

## ARTICLE

## Socioeconomic Status and School Readiness in Japan

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**ABSTRACT** : The “first grade discipline problem” in Japanese elementary schools (e.g., some first-grade students being incapable of adapting to classroom discipline) is becoming increasingly common. This problem can be identified as a difference in school readiness. While many researchers around the world have explored the relationship between parents’ socioeconomic status (SES) and their children’s school readiness, little empirical research has been undertaken in Japan. This present study explores whether parents’ SES accounts for poorer school readiness among preschoolers in Japan. In addition, based on Kohn’s parental values theory, we examine whether high-SES parents are more likely to value child-rearing practices related to school readiness. To examine these research questions, we used data from the third Basic Survey on Childrearing Life (2008), which is a nationally representative large-scale dataset in Japan. Our findings are as follows: First, children of high SES are more likely to be socially and emotionally ready for school. However, our results suggest that only fathers’ SES affects children’s social and emotional readiness. As previous studies have pointed out, fathers’ involvement affects children’s social and emotional development. Thus, we can hypothesize that fathers of high SES are more likely to be involved in child rearing. Second, high-SES parents are more likely to value child-rearing practices related to social and emotional school readiness. According to Kohn’s parental values theory, both parents’ educational attainment and social stratification affect their child-rearing values. From this viewpoint, our results suggest that high-SES parents might have a better understanding of the importance of social and emotional development for school life through their own school and occupational experiences. Conversely, we also found that mothers whose husbands are routine non-manual workers, farmers, or self-employed workers are less likely to value helping their children to read and write before entering elementary school than those whose husbands are manual workers. Based on the findings of previous studies, low-SES mothers appear to emphasize the importance of nominal knowledge while high-SES mothers tend to value high-order cognitive skills. Our findings may help clarify the reasons why parental SES accounts for differences in school readiness among preschoolers in Japan.

**KEYWORDS**

\*school readiness  
\*social and emotional development  
\*socioeconomic status  
\*parental values

## 1. Background

### 1.1 Contemporary child-rearing policy in Japan

This study explores the relationship between parents' socioeconomic status (SES) and preschoolers'<sup>1)</sup> school readiness, drawing on a nationally representative large-scale dataset in Japan.

Since the 1990s, the Japanese government has begun paying more attention to early childhood education. In 2006, the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) revised the Basic Act on Education<sup>2)</sup> by adding article 10. This article clearly states that parents have the primary responsibility for their children's education and should endeavor to teach them the habits necessary for life, encourage a spirit of independence, and nurture the balanced development of their bodies and minds (MEXT, 2006). In Japan, before this revision, there were no laws that clearly stated the educational functions of families (Hamana, 2011). In addition, MEXT has launched several policies regarding child rearing at home: providing easily understandable information on child rearing to the public, promoting research and investigation into child-rearing support, and cooperating with local communities on activities that support child upbringing. To facilitate these new policies, MEXT budgeted \$53 million to enforce policies supporting child rearing in families in the 2016 fiscal year (MEXT, 2016).

The Central Council for Education (a national council under MEXT) reported that there are several descriptions of how recent parenting issues are caused by the decline of the educational functions of families. Indeed, the new legislations and policies reflect the growing sense of crisis over the diminishing educational functions of families (Hamana, 2011). In addition, the survey reports that over 80% of parents agree that the educational functions of families are declining (National Institute for Educational Policy Research, 2007)<sup>3)</sup>. The question, therefore, is how the decline in parental child-rearing ability will affect children's capacity to adapt to the school and classroom environment. One of the burning issues is the first-grade discipline problem (Masuyama & Yamashita, forthcoming).

In elementary schools, the number of students that have difficulty adapting to the classroom environment has been increasing since the early 2000s (MEXT, 2010). According to the survey conducted by the Tokyo Metropolitan Board of Education, over 50% of schools, which experienced higher than normal levels of deviant behavior among the first years, saw little or no improvement in such behavior by the end of the first school year. Interestingly, this problem even occurred in classes in which the homeroom teacher had over 30 years of teaching experience (Tokyo Metropolitan Board of Education, 2013)<sup>4)</sup>. In other words, one prominent possibility is that this problem might be caused by insufficient parenting at home rather than poor teacher quality. This is in accordance with the government's view of the decline of families' educational functions. The national survey conducted by Tokyo Gakugei University indicates that close to 20% of elementary schools currently face a significant first-grade discipline problem. According to this survey, first-grade students' deviant behavior is mainly defined as the following: walking around the classroom (80%), acting arbitrarily during homeroom activities (76%), and being unable to maintain a good posture (51%). The findings from this survey illustrate that some preschoolers cannot meet the behavioral demands of formal classroom settings. In other words, they lack "school readiness." It should also be noted that almost 70% of the schools experienced high levels of deviant behavior among first-year students in the month of April, the month in which school begins in Japan (Tokyo Gakugei University, 2007)<sup>5)</sup>.

