

# Indonesian adolescents' EFL reading comprehension: Gender differences and the influence of parental background

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## ABSTRACT

This article presents findings on gender differences and the influence of family background on students' EFL reading comprehension in Indonesia. A total of 265 students (48.3% female, average age 13.6 years) from grades 7 to 8 in four schools anonymously completed an EFL reading comprehension test. In contrast to prior findings showing girls' advantage of first language literacy, this study found no gender differences in EFL reading comprehension. In line with prior studies on the effect of socioeconomic status on student achievements, parents' level of education influenced students' EFL reading comprehension. For boys, the effect of mother's education occurred through the provision of literacy resources. For girls, by contrast, the effect occurred through mother's involvement in their daughters' reading activities, which in turn encouraged reading engagement and comprehension. These findings underscore the importance of gender-appropriate strategies to facilitate adolescents' EFL reading engagement and comprehension.

**Keywords:** English; gender; home environment; literacy; socioeconomic status (SES)

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## INTRODUCTION

The willingness and ability to understand and infer meaning from texts are arguably among the most important skills that students need to acquire from formal education (Olson, 1994). For individuals, the ability to read opens many learning opportunities and thus propels personal and intellectual development (Mullis, Martin, Kennedy, Trong, & Sainsbury, 2009). Skilled readers are more efficient and accurate in extracting meaning from texts, meaning that they have more opportunity to gain and accumulate knowledge (Norris & Phillips, 2003). At a societal level, having a literate population is key to any nation's well-being, productivity, and prosperity (Robinson, 1998). This is true for reading in one's first language (L1), and because so much of information is available only in English, it is also increasingly true for reading in English as a foreign language (EFL).

This article presents findings gleaned from a study of Indonesian adolescents' (7<sup>th</sup> and 8<sup>th</sup> grade secondary school students, aged between 13 and 14 years) reading in EFL. The study focuses on the role of family background, especially parents' education level, involvement in reading, and provision of reading resources in boys' and girls' EFL reading engagement and comprehension in EFL. Teachers and school management generally acknowledge that students' home environment can be a contributing factor in their academic achievement, including in English. Despite this, there is scarce research on the extent and the mechanisms by which factors related to a students' home environment influence their achievement in EFL. This means that teachers and schools are left unguided in their quest to find ways of capitalizing on the influence of a home environment on students' achievement.

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This article presents evidence concerning gender differences in how parental education, involvement, and provision of resources influence students' EFL reading engagement and comprehension. While there is a paucity of empirical research in this area, gender differences in L1 literacy is a well-established finding. This gives rise to the possibility that such differences may also exist with regards to second and foreign language learning. The next section below summarizes previous research on gender differences in L1/L2/additional language literacy.

### **Gender differences in reading literacy**

Studies have generally shown that girls enjoy an advantage over boys in literacy. This gender gap, however, seems to become significant only after the upper grades of primary school (aged 10 onwards). Below et. al. (2010), for instance, examined oral reading fluency in a sample of kindergarten to 5<sup>th</sup> grade students and found that the slight girls' advantage did not become statistically significant until the 5<sup>th</sup> grade. Similarly, Kolic-Vehovec and Bajanski (2006) found that 5<sup>th</sup> to 8<sup>th</sup> grade girls outperformed boys in reading comprehension as well as comprehension monitoring strategies, with reading strategies became more important predictors of comprehension in later grades. Rosen's (2001) findings also indicate persistent female advantage among 14 year olds from 10 countries in the ability to read documents which include information in the form of maps, diagrams, graphs, and tables, but not among 9 year olds. Furthermore, analysis of data from various large-scale standardized achievement tests show that among Dutch upper primary and secondary school students, girls consistently score higher than boys in reading-related tests, with small to medium effect sizes (ranging from 0.18 to 0.28) (Driessen & Langen, 2013). Interestingly, this gender gap seems to result from differences in extreme scores at the lower ends (Baye & Monseur, 2016; Nowell & Hedges, 1998). That is, the weak readers among boys tend to have much lower scores than weak readers among girls.

