "more than 3-4 days a week" in K3, 38.7% read (or looked at) picture books or books on their own "almost every day," which is higher than those who were read books "less than 1 to 3 days a month." The more frequently parents read to children in K3, the more frequently children read (or looked at) picture books or books on their own in first grade. It is thought that parents reading books to their children stimulates an interest in the child to read picture books and other books.

4 Learning Attitude during the First Grade of Elementary School, and Parental Involvement during K3 Period

Here the focus was from K3 to the first grade of elementary school. We examined how the children adapted to elementary school and analyzed how parents should be involved with their children during the transition process from K3 to the first grade of elementary school.

Elementary School Life and Home Study at First Grade in Elementary School

Q *Are the following statements true for your child?*

Relationship with School (first grade)

Fig. 4-1 ■ Very true ■ Somewhat true

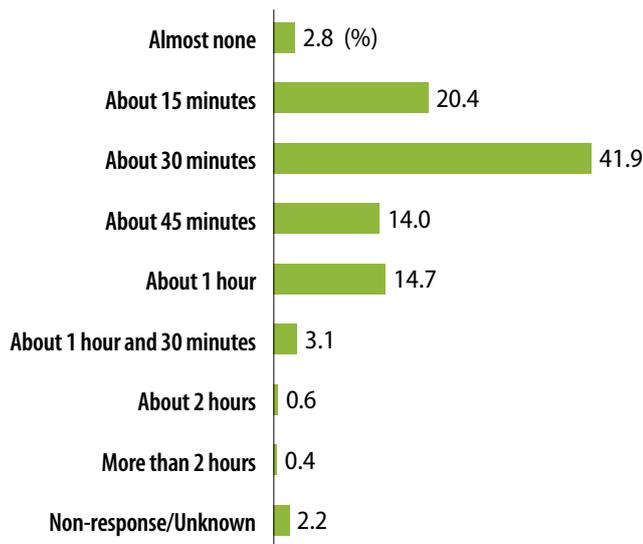


Q *How much does your child study at home on weekdays?*

Average Weekday Study Time at Home (first grade)

(Excludes studying for cram schools or after-school classes)

