

The effects of parental involvement on children's education: a study in elementary schools in Indonesia

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The Indonesian government through the Ministry of Education has begun to emphasize the importance of parental involvement and community participation in children's education. However, there is a lack of research on parental involvement in Indonesia. The aim of the study is to provide insights into parental involvement in children's education in urban and rural areas in Java, Indonesia. The sample comprised 2151 second to sixth graders in 18 schools in three regions, DKI Jakarta, West Java, and East Java. Six aspects of parental involvement were measured using an adapted version of Epstein's parental involvement framework. Hierarchical regression analyses were conducted to examine the effects of the socioeconomic and demographic characteristics and different types of parental involvement on children's academic achievements as measured by the most recent Indonesian language and Mathematics grades. The finding shows that Indonesian parents are more strongly involved in their children's learning at home than at school. Parents show higher levels of involvement when mothers had higher levels of education, in particular with respect to parenting, communicating, volunteering, and learning at home. With regards to school settings, parents in urban schools show higher levels of involvement than parents in rural schools. In urban schools, highly educated parents were more involved in volunteering, decision making and collaborating with community than low educated parents. In contrast to urban schools, in the rural school setting, parents with low education show higher involvement than their highly educated counterparts. Volunteering and learning at home have small positive effects on students' mathematics achievement. Parenting and learning at home show small positive effects on students' Indonesian language achievement.

Keywords: elementary school, parental involvement, Indonesia.

Introduction

Across the globe, educationalists and policy makers are trying to improve student learning by focusing on parental involvement. Indonesia is no exception in this effort. The Indonesian government regulation number 17 of 2010 regarding management and implementation of education article 188, for example, states that "(1) community participation includes the participation of individuals, groups, families, professional organizations, entrepreneurs, and community organizations in the implementation

and quality control of education services, and (2) community as the implementers and users of educational outcomes." Also, according to the Law of the Republic of Indonesia on National Education System Number 20 of 2003 Chapter IV Article 8, "the community has the right to participate in the planning, implementation, monitoring and evaluation of education programs. Recently, in 2015, the government of the Republic of Indonesia through the Ministry of Education established a new unit named the Directorate of Family Education that is organized under the Directorate General of Early Childhood Education and Community Education. The establishment of this new directorate originally aimed specifically as a unit that focuses on providing family education and parents' education. This new directorate has

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four subdirectorates: Program and Evaluation, Education for Parents, Education for Children and Adolescents, and Partnership Directorates. The Directorate of Family Education has some important programs which include improving students' academic achievement, providing family education, and promoting school-family-community partnership. Therefore, with all of these regulations, laws, and the establishment of the Directorate of Family Education, the Indonesian government through the Ministry of Education has begun to emphasize the importance of parental involvement and community participation in children's education.

To realize these education policy goals of the Indonesian government, school principals and teachers must be aware of the important role of parents and community in improving the educational outcomes and they must start putting the aforementioned policies into practice by involving parents in their children's education, both at school and at home. Not long after the establishment of the Directorate of Family Education, the Minister of Education urged parents to accompany their children on the first day of their school year so that they would meet their children's teachers and other parents. Parents of students from elementary school to middle school levels were indeed seen together with their children at school on the first day of the school year. However, parental involvement in children's education goes beyond that. The literature on parental involvement shows that myriad parental involvement practices have positive effects on their children's academic achievements.

There has been an expanding body of research on parental involvement and its effects on student learning (e.g., Castro et al., 2015; Wilder, 2014; Xu et al., 2010). However, the research has a western bias, as this is where most of the studies were conducted. There is a need to examine the issues associated with parental involvement in education in places outside of Europe and the U. S. We cannot just assume that results from western studies are transferrable without any discussion of countries that have a different history and culture. As mentioned above, one objective of the establishment of the Directorate of Family Education under the Indonesian Ministry of Education is to strengthen home-school partnerships. However, little is known about how Indonesian parents are involved in their children's education both at home and school and how schools through teachers' invitation for parents to

be involved in their children's education in Indonesia. There is a study on parental involvement in Indonesia by Van der Werf, Creemers and Guldmond (2001), which was conducted in participating schools of a specific school improvement project. They found that compared to the other intervention programs in the school improvement project (teacher development, educational management, books and learning materials), the intervention program to increase parental involvement was quite effective in improving student achievement. However, we still lack knowledge about parental involvement in Indonesian schools in general.

Indonesia is a large country, ranked 4th in population in the world and 17th in land mass. There is an estimated total population over 256 million people with 300 local languages and groups with different ethnic backgrounds that spread across thousands of islands. In this study, we focus on Java, the most densely populated large island in Indonesia. To be more specific, this study was conducted in urban and rural areas in three provinces in Java, respectively Jakarta, West Java, and East Java. The present study aims to provide insights into parental involvement in children's education and how parental involvement is related to students' academic achievements in urban and rural areas in Java.

Urban and rural settings in Java have unique characteristics that may influence the degree of parental involvement. For example, the way of life in urban areas is fast while in rural areas it is more relaxed. Urban schools have better facilities than rural schools, in terms of the size of population, urban areas are densely populated whereas rural areas are sparsely populated, and therefore usually urban schools have larger enrolment numbers and consequently larger classes than those in rural areas. Also, differences in parents' educational attainment can be expected and parents in urban areas tend to be engaged in trade, commerce, and services, while parents in rural area people are mostly engaged in agricultural work. In terms of values, people in a rural community tend to be more traditional, for example until today there are people who still hold this myth "the more children the more fortune" and this may affect the involvement in their children's education. There are also parents who prioritize boys over girls for their education. The differences between urban and rural contexts may result in different parent-school relationships. With all these differences and distinctive cultures, we

are curious about the nature and effects of parental involvement in Indonesia and whether the results are different from existing studies conducted elsewhere. To begin with, we discuss complimentary theoretical lenses that we have used to better understand parental involvement in our study.