The gender gap favoring females in (first language) reading achievement can be partially attributed to sex differences in underlying verbal intelligence. This is a contentious issue, with some authors insisting that sex differences in underlying intelligence are real and reflect innate biological differences between males and females (Kimura, 2000; Reilly, 2012,). In contrast, others argue that such gaps are either too small to be practically significant or nonexistent, for it simply reflects cultural values/biases about the sexes (Zell, Strickhouser, Lane, & Teeter, 2016). A more balanced and complete account portrays sex differences in verbal intelligence, along with other aspects of cognitive ability, as a product of complex interaction between genetic, developmental, and socio-cultural factors (Halpern, 2012). In this view, regardless of a biological basis, sex differences in intelligence and achievement are strongly reproduced by society through various socialization practices (e.g. providing more

encouragement to girls to read, because it is an activity more associated with feminine values) as well as institutional constraints.

It is reasonable to predict that girls' superiority may also be present in second language (L2) literacy achievements. If the gender gap in L1 reading is partially due to underlying differences in verbal intelligence, this advantage should bear some influence on second language learning (including EFL). Furthermore, proficiency in L1 reading typically goes hand in hand with interest and intrinsic motivation to read, whatever the language is. Hence, if girls enjoy reading more, they should on average also read more English materials and hence are exposed to a wide range of vocabulary and text structures. Unfortunately, only a few studies have empirically examined gender differences in reading in a foreign language, with mixed results. A relatively small study of Spanish students found that at the end of compulsory education, girls were better at comprehending EFL texts compared to boys (Arellano, 2013). However, a larger survey among adults learning Dutch as a second language found that females outperform males only on speaking and writing, and not on reading and listening (Slik, Hout, & Schepens, 2015). Furthermore, various standardized achievement tests data from the Dutch context indicate that 8<sup>th</sup> grade boys outperformed girls in English language tests, but this difference largely disappears for students at the end of their secondary schooling (Driessen & Langen, 2013).

This mixed picture reflects the fact that literacy in a second or foreign language is more strongly influenced by other factors not typically examined in studies of L1 literacy. For example, while proficiency in L1 literacy may be associated with interest and intrinsic motivation related to language (and hence favor girls), proficiency in a second/foreign language maybe more instrumentally-based (practically oriented, and hence may sometimes favor boys). In any case, the existence of a gender gap in L2 literacy (including EFL) is best treated as an empirical question to which the current study seeks to contribute.

### **Role of family background in reading literacy**

Family background aspects such as parental education, occupation, home possessions, and income are generally considered to be part of students' socioeconomic status (SES). Studies have consistently shown that students from higher SES families perform better than their peers from lower SES families across language, math, and science subjects (Sirin, 2005; White, 2016). The effect of SES on achievement depends on the particular index used and the unit of analysis. At the group level, SES exerts influence on achievement, but at the individual level, the effect tends to be small to moderate. In the case of L1 literacy skills, the effect of SES is likely to begin from a young age. This is confirmed by a longitudinal study on a large cohort of children in Stockholm, which found that children from higher SES families had better phonological awareness (a critical

factor underlying the ability to read) at the start of kindergarten. In turn, this head start enabled the high SES children to gain more from instruction compared to children from lower SES families (Lundberg, Larsman, & Strid, 2012).

SES can influence students' academic achievements and literacy more specifically, through a number of mechanisms. One obvious mechanism is via the provision of more and/or better quality material resources to support child's learning. This includes general resources such as dedicated desks or study space, as well as more specific resources such as software/programs, English language books, and dictionaries to support EFL learning. Exposure to reading materials at home could enhance students' interest in books as well as their vocabulary knowledge, which serve as a catalyst for the acquisition of more complex literacy skills. International survey studies have found that the number of books at home is among the predictors of 15 year old students' reading comprehension (Artelt, Planck, & Schneider, 2001; OECD, 2009; Park, 2008). Much research has examined the influence of resources at home on L2 learning. Nonetheless, existing studies seem to replicate findings from studies of L1 literacy. For instance, a small scale survey study found the number of books at home differentiated between proficient and less proficient English readers among 4<sup>th</sup> grade Spanish-speaking students in the US (Pucci & Ulanoff, 1998, in Howard et al., 2014).

