

# The Effect of Parental Status and Domestic Possessions on Reading Literacy of Indonesian Student

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**Abstract**—The purpose of this paper was to study the effects of parental status and selected home possessions on student reading ability in Indonesian junior secondary schools. Data of the Program for International Student Assessment held in 2015 were used. There were data from 6513 Indonesian students. The causal factors were tested by stepwise regression analysis. Findings revealed that after controlling for language as used at home, home possessions and parental status were still significant. Limitations due to the characteristics of this quantitative approach, the sample could not represent the multicultural characteristics of the country that might be difficult to explain in a more detailed why and how such findings happened.

**Keywords**—reading attainment; basic education; family possessions; parental education; parental occupational status

## I. INTRODUCTION

Literacy is a critical substance and expectation in education. The more people literate the more will they learn, be healthier and participate more productively in civic life, governance will improve, economies will grow, nations will be better off [1-3]. Clearly, literacy skills matter. However, measuring their effect and revealing factors in groups are also matter.

The literacy itself has a complex meaning. Program for International Student Assessment (PISA) elaborated it into science, mathematics, financial, and reading literacy [4]. This article would focus on reading literacy. Literacy processes have proliferated in the educational sector worldwide. Their implementation has become a distinctive and sometimes explicit feature of attempts to improve education services [5]. However, there has been little analysis of how they are functioning or whether they are both attractive and effective. In addition, the variety of approaches, criteria and focus suggests the need for clarification of their diverse purposes and effectiveness [6-8]. In case of basic education, although there are an increasing number of schools adopting literacy programs, they have applied these processes less frequently than other services [9-11].

The contribution of Piaget's, Dewey's, Vygotsky's and Freire's theories explained how important the school-home

partnerships and family literacy. Piaget and also Vygotsky asserted that learning occurred through social interactions (including language) and human relations [12-15]. Dewey advocated child-centered approach to learning and seeing children as part of the social whole. He argued that education was not assigned to school alone but was all relationships and interactions where we learnt how to live as individuals in relationships with others [16]. Dewey's approach reaffirmed that children's literacy learning could not be separated from the home environment. Vygotsky emphasized the role of others who are more capable of scaffolding children's learning [12, 15].

Studies in educational attainment more than five decades ago discovered that the biggest determinants come from home and child characteristics [17-21]. This triggered the economic concept of educational production function (EPF) which put children and home background as parts of critical factors for learning achievement [22]. Even the EPF model had been criticized and repaired, none could deny the main findings.. In Indonesian education there is still lack of evidence to provide effect size of such kind determinants that would be useful for development policies. This study attempt to discover the problem as mentioned.

The aim of this article is to examine the effects of parental status and selected home possessions on student reading literacy after taking into account the language use at the home. The implication would be of benefits as baseline for further studies on reading ability in the context of educational effectiveness and policy development.

## II. METHODS

In this study, the data were picked up from the of the Program for International Student Assessment held in 2015 (PISA 2015). Data on Indonesia were picked up for this study. The data set contained information about 6513 children of 15-year-old, coming from 236 junior secondary schools. As explained, the test instruments were translated into Indonesian language before being administered.

This sample had comparable home language, Indonesian (35.1%), local language (59.4%) and other language (1.9%).

On average, fathers and mother had 9.95 (SD 1.78) and 9.05 (SD 1.75) years of education, respectively, both were equivalent to some high school education. Children come from families considered as the lower income were 53.4%, the middle 33.2%, and the upper (11.8%).

TABLE I. THE VARIABLE DESCRIPTION

Variable	Minim um	Maxim um	Mean	Std. Deviation
Reading literacy	182.11	643.5	403.84	67.62
Parental education (in years)	3	15	9.95	3.38
Parental occupational status	11	89	33.7	20.26
Cultural possessions at home	-1.71	2.17	-0.535	0.728
Home educational resources	-4.37	1.17	-1.373	1.037
Home educational possessions	-8.94	3.67	-2.348	1.243
Home other possessions	-3.38	3.49	-1.922	1.064
ICT Resources	-5.58	1.87	-1.791	1.114
Index of economic, social and cultural status				

The plausible values of reading literacy, as shown in Table 1, averaged 403.8 with a wide range spread. On cultural possessions, ICT resources, educational resources, and non-educational resources at home tended to be negative average that meant that most children had limited possessions with considerable variations.

TABLE II. STRATEGY FOR REGRESSION ANALYSIS

Variable	Mode 11	Mode 12	Mode 13	Mode 14	Mode 15
CONS (intercept)	√	√	√	√	√
Home Language	√		√		√
Parental Education		√	√		√
Parental occupation		√	√		√
Cultural Possessions at Home				√	√
Home Educational Resources				√	√
Home Possessions				√	√
ICT Resources					√

Student's performance in reading was assessed as response variable. The strategy of analysis consisted of five possible consecutive models which are illustrated in Table 2. Model 1, was a simple regression, simply tested the language daily used at home. Model 2 included only the variables related to socio-economic status (SES), i.e. parental education and occupation. Model 3 entered the home language and parental SES. Model 4 examined only the home-possession variables. Lastly, Model 5 entered all meaningful variables in order to estimate the whole effect size. Model 1, 2, and 4 focused on certain selected variable(s). Whereas Model 3 and 5 combined the previous model(s) to be discussed later. All five models were presented if at least one statistically significant variable was identified in the procedure.