Theoretical perspectives on parental involvement

Parental involvement and its effects on children's learning can be understood from various theoretical perspectives. Well-known and frequently described perspectives are the ecological system theory, developed by Uri Bronfenbrenner (1977, 1979, 1986); Epstein's theory of overlapping sphere of influence and her framework of parental involvement (1987, 1995), Coleman's social capital theory (1988) and Bourdieu's cultural capital theory (1986).

We draw from all of these theories and the existing research on parental involvement to guide the analyses of our study. Below we describe these theoretical perspectives to define the concept of parental involvement and we present several research findings of the effects of parental involvement on children's academic achievements that can function as points of reference to evaluate the findings of our study in Indonesia.

Bronfenbrenner's ecological system theory and Epstein's overlapping spheres of influence theory

Bronfenbrenner's ecological systems theory provides an explanation for how several interacting socializing contexts have an influence on children's development within their surroundings or environments. For the present study we focus on the socializing contexts of family and school. Bronfenbrenner's ecological system model explains how parents and schools together can contribute to children's development (Bronfenbrenner, 1977, 1979, 1986). There are microsystems and macrosystems in this model. A microsystem is the most immediate setting in which the child lives. This is the most influential level in Bronfenbrenner's ecological theory. Parents, teachers, and school constitute the elements of a child's setting in the microsystem. Relationships in this level are bi-directional and they affect how a child grows. A macrosystem is the outermost level of the ecological model that encompasses cultural and societal beliefs that influence a child's development. Examples of this

would include the economy, religious and cultural values, and political system.

Although each of the two settings (home and school) can independently influence a child's development, together their partnership would offer a unique and stronger influence for students (El Nokali et al., 2010). A similar perspective, but with a sharper focus on the interacting socializing contexts, is provided by the overlapping spheres of influence theory formulated by Epstein (1987). In this theory, Epstein posits that the three spheres of influence, family, school, and community should interact and build partnership in order to directly affect student learning and children's development (1995). With her considerable years of research on parental involvement, Epstein (1995) constructed a framework of six types of parental involvement which are essential to students' learning and development and which we discuss later on when defining the concept of parental involvement.

Social capital theory

Epstein's overlapping spheres of influence theory is strongly linked to Coleman's social capital theory that asserts the importance of intergenerational closure or the social network of parents as one resource for the education of the children. Since the publication of "Equality of Educational Opportunity" in 1966 (known as The Coleman report), Coleman's work has greatly influenced educational research including the role of parental involvement in children's education (Dika & Singh, 2002). Coleman (1988) asserts the importance of the social capital within the family as a resource for education of the children. He defines social capital as a resource that inheres in the social relationships among actors within the structures that facilitate actions and productive activity of the actors. For example, the relationship among parents of the children as a social structure functions as the source of information channels, facilitating effective norms, and maintaining trustworthiness of the structure. A group of parents within which there is extensive trustworthiness is able to accomplish more than another group of parents without trustworthiness.

In Indonesia, with the enactment of the government regulation number 17 of 2010 article 188 regarding the management and implementation of education, schools are expected to establish partnership with parents. In Indonesian schools nowadays, including the participating schools in this study, there are school

committee and class representatives which can function as parents' social networks or provide what Coleman calls intergenerational closure (1988). Coleman perceives social capital as what parents do to promote their children's academic achievement, for example by school visits as a way to obtain useful information related to their children's school activities. Social capital might also be generated when parents work to improve skills, for example, helping their children do homework, or when they secure access to resources (e.g. books and study aids), or when they act as sources of social control (e.g. when there is parent-teacher agreement on children's expected behavior) (Lee & Bowen, 2006). Over the past few decades, there has been a growing interest in the concept of social capital due to its positive role in fostering positive educational outcomes. Numerous studies reveal the positive effects of social capital on students' academic achievement (e.g. test scores (Dufur et al., 2012) and grades (Strayhorn, 2010), educational attainment (Kim & Schneider, 2005), and educational aspirations of the youth (Byun et al., 2012). However, since social capital must be actively maintained through social relationships or networks, working-class or low-income parents due to their inflexible work schedules, lack of child care, or lack of transportation might generate less social capital than middle-upper class parents. Parents of majority culture or parents with better economic means are familiar with the cultural codes that enable them to build powerful networks with access to financial, cultural, and social resources.

Definitions and measures of parental involvement

There are various definitions of parental involvement in the literature. These definitions share the basic idea that parental involvement refers to parent behaviors related to the child's school or schooling that can be observed as manifestations of their commitment to their child's educational affairs (Bakker & Denessen, 2007). In a broader sense, parental involvement includes dispositions such as 'the dedication of resources by the parent to the child within a given domain' (Grolnick & Slowiaczek, 1994, p. 238), or 'parents' active commitment to spend time in the academic and general development of their children' (Borgonovi & Montt, 2012, p.13). Leading in the literature is Epstein's (1995) conceptual distinction of parental involvement into six types: 1)

parenting, 2) communicating, 3) volunteering, 4) learning at home, 5) decision-making, and 6) collaborating with community. Parenting is related to providing family support and conditions to support learning. Communicating is creating and maintaining two-way communication between school and home concerning school programs and student progress. Volunteering is to be involved as volunteers to support school programs at the school or in other locations. Learning at home is providing academic learning for children, for example helping children with their homework and discussing goal-setting. Decision making is participating in school decisions, governance and advocacy activities. Collaborating with community is to be actively involved in contributing services to the community. There are many other definitions of parental involvement and all of them share common views that parents' involvement can be at school, at home, or in relations between school and home.