The effect of SES can also occur through parents' involvement in their children's academic learning, including in literacy. A meta-analysis of intervention studies showed that training parents to help their child acquire specific literacy skills had large positive effects on the reading ability of kindergarten to 3<sup>rd</sup> grade students (Sénéchal & Young, 2008). Even simply the simple practice of reading books to young children on a daily basis could significantly enhance the students' reading literacy at the end of compulsory formal schooling, as the 2009 PISA study has found (OECD, 2009, p. 95).

A study, which examined in more detail the forms of parental involvement, found that mothers in high SES families more frequently paraphrased texts when reading, discussed the written system, and connected texts and other experiences (Korat, Klein, & Segal-drori, 2007). These practices, in turn, predicted 5-6 year olds' emergent literacy, but only among high SES families. These findings indicate that students from high SES families are advantaged because more educated parents tend to be more confident and more skillful in facilitating the development of their children's literacy. More frequent and higher quality parental involvement in children's literacy may foster various aspects of reading motivation (e.g. sense of efficacy, interest, and enjoyment) and form productive reading habits (Klauda, 2009).

Theoretically, the effect of SES on students' L1 literacy should also apply to EFL learning. Parents with

higher education tend to be more proficient in reading English-language texts, and thus are more confident and willing to engage their children in EFL literacy activities. The few studies which have examined this indicate that parental involvement may influence children's EFL literacy only during the early years of schooling. For example, a study by Reese, Gamier, Gallimore, & Goldenberg (2000) found that parents' literacy involvement (reading aloud for the children) and their own reading behavior were found to mediate the effect of family SES on oral and reading skills in English among 7<sup>th</sup> grade Spanish-speaking students. However, a study of 4<sup>th</sup> grade Spanish-speaking students already mentioned above found that parental involvement in the form of being read to or literacy modeling (parents reading at home) did not differentiate between proficient and non-proficient English readers (Pucci & Ulanoff, 1998, in Howard et al., 2014). A more recent study, also on Spanish-speaking students in the US, found that the frequency of reading in English at home predicted comprehension of English texts for 3<sup>rd</sup> grade, but not for kindergarten or 1<sup>st</sup> grade, students (Howard et al., 2014).

### **The present study**

In addition to exploring gender differences in secondary school students' EFL reading engagement and comprehension in Indonesia, the current study sought to examine the mechanisms by which parental education influences those outcomes. Building upon prior research, we incorporate parental reading involvement and provision of reading resources as factors, which mediate the effect of parental education on secondary school students' EFL reading comprehension. In general, higher parental education was hypothesized to predict more frequent EFL reading for non-school tasks (higher engagement) as well as better EFL reading comprehension among secondary school students. This effect was hypothesized to occur, at least partially, through the provision of better/more reading resources at home, and through parental involvement in students' EFL reading (Senechal, 2006).

In addition, we also examined possible gender differences in how parental education influences students' EFL reading comprehension. Prior studies have identified a gender gap in first- and, to a lesser extent, L2 literacy, with girls outperforming boys especially starting from later grades of primary schooling (Arellano, 2013; Below et al., 2010; Driessen & Langen, 2013; Slik et al., 2015). Little research, however, has been conducted to examine the mechanisms by which family background influences male and female students' literacy in L2. Our conjecture about gender differences was based on differential relationships among adolescent boys and girls with their parents. A study of Mexican adolescents indicated that parental involvement had a differential impact depending on the parents' and child's gender (Dumka, Gonzales, Bonds, & Millsap, 2011). For example, the study found that mothers' emotional relationship

predicted both boys' and girls' academic achievement. However, fathers' warmth was associated with boys', but not girls', lower problem behavior.

