

**Social and Cultural Capital and Learners' Cognitive Ability:  
Issues and Prospects for Educational Relevance, Access and Equity  
Towards Digital Communication in Indonesia**

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**Abstract**

In the educational context, the necessity of recognizing the structure of relations among social and educational institutions by examining how individuals' different social and cultural experiences affect the educational learning outcomes towards global digital communication. The current study examined the interplay of Social and Cultural Capital orientation, cognitive learning ability, and family background. The descriptive correlational research design was employed. It adopted two research instruments, namely the Social and Cultural Capital Questionnaire (SCCQ) and the Otis-Lennon Scholastic Ability tests (OLSAT), to a total of 377 undergraduate college students of select universities in Indonesia. The results of the study showed that the respondents manifest a high level of social and cultural capital orientation, with literacy having the highest factor. Likewise, the respondents have an average cognitive level of ability. Test of difference showed that respondents whose parents with high educational achievement exhibit high social competence, social solidarity, cultural competence, and extraversion, social solidity, and extraversion. Similarly, fathers' education is the single variable which spelled difference on the student's cognitive ability implying students whose fathers have high academic qualification exhibit high cognitive ability. Test of relationship showed that literacy practices and global-cultural competence are correlated to students' cognitive ability. Finally, family income is a predictor of students' high level of cognitive ability and social and cultural capital orientation. The implications of the results were discussed within, and suggestions were made for future research.

**Keywords:** *Cognitive Ability, Educational Opportunity, Social and Cultural Capital, Sociology of Education*

**Introduction**

Education is a venue for social transformation, social mobility, and the vanguard of growth and development for the emerging world's economies. Without access to the relevant and quality

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educational system, the efforts of countries for development will be futile. The direct relationship between economics and education has been emphasized by various scholars (Budiharso & Arbain, 2019; Camilleri & Camilleri, 2020; Chabbott, 2013; Fägerlind & Saha, 2016; Green, 2013; Kruss, McGrath, Petersen, & Gastrow, 2015; Shephard, 2010) where literacy is associated to the well-being of the people and the nations' economic development. One of the essential functions of education is the production and development of human resources who will be the agents of change and societal transformation. No less than the United Nations Educational, Scientific, Cultural Organization (Tang, 2015) outlines the fundamental principles of Education 2030 Agenda and the Sustainable Development Goal 4 (SDG4) to promote the rights of every individual to have full access and enjoyment to education as mechanism to achieve the sustainable development since millions of children around the world are still deprived of the educational opportunities. This can only be achieved with the concerted effort and commitment of nations around the world to tackle down the educational challenges and form systems of education that are relevant, inclusive, and equitable to all learners.

At present, educational institutions of the world are challenged to promote equitable learning outcomes to students since achievement gap is still an issue (Ainscow, 2016; Buckley, 2010; Clark, 2014; Darling-Hammond & Friedlaender, 2008; Fatimah & Santiana, 2017; Nadelson et al., 2020; Ohlin, 2019; Perry, 2009; Speed, Pair, Zargham, Yao, & Franco, 2019). They are advocating educational equity calls to address inequity in student learning, which is attributed to issues on gender, race, family income, and cognitive disability. Embracing educational equity in the schools is a way of supporting transformative education (Godhe, Lilja & Selwyn, 2019; Vossoughi, Hooper & Escudé, 2016). Meanwhile, cognitive ability of students plays a crucial role in the development of countries' workforce for they will become the leaders of the next generation, hence investment to their development should start in examining the interplay of their socio-economic status and how they relate to their social and cultural capital and cognitive ability is highlighted in this present study. The necessity of recognizing the structure of relations among social and educational institutions by examining how individuals' different social and cultural experiences affect the educational learning outcomes should be considered. The need for education practitioners and sociologists to address the issues and gaps affecting access and equity in higher education is a way of transforming institutional culture and effectiveness.

### **Social Capital and Cultural Capital**

This study promotes understanding of the prevailing social and cultural capital of higher education institutions, which will provide necessary actions on how to adequately address the gaps and disparities existing in the educational system. Social and cultural capital has been espoused by Bourdieu,(1977) which prompted studies concerning aspects of individual interaction and habitus. The theory is influential in understanding social class advantage, which is also essential to study the social context of educational institution contexts on how individual's social and cultural exposure and experiences relate to their educational learning outcomes —considering that educational institutions as one of the educative agencies are a significant site of social and cultural reproduction where inequalities are prevailing. Students gathered in school come from various families that differ in terms of family income, language, ethnic identity, economic class, geographical locations, and the like. They show differences in school and serve as the basis of their interaction and participation in learning activities. For Bourdieu, family influences are the strongest predictor of students' cognitive ability, where success in education fundamentally depends on one's exposure to social and cultural capital. As a result, knowledge leads to the domination and advantage of those upper class, leaving the poor at a marginalized position.