### 1.2 Literature review

Over the past several decades, hundreds of definitions of school readiness have been documented (UNICEF, 2012; Pianta & Barnett, 2012). Traditionally, school readiness has been identified as children's academic ability (Bertram & Pascal, 2002). Recently, however, multidimensional features of a child's development have been identified under the umbrella of school readiness. In particular, the framework of the National Education Goals Panel (NEGP; Kagan, Moore,

& Bredekamp, 1995) is widely recognized among scholars as providing the five domains of school readiness (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006; Barbarin et al., 2008): 1) physical well-being and motor development, 2) social and emotional development, 3) approaches toward learning, 4) language development, and 5) cognition and general knowledge (Kagan et al., 1995). Using the framework, which stresses children's broader development beyond cognitive skills, comprehensive programs to improve children's school readiness have been developed internationally (Bennett & Tayler, 2006; Kreider, Caspe, Kennedy, & Weiss, 2007).

A vast body of research demonstrates that there is a relationship between school readiness and socioeconomic background. A well-known study by Hart and Risley (1995) found that economically advantaged peers show much higher levels of vocabulary than do their peers from families receiving welfare. Hoff (2003) also found that high-SES students have higher productive vocabularies than their middle-SES peers do. Snow, Burns, and Griffin (1998) pointed out that language and literature skills at a very young age are strong predictors of later achievement. A similar relationship has been observed in students' mathematics achievement. According to Garcia (2015), high-SES students exhibit higher math skills than low-SES students. Duncan et al. (2007) showed that math skills at the time of school entry have the greatest predictive power of later school achievement, followed by reading and then attention skills. Garcia (2015) also finds a correlation between children's socioeconomic background and their social and emotional development. Socioeconomically disadvantaged children exhibit lower levels of persistence, self-control, and social skills than do children from higher-SES families. Children's social and emotional development is necessary to meet the behavioral demands of formal classroom settings (Campbell & von Stauffenberg, 2008) and contributes to early school performance (Cooper & Farran, 1988; McClelland, Morrison, & Holmes, 2000; Bennett & Tayler, 2006). Consequently, "low-SES children tend to fall behind at a very early age, even before they enter formal school, and most are likely to stay behind" (Kagan, 2009, p.5).

In Japan, children's school readiness has long been discussed, mainly from the perspective of developmental psychopathology. Researchers in this field have a great interest in how children's behavior in early childhood affects their social adjustment throughout childhood and adolescence (Nakazawa & Nakamichi, 2007). On the other hand, how children's socioeconomic background affects their school readiness is only just beginning to be addressed. In addition, in Japan, little empirical research has been undertaken regarding the link between children's SES and their social and emotional readiness. Among Western researchers, this aspect of school readiness is considered just as important as academic skills (Rimm-Kaufman, Pianta, & Cox, 2000).

### 1.3 Research Questions

As we mentioned above, previous studies have also found a significant correlation between children's school readiness and their SES. Children's school readiness has long-lasting effects on their later success in school. As a result, "school readiness" is recognized as "a viable strategy to close the learning gap and improve equity in achieving lifelong learning and full developmental potential among young children" (UNICEF, 2012, p.4). In Japan, although the first-grade discipline problem has become an urgent issue, the reason for its occurrence has not yet been well understood. However, we do understand that this problem with the "school readiness gap" is connected to social and emotional development. Based on the scholarly reports mentioned above, we hypothesize that the socioeconomic disparity of parents leads to the school readiness gap among preschoolers in Japan. Children's social and emotional development contributes to their successful transition into school life and their progress throughout their school years (Abenavoli & Greenberg, 2016). Our analysis will provide new insights not only for the discussion on the "school readiness gap" but also for solutions to the first-grade discipline problem in Japan. In order to examine the relationship between parents' SES and children's school readiness in Japan, we address the following research questions:

1. *How does parents' SES affect children's school readiness?*

First, we investigate children's school readiness based on their socioeconomic background. In our first research question, we focus on children's social and emotional readiness before starting elementary school. Previous research found that preschool children of low SES are more likely to exhibit behavioral and emotional difficulties compared to their higher-SES peers (Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2005). Therefore, it is critically important to study children's social and emotional readiness from not only a developmental psychopathology perspective (as most research in Japan is based on) but also a sociological perspective.