The effects of parental involvement on students' academic achievements

There is a growing body of research that suggests the positive effects of parental involvement in children's education (e.g. Cheung & Pomerantz, 2012; Kloosterman et al., 2011; Topor et al., 2010; Wilder, 2014). Parental involvement is an indicator for explaining students' academic achievements (Fan & Chen, 2001; Yan & Lin, 2005). Regarding specific parental involvement behaviors, research has provided evidence that parents' home involvement (including parents helping children with their homework) and doing voluntary work at school have positive effects on students' learning and academic achievements (Dumont, Trautwein, Nagy, & Nagengast, 2014; Katz, Kaplan, & Buzukashvily, 2011; Ho & Willms, 1996; Van der Werf et al., 2001). Parental home involvement in children's learning of reading and writing is related to the development of early literacy skills (Senechal & LeFevre, 2002). Children's literacy experiences in the forms of storybook reading and parents' reports of teaching lead to fluent reading. Storybook exposure predicts "children's receptive language skills" (p.456), whereas parents' reports of teaching predict "concurrent and subsequent emergent literacy skills" (p. 456). Parental involvement behaviors and attitudes are not inseparable from the cultural capital that the parents possess. Cultural capital related to education includes access and exposure to printed

materials and parents' educational beliefs and practices at home that emphasize the importance of highbrow activities such as reading literature and attending theater and museum (Bojczyk et al., 2017; de Graaf et al., 2002). With regard to Indonesia, the adult literacy rate is high and comparable to other countries. According to UNESCO (2015), the literacy rate among the population aged 15 years and older is 95.38% while among the population ages 65 years and older the literacy rate is 70.06%. However, the access to highbrow activities is another thing.

What and how cultural capital influences parental involvement and in the end affects students' academic achievements, is elaborated below.

Cultural capital theory and the effects of socioeconomic background on parental involvement and students' achievements

The concept of cultural capital was introduced by Pierre Bourdieu and Jean-Claude Passeron to analyze the contribution of education and culture to social reproduction (Lamont & Lareau, 1988). According to Bourdieu (1986, p.47) "cultural capital can be embodied in dispositions of the mind and body, in institutionalized form such as credentials and degrees, and in the objectified state, for example possession of books and machines." Lamont and Lareau (1988) defined cultural capital as institutionalized, that is, it consists of broadly shared, high status cultural signals, such as behaviors, attitudes, and credentials, that are used for social and cultural exclusion. Pertaining to children's education, Bourdieu asserts that cultural experiences at home make students' adjustment at school easier, hence activating cultural resources into cultural capital (Bourdieu 1977a, 1977 in Lareau, 1987). Lareau (1987) posits that all social groups have cultural capital. However, parents with different socioeconomic backgrounds may show different types of involvement because of the variations in their habitus (that are predispositions toward certain types of behaviors, attitudes, and perceptions (Lee & Bowen, 2006). For example, parents with low educational attainment may display less parental involvement at school because they lack confidence and have negative educational experiences. Cultural capital differences are visible in the home involvement of parents, because parents with higher levels of cultural capital seem more able to create a stimulating home literacy environment. In line

with Bourdieu's cultural reproduction theory, numerous empirical studies have confirmed the positive direct effects of cultural capital on educational success (e.g. DiMaggio, 1982; Jaeger, 2011; Strayhorn, 2010; Tramonte & Willms, 2010) and educational attainment (Sullivan, 2001; de Graaf et al., 2000).

Although it is common to assume that parents with low socioeconomic background are not capable of providing their children with high quality parental home involvement, because of their lack of required cultural capital, there are, however, inconsistent findings in the literature about parents' socioeconomic background as a predictor of parental involvement in particular in the quality of parental homework involvement (e.g. Dumont et al., 2014; Graves & Wright, 2011).

To sum up, as we have mentioned earlier, the notion that parental involvement is influential on students' academic achievement is so appealing that policy makers and educators have considered that parental involvement is pivotal to children's academic success. Previous studies showed the positive effects of parental involvement and students' academic achievements (e.g. Cheung & Pomerantz, 2012; Kloosterman et al., 2011; Topor et al., 2010; Wilder, 2014). However, most of these studies were conducted in the Western contexts. Little is known about parental involvement and its effects on children's education in Indonesia despite the increasing effort from the government and policymakers to enhance family-school relationship. Hence this study aimed to fill the gap.

The present study

The present study attempts to answer three research questions: 1) how are Indonesian parents involved in their children's education? (2) how does parental involvement affect students' academic achievements? (3) how are parents with diverse socioeconomic backgrounds involved in their children's education?

In the present study, we hypothesize that all children, regardless of their socioeconomic status and demographic backgrounds in urban as well as rural areas benefit from parental involvement in their education. However, we also expect that some parents, in particular those in rural areas and those with lower socioeconomic backgrounds, exhibit lower levels of involvement.

With this study, we aim to expand the research on parental involvement and to gain more insight

in the parental involvement practices and their effects on student outcomes in the specific context of Indonesia. The findings of this study may also be beneficial for the policy makers in the Directorate of Family Education of the Indonesia Ministry of Education and the school boards in Indonesia as it provides information about Indonesian parents' involvement and whether that differs for specific social groups.

Method

Research context

This research was conducted in three provinces in Java, namely Jakarta, West Java, and East Java. Java is the most densely populated island in Indonesia that is a melting pot. An estimated 56.82% of Indonesia's population (or 152.499.000 people) live on this island (BPS, 2010). There are six provinces on this island (Jakarta, West Java, East Java, Yogyakarta, Central Java, and Banten). Jakarta, West Java, and East Java are the most populated provinces. The participating schools in the present study were selected with purposive sampling based on our knowledge on the diversity of the schools. Due to the huge number of the schools, bureaucracy, and accessibility to the schools, it was impossible to select schools with random sampling. We wanted the schools to represent diversity in the socioeconomic backgrounds of the students indicated by parents' educational attainment, income, and occupations.

In each province, schools were selected in one district in the city and two villages in a regency. These selected schools are considered to form a representative sample from the school population in Java. In total, there were 18 schools participating in this study.

The six schools in Jakarta differed with respect to the socioeconomic backgrounds of their students and were located in the same district in Central Jakarta.

The four urban schools in West Java were located in Bandung, the capital city. Two participating schools were located in rural areas in West Java (one school with parents predominantly working as farmers and one school with parents predominantly working as civil servants, factory workers, and merchants).