III. RESULTS

Table 3 summarized the progression of five models to explain the effect of selected factors in reading literacy. Model 1, as the starting model showed that students with national language at home performed higher in reading literacy that those with local (9.52) and other foreign languages (40.41). This model explained 1% for the whole attainment.

TABLE III. THE RESULT SUMMARY

Variable	Mode 11	Mode 12	Model 3	Mode 14	Mode 15
Home Language					
-Indonesian/CONS	411.35	340.7	337.57	458.17	414.52
-Local language	-9.52		4.71*		10.43*
-Another language	-40.41		-17.89*		-10.13
Parental Education		4.31*	4.37*		2.29*
Parental occupational		0.65*	0.67*		0.23*
Cultural home possessions				-6.10*	-5.74*
Home educational possessions				11.58*	10.50*
Home other possessions				5.08*	3.12
ICT resources				15.02*	13.56*
R <sup>2</sup>	0.010	0.13	0.133	0.203	0.231
F ratio	30.705	455.24	225.75	408.16	217.82

Note: \* p<0.05, significant  
 Reading Literacy as dependent variable  
 Home Language (0=Indonesian, dum1=local language, dum2=other language).

Model 2, in terms of SES, showed that parental education had positively and occupation negatively affected the reading literacy. In this model, home language had not been included yet. The family SES contributed 13% for the children literacy.

Model 3 combined the previous models, explained that national and local languages had higher literacy achievement than those with foreign language background. Again parental occupation supported negatively to the children achievement. The explained variance of this third model did not different to the previous Model 2, steady 13.3%.

In terms of family possessions, this analysis focused on cultural, ICT resources, home educational and other possessions. Model 4 entered separately such kind of possessions for facilitating the comparisons and interpretations. It was clear that only cultural home possessions negatively affected the children reading performance, while the rests positively. Even the group of home possession exhibited a very high determinant, 20%. This would be discussed later.

Lastly Model 5, combining all the significant factor, found that foreign language, parental occupation, home non-educational possession were not significant factors for Indonesian reading literacy. The whole model had 23.1% contribution for the response variable. By enlarge, we might say that the Indonesian and local language have potential effects on reading literacy; and taking into account the previous results, parental SES and home possessions contribute the reading literacy of students at Junior Secondary Schools.

IV. DISCUSSION

The findings presented in the previous sections offered a number of noteworthy observations. Firstly, using local and national language at home did affect the reading literacy in general. This proved that schools and homes were not separate in terms of learning. Using similar language at home and school automatically support the compound of both places although without the teacher consent. Freire [23-25] stated that it was not the teacher's duty to 'fill' students with their narrative content. Freire warned that the experience that learners brought with them into learning situations was valuable and should not be ignored by educators (Morrell

2008). The teacher has the responsibility to 'read' the world of children and creates an appropriate learning environment by building a "knowledge capital" that is already in the family.

Secondly, the socio-economic influence of family status was even greater than the use of language at home. This meant that the status of parents' lives could not be underestimated for educational purposes. This finding could be illuminated by the ideas of the Bronfenbrenner ecological theory which suggested that schools and homes could not be separated, and mutually influenced each other [8, 12]. He viewed the family as the most effective and economic system for fostering and sustaining child development [8, 26]. Bronfenbrenner argued that, even though the family was the main context in which human development took place, it was only one of several settings in which the process of development could and did occur. The Bronfenbrenner system model was very helpful in developing a framework for interaction between family and school.

Thirdly, the variable group that had big influence was the choice of learning facilities at home, by 20%. This was supported by social capital theory which reaffirmed the need to assess the "knowledge capital" that already existed in the family [27]. The more information the teachers got about the children's home environment, the better the equipment was to accommodate the needs of parents and children. Teachers needed to see parental involvement as a form of social capital [28] rather than threats or interference.

Lastly, putting together the three previous groups of factors, the effect on reading literacy increased to 26%. This finding suggested that in reality the three groups of variables should not be considered separately. The overlapping sphere model from [29] should be ignored to explain this phenomenon. Epstein proposed that, although the practices of family and school education were carried out independently, it reflected the shared responsibility of parents and educators for children's learning. Epstein believed that when teachers and parents emphasized their shared responsibilities, they supported the generalization of the skills needed to produce successful learners. Because schools, family and community partnerships did not automatically produce successful students, partnership activities must be deliberately designed to engage, guide and motivate participants to produce their own success.

It was a limitation of this study that the data was not able to describe the multicultural characteristics that reflected the national situation. None would deny the cultural bound values that play important roles for deeper understanding in studies like this. It was not enough, although possessions at home had been a main variable, to explain why and how these happened. This country had a large variety of cultural background that could influence the learning process and achievement. Apart from this limitation, it is recommended at different levels, such as multilevel modeling and testing the interaction effects.

## V. CONCLUSION

Improving educational quality is not simply put the efforts and attention to schools. Home factors could not be neglected besides other educational factors inside the schools for

emerging the proper educational policies in reading literacy. Such factors would be of use to be taken into account as baseline for educational effectiveness studies currently and in the future.

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