2. *How does parents' SES affect their values of child rearing related to school readiness?*

Next, we explore the mechanism behind why high-SES children are more likely to be ready for school. While a growing body of research has shown an association between parents' SES and children's school readiness, it is still unclear as to why high-SES children are more likely to be ready for school. "Children's social and emotional development is strongly influenced by their relationships with their caregivers, other adults, siblings, and peers" (Zigler, Gilliam, & Jones, 2006, p.140). Based on Bronfenbrenner's (1979) ecological approach mentioned above, the family system is the primary influence on child development. In other words, parents have a major impact on their children's development.

In this study, we hypothesize that high-SES parents are more likely to highly value parenting practices that enhance their children's school readiness. Empirical research indicates that parental values have a significant effect on children's achievement and adjustment (Desforges & Abouchaar, 2003). To test our hypothesis, our study adopts Kohn's parental values theory (Kohn, 1969). Kohn designed a new type of study that examines the differences between social class and parent-child relationships, focusing on parents' values. Kohn found that parents' prior educational and occupational experiences have a significant effect on their child-rearing values. Parents who have limited education and engage in work that require following rules and taking orders place a greater value on child obedience than other parents. In contrast, parents who have been through higher education and work more autonomously tend to encourage their children to be autonomous and think for themselves. According to Kohn's theory, parental values could serve as a mechanism to link socioeconomic status with parenting practices. In our second research question, we investigate how socioeconomic status affects parental values related to school readiness.

## 2. Methods

### 2.1 Data<sup>6)</sup>

The data for our empirical analysis is from the Basic Survey on Childrearing Life (BSCL), which was conducted by the Benesse Educational Research & Development Institute in 1997 and repeated in 2003 and 2008 (it is a cross-sectional data rather than cross-sectional time-series data). The 2008 version of the survey (BSCL 2008) was collected from September to October, and we used this most recent one for our analysis. The BSCL is suitable for our research purpose since it collected information on mothers' child-rearing values, their socioeconomic status, and their children's school readiness. The BSCL 2008 captures a nationally representative sample of 6,131 parents whose children (aged 3 to 6 years) attended kindergarten or day care centers when they were surveyed. Self-administered questionnaires were distributed to 8,238 parents at 85 kindergartens and day care centers in Japan<sup>7)</sup>, with a response rate of 74.4 percent. The kindergartens and day care centers were chosen by purposive sampling, considering the population size and the population density of each municipality. The survey included 36 kindergartens and day care centers in urban areas, 26 in rural suburbs, and 23 in local counties.

The data was obtained from the Social Science Japan Data Archive (SSJDA) of the Center for Social Research and Data Archives, Institute of Social Science, University of Tokyo. The available dataset provided by SSJDA was restricted to 5,884 mothers, consisting of 3,069 in the Kanto metropolitan area, 1,743 in rural suburbs, and 1,072 in local

counties. This study utilizes the sample of mothers with children (aged 5 to 6) who were about to start school for the following reasons: (1) to focus on the factors affecting children's school readiness before starting elementary school, and (2) to eliminate the difference in their development due to age.

## 2.2 Variables

This study uses the following dependent variables to assess how SES affects (1) children's school readiness and (2) parental values related to school readiness.

*School readiness.* We used indicators of the extent to which children have acquired social and emotional skills. The BSCL 2008 asked mothers to evaluate their children's current skills including their children's ability to (1) keep a promise (e.g., time of watching a TV program and playing), (2) clean up after playing, and (3) be quiet in a public space (e.g., a train). Mothers rated the extent to which their children could perform each action independently (without their direction) to indicate a child's social and emotional development<sup>8</sup>. The following values were assigned to the responses: 1 = not yet, 2 = somewhat, 3 = almost, and 4 = completely.

*Parental values related to school readiness.* The study also set out to assess whether mothers value child-rearing practices that enhance their children's school readiness. The BSCL 2008 asked mothers to select one or more options from a list of various child-rearing values (BSCL, 2008). Among them, we use the following items as parental values related to school readiness: (4) whether the parent values regulating a child's daily routines, such as the time for going to bed and getting up; (5) whether the parent values ensuring a child does not use harsh or foul language; and (6) whether the parent values ensuring a child is able to read and write before entering elementary school. These are dummy variables (coded 1 = yes, 0 = no). Table 1 and Table 2 show the frequency distribution of school readiness and the related parental values respectively. Table 3<sup>9</sup>) presents the definitions of our independent variables and control variables. The summary of statistics of the independent variables is given under note 10.