The four urban schools in East Java were located in the city of Pasuruan, with the backgrounds of the students are ranging from low to middle socioeconomic status. The rural schools were located in two villages in the Pasuruan regency. Parents in one school generally work as farmers and factory workers, while in another school parents' occupations are mostly farmers and fishermen and their socioeconomic status varied from low to middle.

Table 1 presents the demography of the students whose parents participated in the present study.

Table 1.
Demography of the students

School	Region	Total number of students	% Girls	Education of mothers			Education of fathers		
				% Low	% Middle	% High	% Low	% Middle	% High
1	Urban-Jakarta	83	48.19	12.20	79.27	8.53	5.06	83.54	11.40
2	Urban-Jakarta	85	43.53	4.3	86.96	8.74	1.28	43.59	55.13
3	Urban-Jakarta	114	50.00	15.93	76.99	7.08	3.96	80.19	15.85
4	Urban-Jakarta	132	45.45	0	12.21	87.79	0	9.52	90.48
5	Urban-Jakarta	108	56.48	0.93	36.11	62.96	0	27.36	72.64
6	Urban-Jakarta	117	47.86	3.48	42.61	46.09	2.68	41.07	56.25
7	Urban-West Java	148	52.70	8.78	72.97	18.25	4.86	81.25	13.89
8	Urban-West Java	115	54.78	23.48	73.04	3.48	14.55	83.64	1.81
9	Urban-West Java	130	49.23	0	10.08	89.92	0	7.26	92.74
10	Urban-West Java	127	55.90	0.79	34.13	65.08	0	34.40	76.60
11	Rural-West Java	155	54.19	3.25	93.89	2.86	2.67	69.33	28.00
12	Rural-West Java	131	55.73	77.86	22.14	0	80.77	19.23	0
13	Urban-East Java	111	46.85	8.26	66.06	25.68	8.49	68.87	22.64
14	Urban-East Java	122	49.18	22.5	66.67	10.83	24.17	64.17	11.66
15	Urban-East Java	108	45.37	33.33	56.48	10.19	25.00	63.00	12.00
16	Urban-East Java	114	59.65	4.46	64.29	31.25	8.18	63.64	28.18
17	Rural-East Java	114	55.26	80.73	19.27	0	69.72	27.52	2.76
18	Rural-East Java	137	56.20	95.38	4.62	0	73.87	26.13	0

Participants

Our study employs data obtained from survey questionnaires administered to parents on the one hand and reports of students' scores on Indonesian language and mathematics performance tests on the other. We investigated, in particular, the academic performance of students who were in grade 2 to 6 in the first semester of the 2016/2017 school year. The participants were 2151 parents of students from 90 classes in 18 elementary public schools in urban and rural areas in three provinces in Java (Jakarta, West Java, and East Java). The demographic variables in this study include: gender, age and grade level of the students, the caregivers' (mother or father or anyone else as the participant) educational attainment, and region (urban or rural school). Parent educational attainment is defined as the highest educational level that is completed by the caregiver, which in the present study was assessed on a 7-point ordinal scale with the following response options: (1) elementary school, (2) junior high school, (3) high school, (4) diploma (D1-D3), (5) bachelor's degree, (6) master's degree, and (7) doctoral degree. For the analysis purpose, this scale was classified into three categories; (1) elementary school became low education, (2) junior and senior high school were put into middle education, (3) diploma, bachelor's degree, and doctoral degree were classified as higher education.

Measures

Parental involvement at school and at home was assessed with a 31-item questionnaire adapted from Epstein's framework of parental involvement (Epstein & Salinas, 1993). Instead of basing the questionnaire on one single source, the development of the questionnaires also draws on studies on parental involvement of Graham-Clay (2005) and Hoover-Dempsey, et al. (2005). In the development process, the questionnaire went through back-to-back translation (English-Indonesian-English) and was proofread by two Indonesian fellows. Before administering the Indonesian version of the questionnaire to parents, each item in the six categories was shuffled to avoid respondents answering by following the pattern of answers in the same categories.

Parents were to respond to each of the statements on a four-point Likert-type response scale ranging from never (1), sometimes (2), often (3), to almost always (4). The following six

dimensions of parental involvement were assessed in this study: (1) parenting (six items, e.g. "I discuss the importance of good education with my child."), (2) communicating (five items, e.g. "If I have any questions pertaining to my child, I can contact my child's teacher."), (3) volunteering (five items, e.g. "I volunteer in my child's class activities (e.g. reading, cooking, arts and crafts, etc.)"), (4) learning at home (five items, e.g. "I help my child with homework."), (5) decision making (five items, e.g. "I have an influence over what happens in my child's classroom, e.g. by providing suggestions regarding learning activities in class."), (6) collaborating with community (five items, e.g. "I am involved in celebrations with the locals in the school area that are conducted by the school (e.g. Chinese New Year, the Islamic New Year, etc.).

Students' academic achievements in the present study were measured by the most recent mid-term mathematics and Indonesian language grades. The mid-term tests were not standardized tests, each teacher in every participating school developed the tests themselves. The teachers graded the test score on a range of 1-100. Since the tests were not standardized tests, for the analysis purpose, we standardized the grades within the classrooms to take into account the differences in the measures. By standardizing the grades (Z-scores), we have equal mean scores for every classroom. Since there was one school and two teachers who were reluctant to share the students' grades, there are different numbers of students in the analyses of the effects of socioeconomic background on parental involvement and students' academic achievement (N=1970).

Procedures

The data collection was conducted after the researcher obtained research permits from the Ministry of Home Affairs, the Ministry of Home Affairs' General Directorate of National and Political Unity, the Ministry of Education and Culture through the Head of Education Bureau in each province, Provincial Governments, the Board of National Unity and Politics, and the participating schools. The survey questionnaires were sent to parents through their children.