Such patterns of relationship may be apparent in societies with high power distance and masculinity such as Indonesia (Mangundjaya, 2013), there may be more expectation or cultural pressure for girls compared to boys to conform and maintain closer relations with parents. Furthermore, adolescent girls may be more open to parental involvement in their academic activities (Shek, 2007), especially from their mothers (Crouter, Manke, & McHale, 1995).

Based on these conjectures, we test a model of the relationships between parental education, parental

involvement, home resources, and reading engagement and comprehension (see Figure 1). We hypothesize that for adolescent boys, parental involvement maybe less important than for girls in developing their EFL reading engagement and comprehension. For boys, provision of reading resources (which could be accessed more independently) could be more important. In contrast, adolescent girls may benefit more from parental involvement. That is, girls who read together or share their reading experiences with their parents, should be more engaged in reading and in turn develop better reading comprehension skills. We did not make any specific predictions about the differential role of fathers and mothers on students' reading.

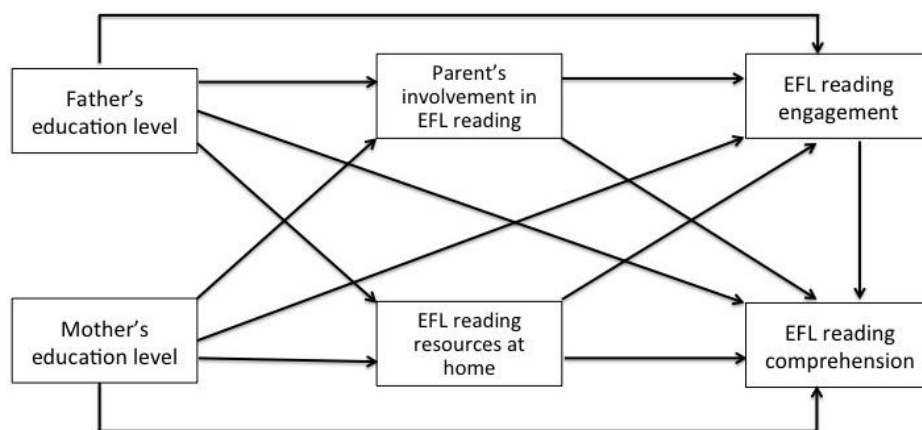


Figure 1. Path model of the influence of parents' education on students' reading

## METHOD

### Design and participants

A survey was conducted with 7<sup>th</sup> and 8<sup>th</sup> grade students from 4 secondary schools. The schools were selected partly for accessibility to the researchers, and also to represent some of the diversity of school types: two were public schools with different academic reputations, while the other two were private schools also with different academic reputations (these were also reflected in the reading comprehension scores between the schools). Participants were recruited after their regular English lessons by the second author; participation was voluntary and anonymous to suppress social desirability bias, which could occur especially in relation to reporting frequency of reading. This resulted in 265 completed questionnaires. The participants' demographic profile is presented in Table 1. Most if not all of the participants had been exposed to 4-hours per week (in the 2006 National Curriculum) of English language teaching since the 1<sup>st</sup> grade of schooling.

The participants came from families with families with diverse SES status. Participants' parents' education ranged from primary school to masters and doctorates. Most of the participants' fathers (56.4%) and mothers (64%), however, were high school graduates. The participants' families were also diverse in terms of their home possessions. Most, however, came from lower or middle class families (e.g. 61.8% did not own a car, 66.9% did not own a computer).

### Instruments

The variables in this study measured include reading comprehension, reading resources, parental involvement, and parents' education level. Each of the variables was measured using different tests/tools as presented below.