### **Research Gap and Relevance to Literature**

This study situates its claims to Bourdieu's social and cultural capital relative to the cognitive ability of students in the context of the Indonesian educational system. In such a way, a deeper understanding of the unequal educational outcomes may be appropriately addressed. This study provides direct evidence in which social and cultural capital shape the educational system of modern Indonesia. This study also hopes to strengthen the empirical findings on the positive relationship between social and cultural capital to students' cognitive ability. However, as the research gap, there are still inconsistencies in the influences of social and cultural capital on educational inequality. Hence, it remains unconfirmed. In countries such as the United Nations, Brazil and some other European countries, it was revealed that no relationship has been found between cultural capital and academic achievement of students (Burger, 2016; Edgerton & Roberts, 2014; Gaddis, 2013; Hu & Wu, 2019; Jæger, 2011; Marteleto & Andrade, 2014). Similarly, among Asian countries such as Japan and Korea, the negative relationship has been found between cultural capital and students' academic achievement (Byun, Schofer, & Kim, 2012;

Lee & Shouse, 2011; Yamamoto & Brinton, 2010). In the previous studies in the Indonesian context have exemplified that social and cultural capital positively correlates with students' educational attainment (Wu, 2008; Xie & Ma, 2019; Xu & Hampden-Thompson, 2012). Such inconsistencies prompted the researcher to re-examine the interplay of social and cultural capital to Indonesian students' cognitive ability. The result of the present study hopes to address the shortage of studies regarding the variables being explored. Like any other developed country, Indonesia puts prime importance on education as a vehicle of social transformation and development (Lee, Huang & Law, 2016). The Central Government of Indonesia initiated the development of Indonesia's national strategy as a response to the United Nations 2030 Agenda called Indonesia's education modernization 2035. It encapsulates eight fundamental principles, rooted and anchored in the Indonesian context (Zhu, 2019). Increasing access to education by addressing the educational gaps and inequality is one crucial component of the modernization of education in Indonesia.

### **Purposes of the Study**

This study examined the interplay of select socio-economic profile, social and cultural capital, and students' cognitive ability among Indonesian college students. It specifically sought to answer the following research questions:

- 1) What the students' level of social and cultural capital orientations is?
- 2) Is there a difference between the social and cultural capital orientations when grouped according to selected variables?
- 3) What is the students' level of cognitive ability?
- 4) Is there a difference between the respondents' cognitive level when grouped according to selected variables?
- 5) Is there a significant relationship between social and cultural capital orientation and the respondents' cognitive ability?
- 6) What predicts the social and cultural capital orientation and cognitive ability of the students?

## Methods

### Research Design

The study used a descriptive survey correlational research design to investigate the relationship between social and cultural capital orientations and the cognitive ability of Indonesian learners. The survey component ascertains the prevailing social and cultural capital orientations of the respondents and relates it to their cognitive ability. The use of correlational research design measures the association between two variables under study to find out whether a positive or negative relationship exists (Grimes & Schulz, 2002; Williams, 2007).

### Research Participants, Sampling Procedure and Ethical Considerations

A total of 377 respondents systematically sampled from a total population of 2000 students from five universities in Indonesia. Determination of sampling size was based on the use of a free online software Raosoft <http://www.raosoft.com/samplesize.html> (Arora, 1994; Wilson, 2016) set with the margin of error of 5%, confidence level of 95%, and response distribution of 50%. Using a systematic non-random probability sampling technique, the complete list of respondents was requested from the university registrars of the participating universities with the three as the select random start number. Table 1 below presents the personal background of the respondents. It can be seen in that table that the major contributors of the study females (61%) compared to males (39%), whose mothers are mostly college level (45%) followed by high school/ senior high school graduates (30%), their fathers mainly were college level (47%) succeeded by college graduates (43%). As a whole, the majority of the respondents are earning USD 3001 and above (49%).