**Table 1. Frequency Distribution of School Readiness**

	(1) A child can keep a promise (N = 1539)	(2) A child can clean up after playing (N = 1542)	(3) A child can be quiet in a public space (N = 1542)
Not yet	43	19	23
Somewhat	479	394	300
Almost	824	827	848
Completely	193	302	371

**Table 2. Frequency Distribution of Parental Values Related to School Readiness**

	(4) I regulate a child's daily routine (N = 1546)	(5) I ensure a child does not use harsh or foul language (N = 1546)	(6) I ensure that a child is able to read and write before entering elementary school (N = 1546)
No	454	590	1,102
Yes	1,092	956	444

**Table 3. Measurement of Independent and Control Variables<sup>10)</sup>**

Variable	Description
<i>Independent Variables</i>	
Father's Education	Categorical: Father's educational attainment. 1 = below high school, 2 = vocational school or junior college, 3 = university or higher qualifications.
Mother's Education	Categorical: Mother's educational attainment. 1 = below high school, 2 = vocational school or junior college, 3 = university or higher qualifications.
Financial Situation	Categorical: A family's financial situation (question: "Do you earn more than enough income to make ends meet?"). 1 = no surplus, 2 = not much more, 3 = somewhat more, 4 = comfortably more.
Father's Social Stratification	Dummy: Father's social stratification. Dummies: Professional non-manual worker (a professional or manager = 1) Routine non-manual worker (a routine non-manual employee = 1) Farming or self-employed worker (a farmer or self-employed worker = 1) Manual worker (a skilled or non-skilled manual worker = 1) Reference category: Manual worker.
Mother's Social Stratification	Dummy: Mother's social stratification. 1 = a full-time housewife, 0 = otherwise.
<i>Control Variables</i>	
Type of Family	Dummy: Type of family. 1 = a nuclear family (where the family consists of a father, mother, and child), 0 = otherwise.
Father's Age	Continuous: Father's age.
Mother's Age	Continuous: Mother's age.
Gender	Dummy: Child's gender. 1 = boy, 0 = girl.
Firstborn Child	Dummy: Child's birth order. 1 = firstborn child, 2 = otherwise.
Urban Area and Local County	Dummy: Area where the participant currently lives. Dummies: Urban Area = 1 Local County = 1 Reference category: Rural suburb

### 2.3 Model

Outcome variables that indicate children's school readiness are ordered categorical variables. In addition, our outcome variables that indicate parental values related to school readiness are nominal categorical variables (dummy variables). Generally, applying an ordinary regression model (ordinary least square methods) to these cases would violate some assumptions of this model. Therefore, we use the following logistic regression model. Specifically, when the dependent variable is an ordinal outcome, we use an ordered logistic model. Whereas, when the dependent variable is a binary outcome, we use a binary logistic model.

$$\log \left[ \frac{\Pr(y \leq m|\mathbf{x})}{1 - \Pr(y \leq m|\mathbf{x})} \right] = \tau_m - \mathbf{x}\boldsymbol{\beta} \quad \text{for } m = 1, \dots, J-1$$

$\Pr(y \leq m|\mathbf{x})$  is the probability of which outcome is less than  $m$  given  $\mathbf{x}$ .  $[\Pr(y \leq m|\mathbf{x}) / 1 - \Pr(y \leq m|\mathbf{x})]$  is the ratio of probabilities (odds).  $\boldsymbol{\beta}$  is a vector of coefficients with  $\mathbf{x}$  (a vector of independent variables), and  $\tau_m$  is the threshold. In the case of  $J = 2$  and  $\tau_1 = 0$ , the logistic regression model is a binary logistic model. The other is an ordered logistic model (Long, 1997; Long & Freese, 2006).

### 3. Results<sup>11)</sup>

Table 4 shows children's school readiness based on parents' SES, while Table 5 shows parental values related to school readiness based on parents' SES.  $\boldsymbol{\beta}$  denotes a vector of coefficients in the logistic regression model. It means the effect of a unit change in independent variable on the logit (the log of the odds). To interpret the value of  $\boldsymbol{\beta}$  easily, we use the odds ratio ( $e^{\boldsymbol{\beta}}$ ). For a unit change in independent variable, the odds are expected to change by a factor of  $e^{\boldsymbol{\beta}}$  with all other variables constant (Long, 1997; Long & Freese, 2006).