- *Reading comprehension* was assessed using a test constructed by the second author. The test was composed of 3 readings, each with 5 associated multiple-choice questions. Six questions measured the ability to retrieve explicitly stated information, while 9 questions measured the ability to draw inferences and interpretations from the text (based on PISA's reading comprehension framework). Internal consistency for the 15 items was adequate (Cronbach's alpha = 0.76).
- *Reading engagement* refers to behavioral engagement with English language texts outside of formal schooling. This was assessed using 4 items asking students to report the frequency of their daily EFL reading activities (read fiction, read non-fiction, read about current events/news, and write/compose in English) on a five-point scale ("never", "less than 30 minutes", "between 30 to 45 minutes", "between 45 minutes and 1 hour", and "more than 1 hour"). Internal consistency was the four

items was also adequate (Cronbach's alpha = 0.77).

- *Reading resources* at home were estimated through 4 items, which asked students to report whether or not their parents provided EFL school-related books, EFL fiction and non-fiction not related to school, English dictionaries, and software or multimedia programs which they could use to learn English. Internal consistency was low mainly due to the item on software/multimedia resource (Cronbach's alpha = 0.46).
- *Parental involvement* was assessed through 4 items asking students to report on whether

either of their parents: read English materials with and/or to them, talked with them in English, encouraged them to read English materials, and themselves read materials in English. Internal consistency was adequate (Cronbach's alpha = 0.63).

- *Parents' education level* was assessed through students' report of each parents' highest school certificate, ranging from no schooling or primary school, secondary school (SMP and SMA), post-secondary education (diploma and undergraduate), and postgraduate (masters and doctorates).

Table 1. Demographic profile of the participants

| Variable    |                       | n              | %      |
|-------------|-----------------------|----------------|--------|
| Age         | Average               | 13.58 years    |        |
|             | Range                 | 12 to 16 years |        |
| School      | Public school A       | 69             | 26.00% |
|             | Private non-religious | 81             | 30.60% |
|             | Public school B       | 59             | 22.30% |
|             | Private (Christian)   | 56             | 21.10% |
| Grade level | Grade 7               | 109            | 41.10% |
|             | Grade 8               | 156            | 58.90% |
| Gender      | Male                  | 137            | 51.70% |
|             | Female                | 128            | 48.30% |

### Analysis

Cross-tabulation and independent samples t-tests were used to estimate gender differences in levels of EFL reading engagement and comprehension. Analysis of variance was employed to test differences in EFL reading engagement and comprehension between different levels of parent's education (separately for fathers' and mother's education level). To test predictions about the differential mechanisms through which parents' education level influenced EFL reading, we used path analysis using multiple regression conducted separately for boys and girls. Following procedures recommended by Keith (2006), reading comprehension was first regressed on all five predictor variables. Then, reading engagement was regressed on the four family background variables (fathers' education level, mothers' education level, parental involvement in reading, and provision of reading resources at home). Next, parental involvement was regressed on fathers' and mothers' education level. Last, provision of reading resources was also regressed on fathers' and mothers' education level.

### RESULTS AND DISCUSSION

Before presenting the results of the relationships between family background and reading comprehension, we describe and discuss gender differences in the participants' level of reading

engagement and comprehension.

#### Boys' and girls' reading engagement and comprehension

Cross-tabulation of students' gender and their self-reported EFL literacy activities shows that girls read ELF materials, particularly fiction, more frequently than boys (see Table 2). The composite score (average of students' responses to the four activity frequency items) served as an index of EFL literacy engagement. An independent samples t-test confirmed that girls reported of being engaged in EFL reading and writing more frequently than boys ( $t(263) = 2.744$ ;  $p = 0.001$ ). This likely reflects that girls value and enjoy literacy, including in EFL, more than boys.

Comparing across reading genres, it is interesting to note that the participants spent more time on reading English language non-fiction materials compared to both fiction and news/current event. This finding may indicate when they accessed English language texts, most of the students did it for informational purposes. That is, the driver for reading English language materials may be more extrinsic (using information for other purposes) rather than intrinsic (for the sake of enjoyment). If true, the improvement of students' interest and intrinsic motivation in reading English language texts is an area on which EFL teachers need to focus. Of course, these conjectures need to be empirically tested through further research.