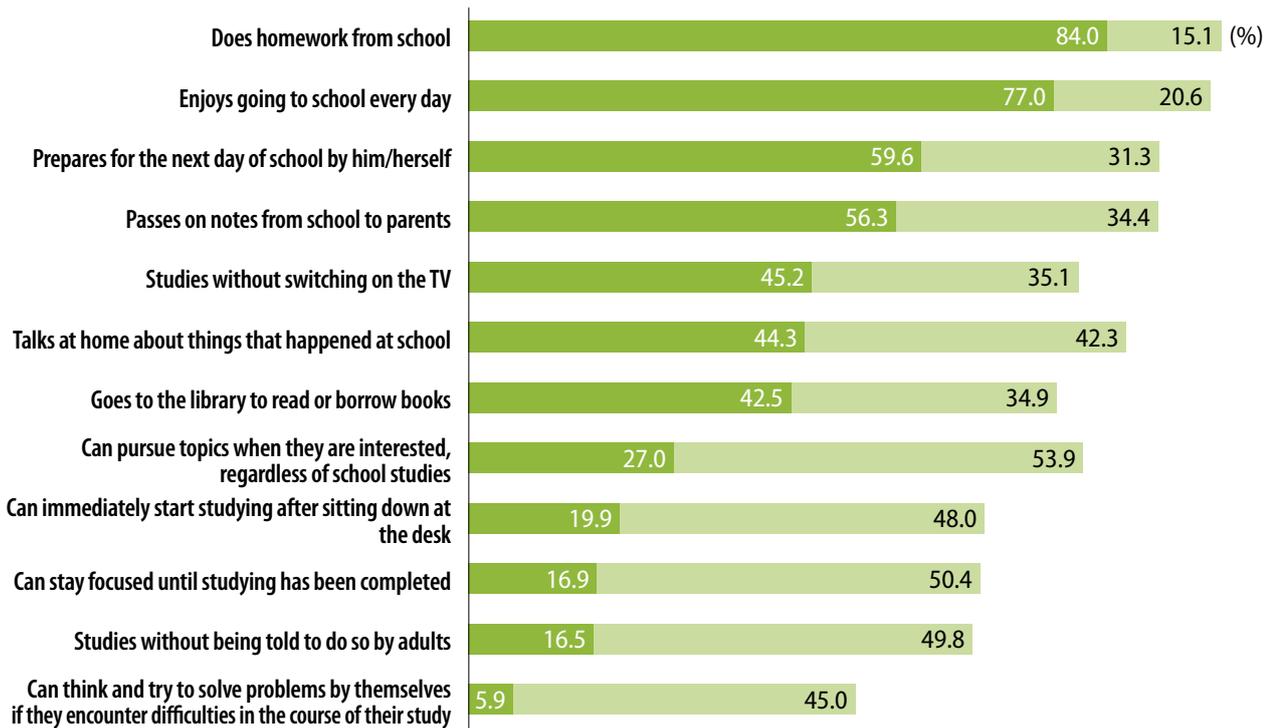
Fig. 4-2



Q Are the following statements true for your child currently?

Home Study (first grade)

Fig. 4-3 ■ Very true ■ Somewhat true



Description



96.3% of first graders in elementary school “like school.”
The percentage of children who concentrate and take the initiative to study at home is in the range of 60%.

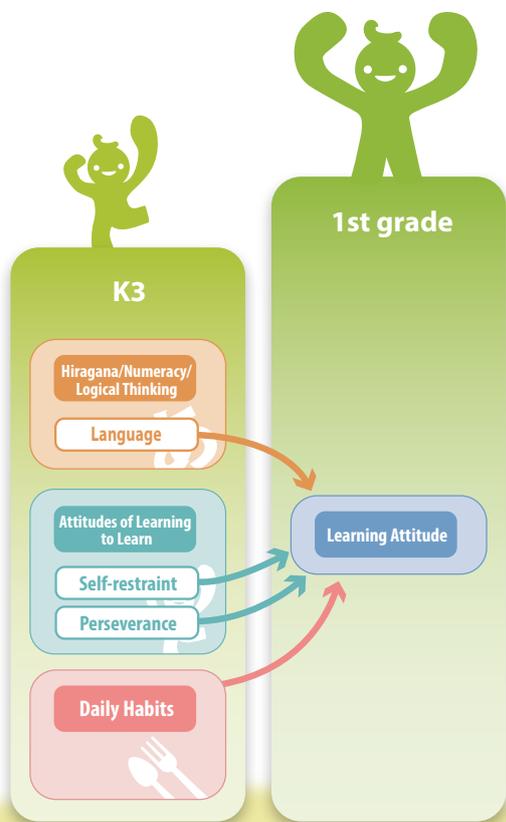
Fig. 4-1 indicates that a large number of children has happily adapted to school life, with 97.8% stating they “have close friends within the same class” and 96.3% reporting that they “like school.”

Fig. 4-2 indicates that the most common response for the amount of time children spend on studying at home was “about 30 minutes” at 41.9%, with the total of approximately 76% when including those who responded “about 15 minutes” and “about 45 minutes.” Fig. 4-3 shows that more than 90% of children use the time for school-related matters, with 99.1% of the respondents selecting “does homework from school,” and 90.9% selecting “prepares for the next day of school by him/herself.” On the other hand, only 67.9% responded “can immediately start studying after sitting down at the desk”; only 67.3% answered “can stay focused until studying has been completed,” only 66.3% answered “studies without being told to do so by adults”; and only 50.9% responded “can think and try to solve problems by themselves if they encounter difficulties in the course of their study,” between 50–60%. This indicates discrepancies in children concentrating when studying at home and taking the initiative to study by themselves in the first grade of elementary school.