#### 3.1 School Readiness

First, we examined the relationship between children's school readiness and parents' SES. Table 4 indicates that, overall, children with high-SES parents are more likely to be ready for school in terms of social and emotional development. However, our results suggest that how parents' SES affects children's school readiness differs based on dependent variables. From the result of "(1) keep a promise," children whose fathers are professional non-manual workers are 1.748 ( $e^{0.558}$ ) times more likely to have the ability to keep a promise than those whose fathers are manual workers. Similarly, children whose fathers are routine non-manual workers are 1.573 ( $e^{0.453}$ ) times, and those whose fathers are farmers or self-employed workers are 1.748 ( $e^{0.558}$ ) times, more likely to have this ability than those whose fathers are manual workers. From the result of "(2) to clean up after playing," children whose fathers are professional non-manual workers are 1.387 ( $e^{0.327}$ ) times more likely to acquire the ability to clean up after playing than children whose fathers are manual workers. Children whose fathers are routine non-manual workers are 1.361 ( $e^{0.308}$ ) times, and those whose fathers are farmers or self-employed workers are 1.892 ( $e^{0.638}$ ) times, more likely to have this ability than those whose fathers are manual workers. The result of "(3) quiet in a public space" indicates that children's ability to be quiet in a public space is positively associated with their father's educational attainment and financial situation. We found that children whose fathers have higher educational attainment are 1.192 ( $e^{0.176}$ ) times more likely to acquire this ability than those whose fathers have lower educational attainment. Similarly, children whose fathers are financially comfortable are 1.128 ( $e^{0.120}$ ) times more likely to acquire this ability. Moreover, children whose fathers are farmers or self-employed workers are 1.388 ( $e^{0.328}$ ) more likely to have this ability than those whose fathers are manual workers.

**Table 4. School Readiness (Ordered logistic regression model)**

	(1) Keep a promise	(2) Clean up after playing	(3) Be quiet in a public space
<b>Education</b>			
Education (mother)	-0.061 (0.087)	-0.125+ (0.067)	-0.065 (0.079)
Education (father)	0.031 (0.077)	0.013 (0.069)	0.176*** (0.040)
Financial Situation	0.076 (0.070)	0.079 (0.060)	0.120*** (0.045)
<b>Social stratification</b>			
Housewife (mother)	0.091 (0.133)	0.174+ (0.105)	0.068 (0.165)
Professionals non-manual (father)	0.558*** (0.146)	0.327*** (0.104)	0.128 (0.098)
Routine non-manual (father)	0.453*** (0.143)	0.308** (0.140)	0.121 (0.103)
Farming and Self-employed (father)	0.558*** (0.212)	0.638*** (0.207)	0.328** (0.164)
<b>Control variables</b>			
Age (mother)	0.006 (0.016)	-0.017 (0.017)	0.003 (0.019)
Age (father)	-0.023 (0.014)	-0.034+ (0.018)	-0.023 (0.014)
Type of Family	0.010 (0.125)	0.092 (0.082)	-0.173 (0.140)
Gender	-0.192*** (0.074)	-0.028 (0.110)	-0.797*** (0.097)
Firstborn Child	-0.017 (0.112)	0.081 (0.098)	0.081 (0.098)
Urban Area	-0.228+ (0.118)	0.025 (0.105)	0.200 (0.127)
Local County	-0.011 (0.170)	0.288*** (0.104)	0.006 (0.162)
<b>Model statistics</b>			
$\chi^2$	47.147	148.305	374.785
$p$	0.000	0.000	0.000
$N$	1539	1542	1542

+  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Values in the table denote a vector of coefficients ( $\beta$ ).

Standard errors in parentheses are clustered standard errors at the prefecture level.

Parameter of thresholds is omitted due to the space limitation.