The front page of the questionnaires contained some information for the parents: we explained that we were conducting research into parents and their children's education in Indonesia. Parents may choose to answer on their own or together

with their spouse. There were no correct or incorrect answers as we were solely interested in their experiences and opinions. Parents were asked to select the answer most appropriate according to their experience. Anonymity was guaranteed. Parents were given three days to complete the questionnaire and return it to their child's teacher. They were told that by participating in this research they would be contributing to education improvement efforts in Indonesia, in particular in establishing home-school partnership. All parents were invited, but not obliged to participate. We received 2151 completed questionnaires from the parents. Since there were parents who had more than a child in every school, we could not count the number of parents who chose not to participate in every class.

Two measures of academic achievement were obtained from the administration office in each school: the students' mid-term scores of mathematics and Indonesian language.

There were seventeen schools that provided the students' mathematics and Indonesian language mid-term test scores. Teachers of grade two to six in a school in Bandung, West Java, a teacher of grade two in a school in Jakarta, and a teacher of grade three in another school in Bandung, West Java were reluctant to share the students' grades and refused to do so.

Analysis

To answer the research questions, the following analyses were conducted. First, reliability tests were performed to assess the consistency of the parental involvement scales. Second, correlational analyses were conducted to assess the relationships between the parental involvement scales. Third, regression analysis was performed to test the relations between the socioeconomic status of the parents (indicated by the educational attainment of the mothers), parental involvement and children's achievement scores. Third, regression analysis was performed to test the relations between the socioeconomic status of the parents (indicated by the educational attainment of the mothers), parental involvement and children's achievement scores. Because we had more than two independent variables we used adjusted R-squared, that are not affected by the number of predictors in the model (Field, 2013). Because of the large sample size there were only marginal differences between R-squares and adjusted R-squares ($< .002$).

Results

Reliability and descriptive statistics of the parental involvement scales

The alpha coefficient for the six aspects of parental involvement in the present study is .83, suggesting that the scale has a relatively high internal consistency. In Table 2 the descriptive statistics for the responses of the parents to the statements addressing different aspects of parental involvement are presented. As can be seen, the mean scores for almost all items of two categories, parenting and learning at home were above the scale midpoint of 2.5. "I make sure that my child attends school in compliance with all rules and regulation turned out as the second common activity by parents after "fulfilling their child's basic needs" with the mean scores respectively are 3.49 and 3.58. Among the five items of learning at home, "I help my child with homework" and "My child and I talk about his/her activities and what was learned at school" were the most common practices by the parents with mean scores respectively are 3.28 and 3.27. We have to be cautious in comparing the mean scores because they refer to different parental involvement practices. For example, in communicating items such as "I meet my child's teacher at school during report card day (parent-teacher conference)", "If I have any questions pertaining to my child, I can contact my child's teacher", "I take the initiative in contacting my child's teacher" do not involve high frequency of parents' behaviors or practices, and this results in the mean score below the scale midpoint.

Correlations among the six types of parental involvement

Table 3 presents correlations among the six types of parental involvement. All types of parental involvement were positively correlated. Parenting and learning at home show the highest correlation ($r = .68$). On the other hand, parenting and collaborating with community have the weakest correlation ($r = .25$), indicating that there was not a strong relation between the extent to which parents meet the basic obligations at home and their involvement in the community.

Table 2.
Descriptive statistics for items for parent questionnaires addressing six aspects of parental involvement

<i>Parents about parental involvement</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>
<i>Parenting (α = .68)</i>			
I fulfill my child's basic needs (food, clothing, and shelter).	3.58	0.56	2149
I make sure that my child attends school in compliance with all rules and regulations.	3.49	0.64	2146
I discuss the importance of good education with my child.	3.02	0.70	2139
I handle conflict with my child quite well.	2.76	0.97	2147
I supervise my child when he/she watches television.	3.03	0.75	2147
I supervise my child when he/she plays computer games.	3.28	0.65	2150
<i>Communicating (α = .64)</i>			
I meet my child's teacher at school during report card day (parent-teacher conference).	2.27	0.74	2150
I read the school newsletter.	1.83	0.80	2095
I take the initiative in contacting my child's teacher.	2.18	0.80	2142
If I have any questions pertaining to my child, I can contact my child's teacher.	3.23	0.72	2139
I receive information regarding my child's educational/academic progress from his/her teacher and/or homeroom teacher.	2.68	0.79	2146
<i>Volunteering (α = .72)</i>			
I volunteer in my child's class activities (e.g. reading, cooking, arts and crafts, etc.).	1.50	0.70	2147
I volunteer in maintaining of the school building (e.g. garden maintenance, repainting the school along with other parents and teachers).	2.03	0.91	2147
I volunteer in coordinating school field trips or out-of-school activities.	1.77	0.84	2144
I volunteer in supervising school field trips or out-of-school activities such as museum or zoo visits.	1.48	0.68	2144
I volunteer in my child's school activities (e.g. carnivals, birthday parties, education fairs, etc.).	1.76	0.81	2139
<i>Learning at home (α = .78)</i>			
I participate in learning activities with my child, such as playing educative games.	2.76	0.71	2148
My child and I talk about his/her activities and what was learned in school.	3.27	0.71	2149
I help my child with homework.	3.28	0.69	2150
I help my child prepare for tests and examinations at school.	2.54	0.89	2149
I read books to my child or hold a discussion regarding books.	3.20	0.70	2146
<i>Decision making (α = .66)</i>			
I voice my opinions regarding the school and its development.	1.70	0.69	2145
I am involved in the school's decision-making process regarding curriculum and learning strategies, school financial planning, or the recruitment of teachers and staff.	2.02	0.90	2141
I have an influence over what happens in my child's classroom, e.g. by providing suggestions regarding learning activities in class.	1.43	0.725	2143
If I need a change in my child's school, I can contact the school committee to voice my opinions.	1.74	0.734	2146
I vote for parent representatives in my child's class and the school committee.	2.02	0.95	2139
<i>Collaborating with community (α = .69)</i>			
My child and I visit the local library.	2.20	0.74	2139
I encourage/take my child to participate in community-based activities within the local school community as informed by my child's teacher.	1.54	0.69	2145
I am involved in cooperative programs between the school and the local community (e.g. programs for the orphaned and elderly, local health clinics, local villages).	1.55	0.67	2133
I am involved in celebrations with the locals in the school area that are conducted by the school (e.g. Chinese New Year, the Islamic New Year, etc.).	1.94	0.90	2149
I am involved in religious activities at my child's school (e.g. zakat fitrah, Idul Qurban, Christmas celebrations, Galungan celebrations, Waisyak celebrations, etc.).	1.67	0.81	2147