4 Learning Attitude during the First Grade of Elementary School, and Parental Involvement during K3 Period

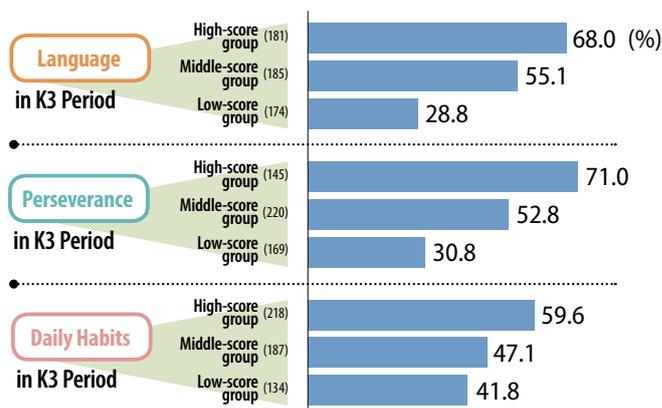
Development of Learning Attitude from K3 to First Grade

Fig. 4-4



Can Think and Try to Solve Problems by Themselves if They Encounter Difficulties in the Course of Their Study (first grade)

Fig. 4-5 Very true + Somewhat true



* **Scoring Method:** Points were calculated by giving 4 points to all “very true” responses, 3 points to all “somewhat true” responses, 2 points to all “not very true” responses and 1 point to all “not applicable” responses in each item. Only the respondents who answered completely were included in the analysis.

* **Three groups for “Daily Habits”:** Scores were calculated according to the above method for the items below, then were classified into three groups according to their average scores.
 - Can go to bed at the same time every night
 - Can fold his/her clothes after taking them off
 - Can stay seated until the end of the meal
 - Is not a picky eater
 - Can go to the bathroom and wipe him/herself alone
 - Can greet and thank others
 - Can put away toys and picture books after playing at home

* **Three Groups for “Perseverance”:** Scores were calculated according to the above method for the items below, then were classified into three groups according to their average scores.
 - Can take on challenges without giving up easily
 - Can complete activities once they are started
 - Can try different ways to achieve goals even when things don’t turn out as anticipated
 - Can confidently attempt anything they decide to do

* **Three groups for “Language” in K3 period:** See page 13

* Sample size indicated in brackets.



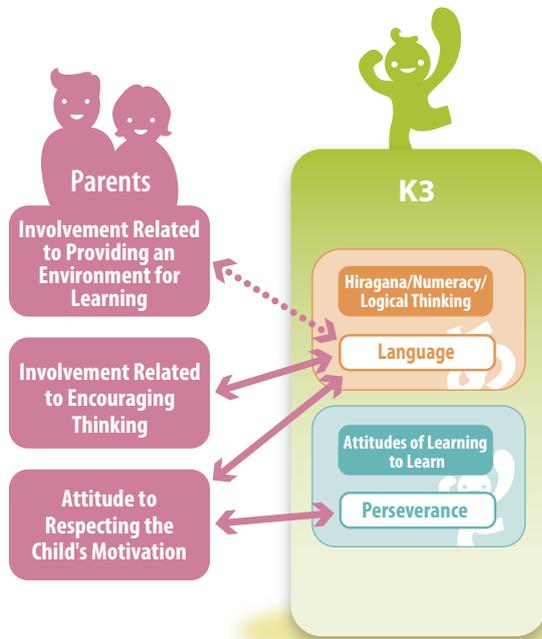
K3 “daily habits,” “perseverance” and “language” lead to learning attitudes in first grade.

We analyzed which of the skills/attitudes in K3 period influences learning attitude in first grade, and listed the results obtained in an illustration (Fig. 4-4). Here, we divided the responses at the K3 period into three from high- to low-score groups for each attitude of “daily habits,” “perseverance,” and “language,” and then compared the percentage of responses to “can think and try to solve problems by themselves if they encounter difficulties in the course of their study” in first grade. As shown in Fig. 4-5, the total percentage for “very true” and “somewhat true” on this question was 71.0% for the high-score group of “perseverance” in K3 period, 52.8% for the middle-score group and 30.8% for the low-score group. As for “language,” the percentage added to 68.0% for the high group, 55.1% for the middle group and 28.8% for the low group.