**Table 1.**

*Background of the Samples*

	Category	Frequency Distribution (n=377)	Percentage Distribution (%)
Gender	Male	148	39
	Female	229	61
Mothers Education	Elementary Level	4	1
	High School Level	22	6
	High School/ Senior High	112	30
	College Level	171	45
Fathers Education	College Graduate	68	18
	Elementary Level	0	0
	High School Level	10	3

	High School/ Senior High Graduate	27	7
	College Level	178	47
	College Graduate	162	43
Family Monthly Income	Below USD 10000	27	7
	USD 1001-2000	56	15
	USD 2001-3000	109	29
	USD 3001-above	184	49

This study was guided by the following research ethics considerations. First, data privacy and informed consent forms were approved by the university ethics committee to be signed by the respondents of the study. Second, orientation on the purposes of the study was done by the researcher prior to the administration of the instruments. Thirdly, the anonymity of the respondents and the institution was observed by not mentioning names.

### Research Instruments

The study used two adopted research questionnaires, namely the Social and Cultural Capital Questionnaire (SCCQ) and the Otis-Lennon School Ability Test (OLSAT). Pishghadam & Zabihi, (2011) developed the SCCQ consisted of 42 items with five dimensions, namely social competence ( $r=.84$ ), social solidarity ( $r=.73$ ), literacy ( $r=.78$ ), global-cultural competence( $r=.76$ ), and extraversion ( $r=.86$ ). The instrument has a reliability of is 0.87. Meanwhile, to measure the cognitive learning ability, the OLSAT was used. It is a test of abstract thinking and reasoning ability among college students. The test yielded verbal and verbal scores having 21 subtests, organized into five areas, namely verbal comprehension, verbal reasoning, pictorial reasoning, figural reasoning, and quantitative reason (Ahmann, 1985; Otis, 1988).

### Procedure

This study was conducted within a four-month time period. The data-gathering period lasted for one month. Before the formal gathering period, the university authority's approval and permission to do the study was initiated in the first week. Notice to proceed for the conduct of the research was issued during the second week. After securing the appropriate permit, the researcher identified the respondents using the inclusion criteria set in this study. Likewise, proper and appointment with the students were conducted for the formal gathering for another one week. The orientation of the research's purposes and objectives was done to the participants. The administration of the

two research instruments was done by the researcher with the appropriate permit and proper coordination to avoid conflict of schedule. The research ethics considerations were strictly followed by the researcher. After gathering the students' responses, they were coded and subjected to data cleaning and statistical analyses for one month. The gathered data were analyzed using SPSS version 25.0. Finally, results analysis, interpretation, and report writing were done for one month.

### **Data Analysis**

To analyze the quantitative data gathered, descriptive and inferential statistics were used. Descriptive statistics such as mean, standard deviation, frequency, and percentage were used to present the profile, social and capital orientations of the respondents, and their level of cognitive ability as well as the normality of the responses. The inferential statistics, it made use of t-test, ANOVA, and Pearson r determine the differences and relationship between the selected profile, social and cultural orientations, and the level of students' cognitive ability. Moreover, multiple regression analysis was used to determine the predictor of Social and Cultural Capital orientations. To interpret the SCCO of the students, the five-point Likert scale was used: Strongly Agree/ Very High (4.20-5.00); Agree/ High (3.40-4.19); Undecided/ Moderate (2.60-3.39); Disagree/ Low (1.80-2.59); strongly Disagree/ Very Low (1.00-1.79). Consequently, the interpretation of the result from the OLSAT was based on its standard scales and description from Superior to Low cognitive ability level.

## **Results and Discussion**

### **Research Question 1. What is the Students' Level of Social and Cultural Capital Orientations?**

Table 2 presents the respondents' level of social and cultural orientations. Results revealed that the respondents have a high level of social and cultural capital orientation ( $M=3.96$ ,  $SD= 0.46$ ). Interestingly, literacy obtained the highest mean ( $M=4.24$ ,  $SD= 0.90$ ) interpreted very high, followed by global-cultural competence ( $M=4.17$ ,  $SD=0.88$ ), social competence as also scored high ( $M=4.07$ ,  $SD=0.88$ ) succeeded by social solidarity ( $M=3.71$ ,  $SD=1.20$ ), and extraversion ( $M=3.96$ ,  $SD=1.31$ ) obtained the lowest mean. The general finding implies that the respondents manifest a high social and cultural capital. This part of the study described the social and cultural

capital orientations of the respondents. Results showed that the respondents had assessed themselves to have a high level of social and cultural capital orientations. It suggests that the respondents have adequate orientation, access, networks, and group membership. The necessity of recognizing the relationships and structures among the educational system will help in initiating effective delivery of the educational system to achieve relevance, access, and equity. The effect of social and cultural experiences of the students affect their learning outcomes (Börjesson, Broady, Le Roux, Lidegran & Palme, 2016; Cheng & Kaplowitz, 2016; Dejaeghere, Wiger & Willemsen, 2016; Harju-Luukkainen & Tarnanen, 2017; Peng, 2019).