Table 3
Bivariate Correlations between Six Aspects of Parental Involvement

<i>Measure</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Parenting (6 items)	-					
Communicating (5 items)	.49*	-				
Volunteering (5 items)	.29*	.51*	-			
Learning at home (5 items)	.68*	.48*	.33*	-		
Decision making (5 items)	.27*	.51*	.60*	.29*	-	
Collaborating with community (5 items)	.25*	.48*	.65*	.26*	.59*	-

Level of parental involvement

Table 4 presents the means of parents' ratings for different types of parental involvement, according to different demographic characteristics, which are school settings (urban vs rural) and educational attainment of the mother. As can be seen, in urban schools in general, parents with middle and high levels of education show higher levels of involvement in their children's education compared to the parents with a low level of education. Interestingly, parents with low education in rural schools show slightly higher involvement in volunteering, decision making and collaborating with the community than highly educated parents in the same school setting.

SES differences regarding parental involvement

Table 5 shows the results of regression analysis predicting each parental involvement variable by region and educational attainment of the mother. Parents in families with higher levels of education consistently showed higher involvement than those with lower levels of education. With regard to region, parents in urban schools show higher involvement compared to parents in rural schools.

SES background of the parents explains 16% of the variance in parenting, 17% in communicating, 7% in volunteering, 14% in learning at home, 5% in decision making, and 3% in collaborating with community.

Table 4.

Mean scores for six types of parental involvement according to demography and mothers' educational attainment (range 1-5)

Education of mothers in each region	Parenting		Communicating		Volunteering		Learning at home		Decision making		Collaborating with community	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
<i>Urban</i>												
Low	3.08	.42	2.35	.46	1.63	.52	2.89	.54	1.75	.52	1.72	.55
Middle	3.24	.42	2.49	.47	1.69	.55	3.08	.49	1.83	.54	1.72	.51
High	3.39	.41	2.67	.46	1.92	.57	3.21	.49	1.89	.54	1.92	.53
<i>Rural</i>												
Low	2.86	.37	2.14	.39	1.55	.39	2.62	.50	1.69	.43	1.81	.48
Middle	3.06	.43	2.09	.43	1.46	.41	2.84	.48	1.44	.39	1.59	.45
High	3.31	.42	2.13	.44	1.42	.40	3.10	.54	1.39	.35	1.55	.49

Table 5

Hierarchical Multiple Regression Predicting Parental Involvement (N= 2151)

	Parenting			Communicating			Volunteering			Learning at home			Decision making			Collaborating with community		
	b	SE	β	b	SE	β	b	SE	β	b	SE	β	B	SE	β	b	SE	β
(Constant)	3.05	.02		2.44	.03		1.71	.03		2.89	.03		1.89	.03		1.82	.03	
<i>Education of mothers</i>																		
Middle vs low	.19**	.03	.21	.05	.03	.05	-.02	.03	-.02	.21**	.03	.19	-.08*	.03	-.08	-.11**	.03	-.11
High vs low	.35**	.03	.36	.22**	.03	.20	.21**	.04	.17	.35**	.04	.29	.00	.04	.00	.08*	.04	.07
<i>Region</i>																		
Urban vs rural	-.19**	.02	-.18	-.35**	.03	-.30	-.19**	.03	-.16	-.24**	.03	-.19	-.28**	.03	-.23	-.07*	.03	-.06
Adjusted R ²	.16**			.17**			.07**			.14**			.05**			.03**		

*p <.05 **p < .01

Relations between socioeconomic backgrounds, parental involvement, and student achievement

The results of the hierarchical regression analysis to examine the effects of socioeconomic background and types of parental involvement on student achievement are presented in Tables 6 and 7. Model 1 shows the effects of educational attainment of mothers on students' academic achievements. This model shows that educational attainment of mothers explains 5% of the variance in Mathematics and 7% in Indonesian achievements. Although relatively small, the effect of educational attainment of mothers on students' achievement was found to be statistically significant.

Model 2 includes two demographic characteristics, educational attainment of mothers and school settings (urban and rural schools) as the independent variables. These demographic characteristics explain 9% of the variance in students' mathematics achievement and 7% of the variance in Indonesian language achievement. From this model we can see that after controlling the effects of educational attainment of mothers, school settings add 4% of the variance in students' mathematics achievement and do not give any addition to the variance in students' Indonesian language achievement. School settings are negatively related to students' academic achievements both in Mathematics and Indonesian language.

Model 3 includes only the 6 measures of parental involvement, showing gross effects of parental involvement. Four types of parental involvement (parenting, communicating, volunteering, and learning at home) have positive effects on students' mathematics achievement. Decision making and collaborating with community have no correlations with students' mathematics achievement and these types of parental involvement are negatively associated with students' mathematics achievement. This model also shows that three types of parental involvement (parenting, volunteering, and learning at home) have positive effects on students' Indonesian language achievement, whereas communicating has negative effect on students' Indonesian language achievement. Decision making and collaborating with community also have no correlations with students' Indonesian language achievement and negatively related to Indonesian language achievement. In this model, parental involvement explains 5% of the variance in students' mathematics

achievement and Indonesian language achievement.