When children have developed the “daily habits” that are considered to be the foundation of learning, “perseverance” that enables them to accept challenges and solve problems, and “language” skills that enables them to freely explain their opinions to others, they are thought to be able to make a smooth transition in learning from day-care center/kindergarten to elementary school.

Children's Growth and Parent Involvement in K3 Period

Fig. 4-6



* **Scores on Perseverance:** See page 20.

* **Scores on Language in K3 period:** See page 13.

* **Three Groups for "Involvement Related to Creating Learning Environment":** Scores were calculated for the four items on page 15, then were classified into three groups according to their average scores.

* **Three Groups for "Involvement Related to Encouraging Thinking":** Scores were calculated for the four items on page 15, then were classified into three groups according to their average scores.

Description

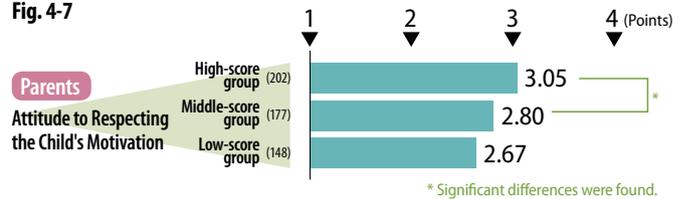


Parents' "attitude to respecting the child's motivation," "involvement related to encouraging thinking" and "involvement related to providing an environment for learning" during the K3 period are helpful to their child's "language" skills.

The "attitude to respecting the child's motivation," "involvement related to encouraging thinking" and "involvement related to providing an environment for learning" provided by parents were divided into three groups (high-, middle-, and low-score) and the scores of their children on "perseverance" and "language" were calculated respectively. This significant relationship was displayed in Fig. 4-6. Fig. 4-7 shows that the children of parents with high scores on "attitude to respecting the child's motivations" (i.e., high-score group) scored 3.05 points on "perseverance", middle-score group scored 2.80 points, and the low-score group scored 2.67, which indicates a tendency for children to score high in "perseverance" when their parents respect their motivation. Similarly, children also tend to score high in "language" when parents respect their motivation, provide an environment for learning and encourage thinking. It suggests that parents placing the emphasis on their child's feelings, allowing them to think for themselves, and providing an environment for learning during the K3 period facilitate the child's development.

Children's Perseverance Scores (K3)

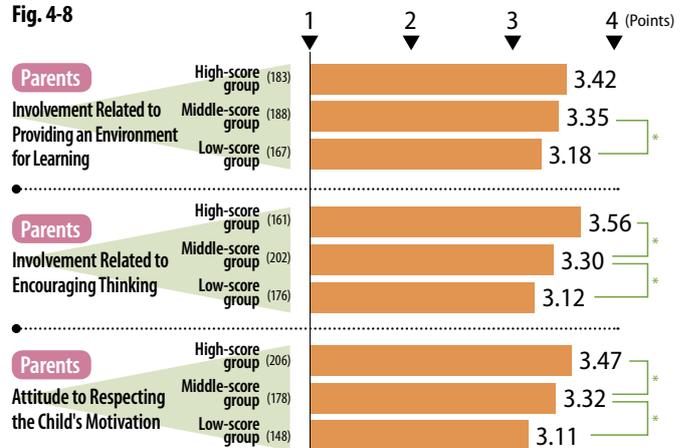
Fig. 4-7



* Significant differences were found.

Children's Language Scores (K3)

Fig. 4-8



* Significant differences were found.

* **Three Groups for "Attitude to Respecting the Child's Motivation":**

- Respect and support what the child wants to do
- Try to understand the child's feelings no matter what the situation
- Place priority on the child's opinions and requests in all situations
- Credits the child more than scold him/her
- Listen to the child's say when scolding him/her
- Let the child do what they want without ordering him/her about
- Allow the child to complete what they are trying to do without providing assistance

* Sample size indicated in brackets.