**Table5. Parental Values Related to School Readiness (Binary logistic regression model)**

	(4) Daily routine	(5) Language use	(6) Read and write skills
<b>Education</b>			
Education (mother)	-0.046 (0.094)	0.016 (0.082)	-0.207+ (0.114)
Education (father)	0.183*** (0.041)	0.124 (0.094)	0.079 (0.103)
Financial Situation	0.117 (0.079)	-0.040 (0.051)	-0.078 (0.066)
<b>Social stratification</b>			
Housewife (mother)	0.036 (0.097)	-0.029 (0.083)	0.188 (0.130)
Professionals non-manual (father)	0.166 (0.208)	0.408*** (0.156)	-0.147 (0.134)
Routine non-manual (father)	-0.040 (0.187)	-0.030 (0.155)	-0.286** (0.117)
Farming and Self-employed (father)	0.099 (0.276)	0.266 (0.314)	-0.445** (0.222)
<b>Control variables</b>			
Age (mother)	0.014 (0.023)	0.028+ (0.016)	0.004 (0.013)
Age (father)	-0.025+ (0.013)	-0.024+ (0.014)	-0.024 (0.018)
Type of Family	-0.145 (0.124)	-0.115 (0.132)	-0.105 (0.130)
Gender	0.290** (0.116)	-0.268+ (0.154)	0.189*** (0.072)
Firstborn Child	0.023 (0.135)	0.021 (0.101)	0.362*** (0.092)
Urban Area	-0.200** (0.102)	-0.034 (0.093)	-0.102 (0.189)
Local County	-0.433*** (0.144)	0.201 (0.170)	-0.086 (0.217)
<b>Model statistics</b>			
$\chi^2$	106.383	105.971	113.768
$p$	0.000	0.000	0.000
$N$	1546	1546	1546

+  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Values in the table denote a vector of coefficients ( $\beta$ ).

Standard errors in parentheses are clustered standard errors at the prefecture level.

Parameter of thresholds is omitted due to the space limitation.

### 3.2 Parental value

Next, we examined the relationship between parent's SES and their values related to school readiness. Table 5 indicates that both mothers' and fathers' SES affect mothers' parental values. From the result of "(4) Daily routine," we found that mothers whose husbands attained higher education are 1.200 ( $e^{0.183}$ ) times more likely to value regulating their children's daily routine. The result of "(5) Language use" suggests that mothers whose husbands are professional non-manual workers are 1.504 ( $e^{0.408}$ ) times more likely to ensure their children do not use harsh or foul language than those whose husbands are manual workers. From the result of "(6) Reading and writing skills," we found that mothers whose husbands are routine non-manual workers are 0.752 ( $e^{-0.286}$ ) times, and those whose husbands are farmers or self-employed workers are 0.641 ( $e^{-0.445}$ ) times, less likely to place value on ensuring their children can read and write before entering elementary school than those whose husbands are manual workers.

### 4. Discussion

Drawing on a nationally representative large-scale dataset in Japan, we began by exploring how parents' socioeconomic status (SES) affects their children's school readiness, focusing on social and emotional development. As we expected, our results are in accordance with the results of previous studies in other countries that found a correlation between parents' SES and children's school readiness. We found that high-SES children are more likely to be socially and emotionally ready for school. However, our results suggest that fathers' socioeconomic status has a higher impact on children's school readiness than mothers' SES. Regarding the ability to keep a promise or to clean up after playing, fathers' social stratification affected the extent to which their children acquire these abilities. With all other variables controlled, children whose fathers are non-manual workers or farmers / self-employed workers are more likely to acquire these abilities compared to children whose fathers are manual workers. In addition, children's ability to be quiet in a public space is also affected by fathers' educational attainment. Children whose fathers have higher educational attainment are more likely to gain these skills compared to those whose fathers have lower educational attainment. It is interesting to note that there is no clear relationship between children's school readiness and mothers' educational attainment, regardless of whether or not mothers are housewives, nor is there a clear relationship between school readiness and family financial situation.

Since many previous studies created the SES variable by combining information on parents' education, social stratification, and income (see Hoff, 2003; Garcia, 2015; Barbarin et al., 2008), it can be challenging to explain why fathers' socioeconomic status affects their children's readiness for school. One possible explanation would be that fathers play an important role in stimulating their children's social and emotional development. According to a report issued by the U.S. Department of Health & Human Services (Rosenberg & Wilcox, 2006), the way fathers play with their children has an important impact on the children's social and emotional development. Since fathers spend much more of their one-on-one interaction time with their infants and preschoolers in stimulating playful activity than mothers do, children learn how to regulate their feelings and behavior. Fathers also tend to promote children's independence and orientation to the outside world (Rosenberg & Wilcox, 2006). From this perspective of a father's educational role, our results might indicate that fathers of high SES are more likely to be involved in child rearing than those of low SES. Additionally, the difference in the extent of fathers' involvement might account for the gap in children's social and emotional readiness. Ishii-Kuntz (2004) explored the relationship between school-aged children's (10-15 years old) social and emotional development and their fathers' involvement by providing a comparison between Japan and the United States. She found that children whose fathers are actively involved in child rearing have higher social and emotional development than those with uninvolved fathers (Ishii-Kuntz, 2004). Our results suggest that fathers' involvement possibly mediates the link between children's social and emotional development and fathers' socioeconomic status.