Model 4 adds the same set of demographic variables (educational attainment of mothers and school settings) to model 3, showing to what extent the relationship between parental involvement and students' academic achievement is influenced by these background characteristics. Controlling for the effects of educational attainment of mothers and school settings result in the reduction of coefficients for all six types of parental involvement on students' mathematics achievements. Parenting and communicating are no longer significantly associated with students' mathematics achievements. Decision making and collaborating with the community have no correlations with students' mathematics achievement and are negatively related to mathematics achievement. The size of the coefficients of volunteering and learning at home are reduced respectively from .26 and .19 in Model 3 to .19 and .17 in Model 4. However, the relationship between volunteering and learning at home and mathematics achievement remains significant in Model 4. Volunteering shows a slightly stronger effect than learning at home on students' mathematics achievement. This model shows that parental involvement only adds 1% of the variance of students' mathematics achievement after controlling the demographic backgrounds (educational attainment of mothers and school settings).

With regard to students' Indonesian language achievement, decision making and collaborating with the community show no correlations to this independent variable. Controlling for the effects of educational attainment of mothers and school settings result in the reduction coefficients for all six types of parental involvement on students' Indonesian language achievement. In this model, only parenting and learning at home show positive effects on students' Indonesian language achievement. Volunteering has no longer an effect on students' Indonesian language achievement. Decision making is negatively related to students' Indonesian language achievement. The size of the coefficients of parenting and learning at home are reduced respectively from .31 and .19 in Model 3 to .20 and .12 in Model 4. After controlling the demographic backgrounds (educational attainment of mothers and school settings), parental involvement also only adds 2% variance of students' Indonesian language achievement.

Overall, the present study reveals that learning at home has small positive effects on students' achievement in mathematics and Indonesian language, while volunteering only shows a positive

effect on students' mathematics achievement. The educational attainment of mothers is also a significant factor predicting students' academic achievements in the Indonesian context.

Table 6
Hierarchical Multiple Regression Predicting Students' Mathematics Achievement (N=1970)

Variable	Model 1			Model 2			Model 3				Model 4		
	b	SE	r	b	SE	β	b	SE	β	r	b	SE	β
<i>Education of mothers</i>													
Middle vs low	.19**	.05	.09	-.05	.06	-.02					-.13*	.06	-.06
High vs low	.62**	.06	.27	.31**	.07	.13					.19**	.07	.08
Adjusted R ²	.05**												
<i>Region</i>													
Urban vs rural				-.49**	.06	-.22					-.45**	.06	-.20
Adjusted R ²				.09**									
<i>Parental involvement</i>													
Parenting							.16*	.07	.07	.17**	.07	.07	.04
Communicating							.16**	.06	.08	.13**	.02	.06	.01
Volunteering							.26**	.06	.14	.09**	.19**	.06	.01
Learning at home							.19**	.06	.10	.18**	.17**	.06	.09
Decision making							-.14*	.06	-.07	.02	-.15*	.06	-.08
Collaborating with community							-.28**	.06	-.14	-.01	-.19**	.06	-.10
Adjusted R ²							.05**				.10**		

*p < .05 **p < .01

Table 7
Hierarchical Multiple Regression Predicting Students' Indonesian Language Achievement (N=1970)

Variable	Model 1			Model 2			Model 3				Model 4		
	b	SE	r	b	SE	β	b	SE	β	r	b	SE	β
<i>Demographics</i>													
<i>Education of mothers</i>													
Middle vs low	.29**	.05	.15	.19**	.06	.10					.12	.06	.06
High vs low	.72**	.06	.31	.59**	.07	.26					.47**	.07	.21
Adjusted R ²	.07**												
<i>Region</i>													
Urban vs rural				-.21**	.06	-.09					.19**	.06	-.09
Adjusted R ²				.07**									
<i>Parental involvement</i>													
Parenting							.31**	.07	.14	.19**	.20**	.07	.09
Communicating							.03	.06	.02	.09**	-.08	.06	-.04
Volunteering							.19**	.06	.10	.08**	.11	.06	.06
Learning at home							.19**	.06	.08	.18**	.12*	.06	.06
Decision making							-.20**	.06	-.11	-.01	-.18**	.06	-.09
Collaborating with community							-.10	.06	-.05	.01	-.03	.06	-.02
Adjusted R ²							.05**				.09**		

*p < .05 **p < .01

Discussion

The purpose of the present study was to gain insight in the involvement of Indonesian parents in their children's education and how their involvement affects their children's academic achievement. Three questions were investigated: (1) how are Indonesian parents involved in their children's education? (2) how are parents with diverse socioeconomic backgrounds involved in their children's education? (3) how does parental involvement affect students' academic achievements?

For this study we were able to develop a reliable Indonesian language measure of parental involvement in children's education. With this measure, parent involvement in general and involvement related to Epstein's six types of involvement, in particular, can be assessed.

With respect to the first research question, we found that Indonesian parents were more involved in parenting, communicating, and learning at home compared to volunteering, decision making, and collaborating with the community. This finding suggests that Indonesian parents are more strongly involved in their children's learning at home than at school. This finding is different from findings from The Netherlands and USA, where parents with a higher degree of education showed significantly more involvement at school (Bakker & Denessen, 2007; Lee & Bowen, 2006; Xu et al., 2010).

Regarding the second question, about the involvement of parents with diverse socioeconomic backgrounds, we found that parents showed higher levels of involvement when mothers had higher levels of education, in particular with respect to parenting, communicating, volunteering, and learning at home. With regards to school settings, parents in urban schools showed higher levels of involvement than parents in rural schools. In urban schools, highly educated parents were more involved in volunteering, decision making and collaborating with community than low educated parents. In contrast to urban schools, in rural school setting, parents with low education showed higher involvement than their highly educated counterparts. This finding could be explained by the fact that parents with high education who live in rural areas may be working in the city, working six days a week or having double jobs that makes it difficult for them to be participating at school.