Insights from the Survey

Suggestion from this Survey for Developing Children's "Attitudes of Learning to Learn"



Takashi Muto

Professor at Shiraume Gakuen University

We have collected data through paper-based questionnaires sent to parents with children from the age of three years old once a year until the children reached the first year of elementary school. Redefining the term "non-cognitive skill (social-emotional skill)," which is frequently being discussed these days in the ECEC field, as "attitudes of learning to learn," we are conducting research on the relationship between these attitudes and language and literacy skills, and parental involvement, etc. As this study is based on longitudinal surveys involving the same people, it implicates causation, more than just correlation. Naturally, as the results are based on the opinions of the parents, they therefore have certain limitations, and the possibility exists that there are certain factors not included in the survey that affect the end results. It is therefore necessary to interpret the results by taking into account these biases.

The most significant contribution of this study was that we were able to suggest the process in which children's learning develops. The importance of "daily habits" is often emphasized, but from the survey it is noteworthy that these habits in K1 influence the "attitudes of learning to learn" in K2, and the "daily habits" in K3 affect their learning attitude in first grade. "Attitudes of learning to learn" include "collaborative skills," "perseverance," "curiosity" and "self-restraint," but the "collaborative skills" in K2 determine their attitude in the subsequent year, while "self-restraint" and "perseverance" in K3 affect the "attitudes of learning to learn" and their learning attitude in first grade. "Hiragana/numeracy/logical thinking" skills are developed in children from three years old; and the "language" skills in K3 are influenced by the level of "collaborative skills" in K2. Also, the "language" skills of K3 play an extremely important role in not only the "hiragana/numeracy/logical thinking" skills of first graders, but also in their "attitudes of learning to learn" and learning attitude in first grade.

These results indicate several tendencies that make up the "attitudes of learning to learn" in children, and it is clear just how important this is in learning in elementary school, particularly in forming the learning attitude. The results also indicate apparent differences in what is important depending on age. However, in addition to this, "hiragana/numeracy/logical thinking" show unique processes in

their developments, and all of these elements have a mutual effect on "attitudes of learning to learn." "Daily habits" also develop in children, influencing their learning attitude.

As for the purely intellectual perspective of children's reading and writing, and thinking skills, some tend to be good at these from an early age, and the "attitudes of learning to learn" partially affect them to further develop to a certain extent. "Attitudes of learning to learn" are mutually interactive with the learning attitude, and they are extremely important skills in the first year of elementary school and will probably act as a foundation that governs learning throughout elementary school in the future. The reason for this is that the foundation for learning during elementary school links the motivation to learn with concentration skills and helps children accept difficult challenges.

Understanding Child's Growth and Providing Support for Them



Kiyomi Akita

Professor at The University of Tokyo

Longitudinal research over the course of four years on the growth of young children has revealed three major findings. The first is the fact that some attitudes develop more than other skills in early childhood, while there are attitudes that weaken once they enter elementary school. This indicates the aspects we should be aware of related to children's development and not expect them to improve in every area in line with their age. "Hiragana/numeracy/logical thinking," showed steady growth but as for "daily habits," the rate of picky eaters and not tidying up does not show sufficient decreasing results. As for "perseverance" as part of the "attitude of learning to learn" the ability to take on challenges, complete activities once they have been started, try different ways to achieve goals, etc., weakened in elementary school first grade. Areas linked directly with schoolwork showed growth, while it is difficult to categorically state that growth in non-cognitive skills in "daily habits" and for achieving targets is sufficient. I wonder if this was something which parents have failed to focus on until now. Children develop within an environment of daily life, playing and learning. Providing support from multi-faceted viewpoints is important.