**Table 2.***Social and Cultural Capital Orientations of the Respondents*

<b>Domains</b>	<b>Mean (n=377)</b>	<b>SD</b>	<b>Descriptive Interpretation</b>
Social Competence	4.07	0.88	High
Social Solidarity	3.71	1.20	High
Literacy	4.24	0.90	Very High
Global-cultural competence	4.17	0.88	High
Extraversion	3.61	1.31	High
<b>Grand Mean</b>	<b>3.96</b>	<b>0.46</b>	<b>High</b>

*Legend: Strongly Agree/ Very High<sup>a</sup> (4.20-5.00); Agree/ High<sup>b</sup> (3.40-4.19); Undecided/ Moderate<sup>c</sup> (2.60-3.39); Disagree/ Low<sup>d</sup> (1.80-2.59); strongly Disagree/ Very Low<sup>e</sup> (1.00-1.79)*

The very high assessment of literacy as a dimension of social and cultural capital indicates that the respondents have very favorable home literacy practices as they were exposed to different reading materials at home. They were influenced by their parents to read books on literature and general sciences. It indicates that most of the respondents are exposed to a home literacy environment. Numerous studies have confirmed the effect of home literacy practices, parental education to learners' academic achievement, oral language acquisition and learners' motivation (Chow, Chui, Lai, & Kwok, 2017; Davis et al., 2016; Ip et al., 2016; C. Liu, Georgiou & Manolitsis, 2018; T. Liu, Zhang & Jiang, 2020; Meyer, Meissel & McNaughton, 2017; Napoli & Purpura, 2018; Park, Pan & Ahn, 2020; Rowe, Ramani & Pomerantz, 2016; Saçkes, Işıtan, Avci & Justice, 2016). As the implication of this finding, encouragement of parents to their children to do intensive reading a home may help in improving students' social and cultural capital.



Consequently, the high self-assessment of the respondents on their global-cultural competence indicates that they have favorable exposure to arts and cultural appreciation. They are capable of seeing the values of arts and culture as well as their principles and history, which form part the societal development and preservation. Hence, they manifest an understanding of arts, their practical, philosophical, and social relevance. This high level of arts and aesthetic appreciation among Indonesian is a manifestation of their rich cultural heritage which until this time is being promoted and preserved (Howard, 2016; Law & Ho, 2015; T. Liu et al., 2020; Ning, 2015; C. Tan, 2015; M. Wang, 2015). The competency to value arts is to prepare students to understand the world where they live and make them critically engage in developing their skills of achieving a pillar of education which is learning to live together in harmony (de Eça, Milbrandt, Shin, & Hsieh, 2017; Joncheere, 2015; Potter, 2018).

Social competence as a dimension of social and cultural capital was favorable assessed high by the Indonesian respondents. It indicates that their parents have high involvement in their learning activities. Their parents are also involved as essential stakeholders of the schools. They also manifest high commitment to extracurricular activities, and they see themselves to have established a positive network to get along with others in the performance of their academic and extracurricular activities. Social competence has been defined as one's ability to handle positive social interaction (Orpinas, 2010). It is how an individual gets along with others to form and establish connection and relationship, which is a product of cognitive, affective, and psychomotor abilities relating to interpersonal relationships. Studies confirmed that social competence or social skill is an essential attribute of a student to establish success in schooling and education (Jr, 2019; Morrow, Hubbard, & Sharp, 2019; Tuononen, Parpala, & Lindblom-Ylänne, 2019; Tynjälä, Virtanen, Klemola, Kostianen, & Rasku-Puttonen, 2016; Virtanen & Tynjälä, 2019). Studies in the Indonesian context showed that parental support influences the social competence and social desirability of adolescents (Ma & Wang, 2019; Meng, Zhu & Cao, 2018).