We next explored the mechanism for how high-SES children are more likely to be ready for school. This study

hypothesizes that high-SES parents are more likely to value child-rearing practices that enhance their children's school readiness. We used Kohn's parental values theory (1969), which suggests a correlation between social class and parent-child relationships, focusing on parental values. Kohn suggested that parental child-rearing values are significantly affected by their educational attainment and occupational responsibilities. Our results suggest that, compared to those whose husbands are of low SES, mothers whose husbands are of high SES are more likely to value their children's social and emotional readiness. Mothers whose husbands have higher educational attainment highly value regulating a child's daily routine. Adhering to a good daily routine is a fundamental skill for adapting to school life. If children cannot adhere to a good daily routine, they are more likely to be late for school and lack focus in class. Based on Kohn's parental values theory, our results suggest that fathers with higher educational attainment might have a better understanding of the importance of having a good daily routine to school life, because of their own school experiences. Moreover, the child's skill of maintaining a daily routine would possibly be affected by their parents' child-rearing values. Similarly, mothers whose husbands are professional non-manual workers are more likely to ensure their children do not use harsh or foul language. From this finding, we can surmise that fathers who work as professional non-manual workers are more likely to understand the importance of communicating courteously, due to their own occupational experiences.

Our results also suggest that mothers whose husbands are routine non-manual workers and those whose husbands are farmers or self-employed workers are less likely to value helping their children to read and write before entering elementary school than those whose husbands are manual workers. How can we interpret this finding? DeBaryshe (1992) proposed the use of the following research framework to discuss readiness in terms of language and literacy skills: 1) nominal knowledge (i.e., an ability to name letters, numbers, colors, and other objects) and 2) high ordered cognitive skills (i.e., an ability to go beyond present facts to make prediction or comparison, draw conclusions, or create details not provided). Barbarin et al. (2008) summarized how parents' SES affects the discourse style with which they engage their young children, and their strategies that emphasize nominal knowledge versus high-order cognitive skills based on previous study findings (see, National Center for Education Statistics, 2002; Hart & Risley, 1995; Mikulecky, 1996). Barbarin et al. (2008) suggested that high-SES parents are more likely to emphasize high-order cognitive skills whereas low-SES parents tend to consider nominal knowledge as necessary skills for children. From this viewpoint, our results suggest that low-SES parents are more likely to value nominal knowledge as necessary for school readiness whereas high-SES parents tend to emphasize high-order cognitive skills. It should be noted that mothers of high SES read picture books to their children more frequently than do those of low SES<sup>12</sup>). This means that if we use different variables for literacy readiness related to high-order cognitive skills, the results might be contrary to that of this finding (that is, high-SES parents will likely value literacy readiness).

Finally, we will discuss policy implications and further research. When considering the adoption of any policy to solve or reduce the first-grade discipline problem in Japanese elementary schools, it is important to consider the school readiness gap and its relationship with family background. As previously mentioned, the main cause of the first-grade discipline problem has been recognized as the decline of the educational functions of families. Nevertheless, little consideration is given to the possibility that a child's family background accounts for whether he or she is ready for elementary school. As Honda (2008) pointed out, we should consider how to address the unavoidable disparity in families' educational functions. Our findings suggest that policymakers should begin to discuss how to influence and change parental values in order to improve children's school readiness. Parental values might change if parents become aware of and fully understand the skills necessary for their children's school readiness and the child-rearing practices to develop such readiness. Moreover, policymakers should devise appropriate and effective interventions to cultivate parents' knowledge and skills related to children's school readiness. The first-grade discipline problem might be solved if policymakers establish structures and systems that enable the alleviation of the impact of parents' SES on their children's school readiness.

Further research should clarify how to correlate parents' values and their children's school readiness. In other words, it is worth exploring how parental values affect actual child-rearing practices and how these practices lead to gaps in school readiness among children. Moreover, how parental conceptions of school readiness differ based on their socioeconomic background should be examined. These findings will hopefully shed new light on the debate regarding educational equity in elementary school.