The second finding is that thanks to the longitudinal survey, it revealed the sequence in which the three skills develop. This

revealed certain relationships between all elements involved in growth, such as “daily habits” up until the age of three that help children develop “collaborative skills” and “perseverance” as “attitudes of learning to learn” when they are four years old. Furthermore, these “attitudes of learning to learn” help children develop “hiragana/numeracy/logical thinking” skills when they are five years old, and that the “perseverance” as part of the “attitudes of learning to learn” skills, and “hiragana/numeracy/logical thinking skills” help children develop their learning attitude. In order to acquire the skills and attitude required for learning from elementary school onward, “daily habits” must be established before anything, and then the “attitudes of learning to learn” cultivated through play. The results suggest that rather than focusing only on teaching hiragana, numeracy and logical thinking from an early age, it is more important to place the emphasis on cultivating the “attitude of learning to learn” through lifestyles and play that are appropriate for young children by following the sequence revealed in this survey. I am sure that this sequence is something of which parents will be confidently convinced.

And the third finding is the relationship between parent involvement and child’s growth. Although not mentioned in this report, the survey clearly indicated that the attitude toward childrearing and the interaction parents have with their children have a significant effect on their development regardless of the academic background or income of the parents and the kind of childcare facility, such as day-care center or kindergarten, the children are placed in. Respecting what children want to do, accepting their feelings, cultivating their motivations and sense of identity, and encouraging them to think helps to develop language skills. The results indicate that the best way to support child development to ensure they have the learning skills and attitude required for the 21st century is to provide them with a culturally rich learning environment, and guarantee opportunities for them to think actively for themselves.

Implications of the Analysis from Early Childhood to Elementary Childhood



Misako Aramaki
Full-Time Lecturer at Mejiro University

The results of the four-year longitudinal survey reveal the transformation in the skills of children from early childhood through to elementary childhood. With regard to “hiragana/numeracy/logical thinking,” the skills required for reading and writing kana characters

and performing simple calculations improve as children grow older. However, with regard to the skills/abilities of explaining things in order in their own words to other people and explaining reasons, no significant change was found in children around the time they entered elementary school. This consequently suggests that acquiring these skills depends on each individual.

With regard to the “attitudes of learning to learn,” no significant changes were found as age increased, although some skills had reached a high level in K1. For example, 94.8% of K1 showed curiosity toward new things. Consequently, all children have high curiosity in early childhood, but the key may be how long they are able to maintain it. Although certain discrepancies were seen in the items of “perseverance” and “self-restraint,” not all first graders had sufficiently mastered these skills, which indicates individual differences in children’s development. The skills required for children to stop something they are absorbed in to engage in a subsequent activity, or to complete something even when they are experiencing difficulties are closely related to whether children are able to perform tasks on their own initiative even when they do not feel up to it. The activities that children have to take part in once they have entered elementary school are more clearly defined than in kindergarten or day-care, and they must perform these activities within predetermined periods of time. This requires a certain amount of persistence. It is consequently important to further research how children can learn “perseverance” and “self-restraint” from early childhood through to elementary childhood.

The survey also revealed that the establishment of “daily habits” is related to the “attitudes of learning to learn” and “hiragana/numeracy/logical thinking.” This means that once learned during early childhood, these skills have a mutual effect on each other, which is thought to provide the foundation for the attitude to learning developed during elementary childhood. Based on the above findings, when considering what parents should pay attention to during early childhood, it is difficult to conclude what kind of special education or involvement will make a difference in development. If anything, it seems that the accumulation of daily interaction, such as placing the emphasis on shared reading and the daily interaction with them, may lead to children acquiring these skills. In other words, instead of simply providing children with what we think they need, it is essential to support them until they can run on their own according to their developmental stage, giving them attention without over-worrying.

Home Education from Early Childhood to First Grade of Elementary School Research Group Members

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* Titles and positions are correct at the time of the original publication of survey in Japanese.

- The summary of this survey can be downloaded from the Benesse Educational Research and Development Institute website.
<http://berd.benesse.jp/jisedai/>



Summary

Research on Home Education

from Early Childhood to First Grade of Elementary School
(Longitudinal Survey)

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