In like manner, the high assessment of social solidarity implies that they have perceived themselves to have a strong sense of belongingness to their families, universities, and societies as they are capable of fulfilling their social obligations and commitment. It allows them to establish a gluing factor towards others. They emphasize open dialogue with their parents, teachers, and peers regarding their education and future jobs as an indication of strong environmental ties. Hence, students must be able to have an empathizing personality to increase solidarity among schools.

Studies showed that the role of solidarity among students allows them to establish a positive attitude towards indifference as they will create an organization of unity, support and equality (Hargreaves & O'Connor, 2018; Langenkamp, 2016; Z. Li, Gan & Jia, 2017; Ridley-Duff, 2016; Str ath, 2017).

Lastly, extraversion was also rated high, indicating that they enjoyed having around with their family members and friends. Extraversion is defined as one's ability to showcase social visibility and promote interest in social engagement (Avinun, Israel, Knodt & Hariri, 2019; Costa Jr & McCrae, 2008). Studies showed that extraversion as a personality trait is a predictor of English achievement among Indonesian university students (Cao & Meng, 2020). Likewise, it is seen as a factor of proactive behavior that plays a vital role in determining life and work opportunities (Backmann, Weiss, Schippers & Hoegl, 2019; Y. Wang, Ang, Jiang & Wu, 2019). Further, for language learning, extraversion is shown to predict oral language performance (Kelsen, 2019).

### **Research Question 2. Is there a difference between the Social and Cultural Capital Orientations when grouped according to selected variables?**

As shown in Table 3, it shows that there is a significant difference on the social and cultural capital orientation of the respondents when grouped according to their select profile variables. Hence, the hypothesis of the study is accepted. The table shows that parent's education and family income spelled significant differences the social and cultural capital orientation. The significant differences are seen on mothers' education on the following dimensions, social competence ( $p=0.00^{**}$ ), social solidarity ( $p=0.00^{**}$ ), global-cultural competence ( $0.019^{*}$ ), and extraversion ( $p=0.00^{*}$ ). Congruently, when fathers' education is taken, the significant differences are seen on social solidarity ( $p=0.00^{**}$ ), and extraversion ( $p=0.00^{**}$ ). Finally, when family income is explored, literacy ( $p=0.00^{**}$ ) and global-cultural competence ( $p=0.00^{**}$ ) showed significant differences.

**Table 3.**

*Test of Difference between the Social and Cultural Capital Orientation when grouped according to select profile variables*

	Gender p-value	Mothers Education	Fathers Education	Family Income
Social Competence	0.682 ns	0.000**	0.142 ns	0.934 ns
Social Solidarity	0.914 ns	0.000**	0.000 **	0.269 ns
Literacy	0.757 ns	0.273 ns	0.655 ns	0.000 **
Global-cultural competence	0.088 ns	0.019 *	0.476 ns	0.000 **

Extraversion	0.229 ns	0.000**	0.000**	0.191 ns
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Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.00$   
*ns= not significant*

Test of difference using Post Hoc Tukey HSD Test revealed that those students whose mothers have a high level of education tend to exhibit high social competence, social solidarity, cultural competence, and extraversion. It can be practically explained that mother's education has an influence on social and cultural capital orientations of their children, considering that professional mothers have a stronger preference and desire to educate their children, the better exposure they provide to them. Educated women tend to see their children have good learning exposure and opportunities, which is linked to higher network and involvement of their children towards education. The finding corroborates with several studies showcasing the role of maternal education and social and cultural competence, and well-being of children (Ansari & Gershoff, 2016; Crosnoe, Ansari, Purtell & Wu, 2016; Pérez-Escamilla & Moran, 2017; Strange, Bremner, Fisher, Howat & Wood, 2016). Other studies also reported that mothers have strongly influenced the completion of degree programs in higher education as they influenced their children's cognitive performance (Erola, Jalonen & Lehti, 2016; Font & Potter, 2019; Monaghan, 2017).

Meanwhile, paternal education spelled a significant difference in the students' high orientation to social solidarity and the extraversion of the students. It can be explained that fathers' education and their role in the Indonesian family is crucial in the context of social and cultural capital among children. The high adherence to social solidarity shows the position of traditional Indonesian fathers who are reliable, responsible, and disciplinarian tend to promote strong family ties and social cohesion among other people (X. Li & Lamb, 2015; Seward & Stanley-Stevens, 2014; S. Zhang, Georgiou & Shu, 2019). Likewise, in this study, educated fathers expected to see their children be more extravert. It implicates that a higher level of education provides a higher level of civic and social engagement. Studies showed that the level of education influences self-confidence and social engagement (Campbell, 2006; Erdoğan, 2019; Filippin & Paccagnella, 2012).