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## Notes

- <sup>1)</sup> In this paper, the definition of "preschoolers" is children who go to (1) kindergarten, (2) day nursery, or (3) a unified type of early childhood education and care (ECEC) center: (1) kindergarten is defined as any school or educational institute providing a standard 4-hour service per day to children aged 3 to 5, and is supervised by MEXT; (2) day nursery is defined as a child welfare facility for children aged 0 to 5 who require childcare due to reasons such as a guardian's work commitments, and its supervision is under the Ministry of Health, Labor and Welfare (MHLW); and (3) a unified type of ECEC center is any new type of certified institution opened in 2006, which provides both education and child care for children aged 0 to 5, regardless of a parent's work status or other reasons (National Institute for Educational Policy Research, 2015).
- <sup>2)</sup> The purpose of *the Basic Act on Education* is to establish the foundations of education and promote education that opens the way to Japan's future. The former law was enacted in 1947 (MEXT, 2006).
- <sup>3)</sup> A Survey of Revitalization of Educational Functions of Families was first conducted in 2001 and repeated in 2007. The questionnaire of 2007 was distributed to 8,400 parents who had a child; they were selected by random sampling. The response rate was 11 percent (National Institute for Educational Policy Research, 2007).
- <sup>4)</sup> The percentage of teachers who faced the first-grade discipline problem are below: teachers with 1-year teaching experience are 14.8%; 2–5 years =17.3%; 5-10 years=20.9%; 10-20 years=10.4%; 20-30 years=15.1%; and over 30 years=16.2%. The percentages are similar across all public elementary schools in Tokyo (Tokyo Metropolitan Board of Education, 2013).
- <sup>5)</sup> Other features of the first-grade discipline problems are the following: having trouble concentrating in class due to other pupil's deviant behavior (51%); not paying attention to a teacher's instructions (45%); not organizing one's belongings (17%); not greeting as usually expected (12%); and not following lessons (10%) (Tokyo Gakugei University, 2007)
- <sup>6)</sup> The detailed information about the Basic Survey on Childrearing Life (BSCL) is available at <http://berd.benesse.jp/shotouchutou/research/detail1.php?id=3284> (Retrieved December 30, 2018)

7) BSCL 2008 does not include parents whose children do not attend kindergartens or day care centers. Japan has high enrollment rates in such institutions, with 98% of 5-year-olds enrolled in 2008 (MEXT 2008; MHLW 2008).

8) We replaced responses values 4 through 1 with 1 through 4.

9)

**Table 6. Summary of Statistics (N = 1,546)**

Variable	Mean	Standard Deviation	Min	Max
Education (mother)	1.801	0.703	1	3
Education (father)	2.072	0.893	1	3
Financial Situation	2.312	0.804	1	4
Housewife (mother)	0.550	0.498	0	1
Professionals non-manual (father)	0.262	0.440	0	1
Routine non-manual (father)	0.382	0.486	0	1
Farming and Self-employed (father)	0.057	0.232	0	1
Manual Worker (father)	0.299	0.458	0	1
Type of Family	0.785	0.411	0	1
Age (mother)	35.572	4.333	20	48
Age (father)	37.650	5.086	20	60
Gender	0.499	0.500	0	1
Firstborn child	0.501	0.500	0	1
Urban Area	0.521	0.500	0	1
Rural Suburb	0.308	0.462	0	1
Rural County	0.171	0.377	0	1

10) We referred to Masuyama and Yamashita (forthcoming) when we set these variables. To classify the social stratification, we referred to Ganzeboom & Treiman (1996) and Ishida (2004).

11) For missing data, we used list wise deletion. In addition, our results did not include one participant whose age is 66.

12)

**Table 7 Reading picture book to their children (Ordered logistic regression model)**

Variable	$\beta$
Education (mother)	0.451*** (0.100)
Education (father)	0.124 (0.070)
Financial Situation	0.237** (0.074)
Housewife (mother)	0.461*** (0.121)
Professionals non-manual (father)	0.226

**Table 7 (continued)**

	$\beta$
Professionals non-manual (father)	0.226 (0.199)
Routine non-manual (father)	0.082 (0.135)
Farming and Self-employed (father)	0.139 (0.198)
Age (mother)	0.018 (0.018)
Age (father)	0.008 (0.015)
Type of Family	-0.161 (0.089)
Gender	0.020 (0.076)
Firstborn child	0.825*** (0.140)
Urban Area	-0.374*** (0.113)
Local County	0.097 (0.211)
Model statistics	
$\chi^2$	449.905
$p$	0.000
$N$	1534

+  $p < 0.1$  \*\*  $p < 0.05$  \*\*\*  $p < 0.01$

Standard errors in parentheses are clustered standard errors at the prefecture level.

Thresholds is omitted due to the space limitation.

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