Finally, with respect to the third research question, how parental involvement affects

students' achievement, both volunteering (in other studies called school-based involvement or participation at school) and learning at home (home-based involvement) although relatively small, had positive effects on students' mathematics achievement. Parenting and learning at home showed positive effects on students' Indonesian language achievement. Interestingly, higher involvement in decision making and collaboration with community were negatively associated with students' achievements in mathematics and Indonesian language. A possible explanation for this finding is that parents who are more involved in decision making and collaborating with community may provide support at school level but less support at home, which may result in lower students' achievements. In other words, parental involvement at home is more child-directed than parental involvement at school and might yield higher students' achievements. Another interesting finding is that communicating was found to have no effect on students' mathematics achievement and it was negatively associated with students' Indonesian language achievement. This finding is in line with previous studies that suggest that low performance may be the cause of an increase in communication between parents and schools. It is not parents' involvement that affects student outcomes, but the reverse: student outcomes affect parent involvement (McNeal, 2012).

The present study shows the differences in levels of parental involvement from parents with diverse socioeconomic backgrounds. Highly educated parents are found to be more involved in their children's education than low educated ones, which supports Bourdieu's cultural capital theory that educational attainment of parents as a form of cultural capital enables parents to promote educational success of their children (Bourdieu, 1986). The finding is also consistent with Bourdieu's notion of differences in educational habitus which is supported by existing studies (Jaeger, 2011; Lee & Bowen, 2006; Nguon, 2012). Children profit from their parents' cultural capital embedded in their knowledge, language, and mannerism or, in Bourdieu's term, their habitus (Dumais, 2006). Consequently, children whose parents are from high socioeconomic status develop better academic skills (Jaeger, 2011).

The study finding that shows the positive relationship of mothers' educational attainment and parental involvement is in line with the findings of several existing studies (Ho, 2003;

Nguon, 2012; Park et al., 2011). Mothers with high education are assumed to have a better ability in creating a supportive learning environment at home and to be more involved with the learning process of their children (Nguon, 2012).

Our study finding that reveals the positive effects of parental involvement (although relatively small) on students' academic achievements are consistent with other existing studies (Cheung & Pomerantz, 2012; Kloosterman et al., 2011; Topor et al., 2010; Wilder, 2014). Especially the effects of home involvement on students' mathematics and Indonesian language achievements is in line with Castro et al. (2015), who argue that the strongest association between parental involvement with students' achievement was found when parents maintain communication with their children about school activities and schoolwork and promote the development of reading habits which are two practices measured in the parental home involvement in this study.

The effects in this study are generally small, indicating weak effects of parent involvement on student achievement. The weak effects of this study may be due to the fact that we have used teacher-specific achievement data at one specific time point. The students' mathematics and Indonesian grades were taken from the mid-term grades of the first semester of academic year 2016-2017. The mid-term tests were not standardized tests. The only standardized test for elementary school is the final exam for grade 6. Hence, in this study we had to standardize the achievement scores within classes, which did not enable the assessment of parent involvement effects between schools, teachers and classes. Moreover, Fan and Chen (2001) argue that a stronger relationship of parental involvement and students' academic achievement may be found if the measure of academic achievement is a more general type, such as grade point average or combined grades in several academic areas. Also, they argue that a weaker relationship between parental involvement and students' achievement is found when the achievement is measured in specific areas, such as mathematics and reading.

A typical finding of the present study is that parental involvement at home was stronger than parent involvement in school. There are some possible factors that might explain why Indonesian parents may be less involved at school, in particular in volunteering, decision making, and collaborating with the community. First, the

educational capabilities of parents, especially those with lower educational attainment, may prevent parents from being involved in school. Lareau (1987) argues that low educated parents have a low sense of self-efficacy when it comes to their children's education, and tend to rely strongly on the teacher to educate their children. Parents with low education may also tend to believe that education is a separate process that takes place at school under the responsibility of a teacher, while the role of the parents is merely to provide the basic needs of their children and to get them to school. These socially defined parental role constructions, however, are subject to change (Hoover-Dempsey, 2005).

Schools can help remove the barriers with regard to cultural capital by establishing home and school relationships that focus on the family as the point of departure instead of focusing largely on the school (Posey-Maddox & Haley-Lock, 2016). Interventions to increase parental involvement can be built on each family's unique strengths (Valdes, 1996; Hill & Craft, 2003; Lee & Bowen, 2006). Schools have to take into account "parents' assets, interests, varied life contexts, and other forms of engagement in the home or broader community" (Posey-Maddox & Haley-Lock, p. 23). Further, Posey-Maddox and Haley-Lock (2016) suggested that both school and parents engage in "two-way, collaborative dialogues about each party's needs, hopes, and expectations related to family-school relationships and their lived realities" (p. 25). Productive partnership between parents and schools is more likely to be achieved "when schools understand, acknowledge, and reward all involvement efforts" (Lee & Bowen, 2006, p.215). However, schools and parents cannot do it alone. This approach also requires institutional and structural changes, for example providing adequate systems of funding and support for public education and employment and other economic supports for families. In this way, schools can be more inclusive in enhancing parental involvement practices, irrespective of their socioeconomic status.

However, specific to the Indonesian context, teacher invitation and school emphasis on collaborative relationship with parents are also dependent upon some restrictive factors. A first possible factor is the power distance between school and parents. This factor, which is a well-known dimension of Hofstede's cultural differences theory (Denessen et al., 2001), might explain why parents are less involved in their children's school.

In contexts with a large power distance, the division of responsibilities and the hierarchical relation between teachers and parents gives little opportunities for parents to be involved in school matters.

Another factor may be the schools' policy and the role of school leaders. Especially in a cultural context with a large power distance, parental involvement may more strongly depend on the school's willingness to give parents a voice in school matters and to act as advocates for their children's learning (Hoover-Dempsey, 2005). A strong, transformational school leader may

stimulate teachers to invite parents to be involved. There is little research on the effects of school leadership on parents' involvement. It would be interesting to examine the role of school leadership on parental involvement in children's education in further research.

To conclude, this study on parental involvement in Indonesia gave insights into the validity of theoretical frameworks on parent-school partnerships across cultures. It also gave insights in typical patterns of parental involvement and the effects on student outcomes in the specific context of Indonesia.

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