When family income is taken into consideration, significant differences are seen on the level of literacy and global-cultural competence of the respondents. It can be inferred that those students who belong in the higher income brackets tend to have a high level of self-assessment on their exposure to literacy and cultural orientations. This study shows that family income is a factor that

defines students' learning access to reading materials and exposure to art appreciation activities. Hence, family income determines children's academic achievement, cultural learning exposure, and children's well-being (Chaudry & Wimer, 2016; Durber et al., 2017; Moote, Archer, DeWitt & MacLeod, 2019; Vuong, La, Ho, & Hoang Phuong, 2019). Further, studies in the Indonesian context also affirmed the role of home-learning environment, family income, and learning opportunities (Ciping, Silinskas, Wei & Georgiou, 2015; C. Liu & Georgiou, 2017).

### Research Question 3. What is the Students' Level of Cognitive Ability?

Generally, in Table 4, the result of the OLSAT, showed that the respondents have an average level of cognitive ability ( $M=103.13$ ,  $SD=10.16$ ). As the table reveals, the majority (56.50%) are on the average level of 96-103.99, followed by those students with above-average scores of 112-119.99 (35.81%). The least contributors are those who have superior (0.27%) and above-average scores (0.27%). The data also presents that no students have below average and low cognitive ability. The finding generally indicates that the respondents of the study have an average or fair cognitive learning level, which finds it logical being already at the collegiate level.

**Table 4.**  
*Students' Level of Academic Achievement*

Domains	Descriptive Interpretation	Frequency (N=37)	Percentage
128 and Above	Superior	1	0.27
120-127.99	Above Average	1	0.27
112-119.99	Above Average	135	35.81
104-111.99	Average	19	5.04
96-103.99	Average	213	56.50
88-95.99	Average	8	2.12
80-87.99	Below average	0	0.00
72- 79.99	Below Average	0	0.00
71 and below	Low	0	0.00

**Level of Cognitive Ability = 103.14 (SD= 10.16) – Average**

*Note: Otis-Lennon School Ability Scale*

In this part of the study, finding reveals that sampled students' level of cognitive ability is on the average. It implies that the students manifest a reasonable level of cognitive capacity towards abstract thinking and reasoning abilities. As an implication, on the average level of cognitive ability displayed by the Indonesian respondents, the university may strengthen their curricular programs by enhancing more the learning opportunities being offered to the students, which will promote students' performance on diverse learning tasks. Cognitive ability is the general mental

structure involving critical thing, reasoning, abstract thinking, comprehension, and application of learning (K. Bergman, Sarkar, Glover, & O'Connor, 2010). Studies confirmed that students' cognitive ability is a predictor of academic success (Grass, Strobel & Strobel, 2017; Rammstedt, Danner & Martin, 2016). Studies in the Indonesian context of students' cognitive ability showed that urban students have better cognitive ability compared to rural students (Y. Wang et al., 2019; Zhao, Ye, Li & Xue, 2017).

#### **Research Question 4. Is there a difference between the Respondents' Cognitive Level when grouped according to selected variables?**

The test of the difference between the respondents' cognitive ability when grouped according to their profile variables, is presented in Table 5. Results showed that the hypothesis of the study is accepted. The single variable which spelled significant difference is when grouped according to fathers' education ( $p=0.026^{**}$ ). At the same time, gender, family income, and mother education showed no significant difference in terms of the students' cognitive level.

**Table 5.**

*Test of Difference between the Respondents Cognitive Ability when grouped according to select profile variables*

	Gender p-value	Mothers Education	Fathers Education	Family Income
Cognitive Level	0.475 ns	0.026 *	0.445 ns	0.083 ns

*Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.00$*

*ns= not significant*

The study revealed that mothers' education is generally associated with cognitive ability in the case of the Indonesian respondents. It implies that maternal education is positively linked to the student's cognitive ability. It can be explained that the role of Indonesian mothers in the education of their children is significant. It is implying that educated mothers tend to see their children have good learning exposure and opportunities, which is linked to higher network and involvement of their children towards education. This finding confirms decade studies regarding the influence of mothers to their children's cognitive development (Baker & Milligan, 2015; O. Bergman, Ellingsen, Johannesson & Svensson, 2010; Borra, Iacovou & Sevilla, 2012; Carneiro, Meghir & Parey, 2013; Duncan & Magnuson, 2012; Figlio, Guryan, Karbownik & Roth, 2014; Hess & Shipman, 2017; Obradović, Yousafzai, Finch & Rasheed, 2016; Quittner et al., 2013). Likewise, in the Indonesian

context, this finding corroborates with the previous studies that level of mothers education and health practices significantly impact Indonesian learners' cognitive ability and language development (Chiu & Lau, 2018; S. Li, Tao, Joshi & Xu, 2018; Lin et al., 2017; Long & Pang, 2016; J. Wu & Zhang, 2017; H. Zhang & Whitebread, 2017).

**Research Question 5. Is there a significant relationship between Social and Cultural Capital Orientation and the respondents' cognitive ability?**

Table 6 shows the correlation between students' cognitive ability and their social and cultural capital orientation. It was revealed that there is a significant correlation between students' cognitive ability and their social and cultural capital orientation on the domains of literacy (0.000\*) and global-cultural competence (p=0.002\*). The positive relationship suggests that literacy and global-cultural competence as domains of SCC is positively correlated to the students' cognitive ability. Hence, the hypothesis of the study is accepted. The finding generally shows that when students have a high level of literacy and cultural competence, the higher cognitive ability. No significant relationship found on social competence, social solidarity, and extraversion.

**Table 6.**

*Test of relationship between Social and Cultural Capital Orientation and the respondents' cognitive ability*

	Social Competence	Social Solidarity	Literacy	Global-cultural competence	Extraversion
Cognitive Ability	r= .0066 p= 0.899 ns	r=0.044 p=.241 ns	r=0.250 p= 0.000**	r=0.105 p= 0.002*	r=0.049 p=0.339 ns

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.00$   
ns= not significant

Literacy and global-cultural competence are positively associated with Indonesian students' cognitive ability. The positive relationship among the variables implies that high level of home literacy practices and global-cultural competence relate to the level of students cognitive ability. It further suggests that both literacy and cultural competence, when enhanced, it will improve students' cognitive ability. A similar finding has been found affirming that students' academic achievement is correlated to literacy and global-cultural competence (Pishghadam & Zabihi, 2011). Likewise, studies also concluded the positive association between social and cultural capital to students learning outcomes (Ahmadi, Ansarifar & Ansarifar, 2015; Andersen & Jæger, 2015; Ghaffari & Khani, 2013; Gracia, 2015; Hernández, Cascallar & Kyndt, 2019; Mikus, Tieben, &

Schober, 2019; Møllegaard & Jæger, 2015; O’Connell, 2019; Rogošić & Baranović, 2016; C. Y. Tan, Peng & Lyu, 2019). Studies in the Indonesian context also espoused that home literacy practices promote cognitive language development (Chow et al., 2017; G. Li & Ma, 2016; J. Wang, Li & Wang, 2018; Yeung & King, 2016; S. Zhang et al., 2019). Moreover, studies also showed that arts and cultural involvement of students benefit their academic achievement (Alfita, Kadiyono, Nguyen, Firdaus & Wekke, 2019; Pinto & He, 2019; C. Tan & Tan, 2016; C. Y. Tan et al., 2019).

### **Research Question 5. What predicts the Social and Cultural Capital orientation and Cognitive Ability of the Respondents?**

Table 7 shows that family income predicts the Social and cultural orientation of the respondents. With the predictor variables selected, family income is the single predictor of social and cultural capital obtained the p-value of 0.000, which is lower than the alpha level of 0.01. The finding generally shows that family income significantly predicted the Social and Cultural capital orientations of the respondents.

**Table 7.**

*Regression Analysis of the Social and Cultural Capital, Cognitive Learning Ability, and select Family Background*

<b>Variables</b>	<b><math>\hat{\alpha}</math>*</b>	<b>Un Std. Error of <math>\hat{\alpha}</math></b>	<b><math>\hat{\alpha}</math></b>	<b>Std. Err. <math>\hat{\alpha}</math></b>	<b>t (371)</b>	<b>p value</b>
Mothers Education	0.055	0.051	0.029	0.027	1.086	0.278 ns
Fathers Education	-0.015	0.050	-0.009	0.032	-0.302	0.762 ns
<b>Family Income</b>	<b>0.229</b>	<b>0.051</b>	<b>0.112</b>	<b>0.025</b>	<b>4.467</b>	<b>0.000**</b>

*Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.00$*

*ns= not significant*

The result of the regression analysis found out that family income is a predictor of high social and cultural capital orientations among the students. It implies that those students in the Indonesian context who are on the higher income bracket tend to exhibit high social and cultural capital. This finding supports earlier studies that family income and social class predict more top access to learning opportunities, experiences, and educational resources (Bodovski, 2010; Fan, 2014; Fismen, Samdal & Torsheim, 2012). Moreover, the finding further implies that in the Indonesian educational setting, families may find advantage in providing quality education to their children

by offering them the highlight that family income promotes learning achievement and social and cultural capital advantage of their children which will ultimately help them achieve success in their future careers. As an implication of this finding, the provision for equal and equitable access to quality education is one of the top priorities of the Indonesian government at present. The human capital flourishing can be attained through quality education, which is an essential component of social justice. Hence, government initiative through proper allocation of educational resources is sought to narrow down the educational gap between the learning opportunities of the rich and the poor. The increase of educational funding is necessary for the government to fulfill so that higher education institutions can adequately provide the best learning resources for the students who come from underprivileged families.

### **Conclusion**

The current study examined the interplay of Social and Cultural Capital orientation, cognitive learning ability, and family background. The results of the study showed that the respondents manifest a high level of social and cultural capital orientation, with literacy having the highest factor. Likewise, the respondents have an average cognitive level of ability. Test of difference showed that respondents whose parents having high educational achievement exhibit high social competence, social solidarity, cultural competence, and extraversion, social solidity, and extraversion. Similarly, fathers' education is the single variable which spelled difference on the student's cognitive ability implying students whose fathers have high academic qualification exhibit high cognitive ability. Test of relationship showed that literacy practices and global-cultural competence are correlated to students' cognitive ability. Finally, family income is a predictor of students' high level of social and cultural capital orientation and cognitive ability. These findings of the present study will present theoretical and practical implications.

### **Theoretical and Practical Implications**

The findings of the present study provide significant theoretical and practical implications. The quest to improve students' learning outcomes is one of the essential tasks of institutions around the world. This study showcased that economic capital is a predictor of social and cultural capital for Indonesian college students' cognitive ability. As to theoretical implication, this study strengthens the Bourdieu's Theory of Capital (Bourdieu, 1977) highlighting the direct relationship



between economic opportunities to learning opportunities. Influence of family background to college education is still pervasive, where secure family financial status contributes to improving learning performance and interest (W. Li, 2007; Matherly, Amin, & Al Nahyan, 2017; M. Zhang & Li, 2019; H. Zhang & Whitebread, 2017). The central thesis of Bourdieu is that an individual's educational success is closely related to social class background and class bias, which are present in school.

The present finding of the study bears significant implications to close the gap and indifference of student cognitive ability to promote educational relevance, access, and equity in modern Indonesian society, considering that college education is the gateway for better opportunities. Therefore, the following practical implications are offered. First, the support of learning institutions to students who come from low-income families may be strengthened by intensifying the effort of providing scholarships grants. Second, the support of parents towards the education of their children is still encouraged through financial and non-financial aspects. Third, awareness of parents on parenting behavior, as well as educational support, is always encouraged. Fourth, Exploration of the other factors relating to better learning access of students to education is still sought. Fifth, provided that literacy as the dimension of social and cultural capital, which is associated with cognitive ability, universities are encouraged to provide more reading and learning materials to students in such a way this will improve their cognitive ability. Likewise, mobile learning is also encouraged to promote better access and relevance of education in the industrial revolution 4.0. Sixth, finally, global-cultural competencies also related to the cognitive ability of the students; universities should initiate socio-cultural activities that will support the cultural appreciation of students.

### **Limitations and Future Research Direction**

This study is subject to limitations which will provide future research directions. First, to further ascertain and close the gap of this study, a national survey may be initiated with larger samples, which will offer a more in-depth analysis and understanding of the influence of family income and parents' education to capture its effect on the cognitive ability of the students. Questions and gaps are presented in this study, which can help future researchers chart their research problems. Second, the use of a mixed-method research design is encouraged since this study is only limited to the descriptive correlational survey. Thirdly, a longitudinal study must be initiated, focusing on

the direct effect of social and cultural capital on learners' cognitive, affective, and psychomotor development. Finally, a follow-up study should be conducted aligned with the attainment of Indonesia's education modernization.

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