Table 2. Cross tabulation between students' gender and EFL activities.

| How often do you engage in these activities (outside of school) on a typical day? |                  | Male |       | Female |       | Total |       |
|---|------------------|------|-------|--------|-------|-------|-------|
|   |                  | N    | %     | N      | %     | n     | %     |
| Read fiction in English   | Never            | 71   | 51.8% | 52     | 40.6% | 123   | 46.4% |
|   | Up to 30 minutes | 46   | 33.6% | 35     | 27.3% | 81    | 30.6% |
|   | Up to 45 minutes | 11   | 8.0%  | 23     | 18.0% | 34    | 12.8% |
|   | Up to 60 minutes | 5    | 3.6%  | 6      | 4.7%  | 11    | 4.2%  |
|   | > 60 minutes     | 4    | 2.9%  | 12     | 9.4%  | 16    | 6.0%  |
| Read non-fiction in English   | Never            | 46   | 33.6% | 37     | 28.9% | 83    | 31.3% |
|   | Up to 30 minutes | 44   | 32.1% | 41     | 32.0% | 85    | 32.1% |
|   | Up to 45 minutes | 17   | 12.4% | 21     | 16.4% | 38    | 14.3% |
|   | Up to 60 minutes | 20   | 14.6% | 12     | 9.4%  | 32    | 12.1% |
|   | > 60 minutes     | 10   | 7.3%  | 17     | 13.3% | 27    | 10.2% |
| Read news, current events in English.   | Never            | 64   | 46.7% | 57     | 44.5% | 121   | 45.7% |
|   | Up to 30 minutes | 51   | 37.2% | 43     | 33.6% | 94    | 35.5% |
|   | Up to 45 minutes | 12   | 8.8%  | 14     | 10.9% | 26    | 9.8%  |
|   | Up to 60 minutes | 6    | 4.4%  | 6      | 4.7%  | 12    | 4.5%  |
|   | > 60 minutes     | 4    | 2.9%  | 8      | 6.2%  | 12    | 4.5%  |
| Writing/composing texts in English.   | Never            | 103  | 75.2% | 79     | 61.7% | 182   | 68.7% |
|   | Up to 30 minutes | 22   | 16.1% | 19     | 14.8% | 41    | 15.5% |
|   | Up to 45 minutes | 7    | 5.1%  | 10     | 7.8%  | 17    | 6.4%  |
|   | Up to 60 minutes | 3    | 2.2%  | 11     | 8.6%  | 14    | 5.3%  |
|   | > 60 minutes     | 2    | 1.5%  | 9      | 7.0%  | 11    | 4.2%  |

In addition, far fewer participants spent time writing compared to reading in English, with most participants (68.7%) reporting to never having engaged in composing texts in English. In a sense, this is unsurprising, given that writing is more cognitively taxing than reading. This also indicates the need for pedagogies, which build students' interest and enjoyment in using English to produce texts. On the flip side, it is encouraging to find that the students reported that they spent a substantial amount of time (at least 45 minutes per day) composing in English. Most likely, these students already felt comfortable in communicating in English. While there were only a few of these students per class, they could serve as resource persons to assist teachers in various class activities.

With regards to their reading comprehension score, as expected the participants scored higher in the lower-order items (retrieval of information from texts) than the higher-order ones (interpretation/inferring meaning)

(see Table 3). Girls slightly outperformed boys on the text interpretation questions, but the gender differences in reading comprehension scores were not statistically significant ( $t(263)=0.184$ ,  $p=0.78$ ;  $t(263)=-1.549$ ,  $p=0.971$ ;  $t(263)=-0.827$ ,  $p=0.926$  for retrieval, interpretation, and total scores respectively). This was due to the large variation of test scores within each gender, pointing to the need of a much larger sample to determine the existence and extent of girls' advantage in ELF reading comprehension (especially in deeper comprehension tasks). At present, the large variation in reading comprehension for both genders is itself a matter of concern. The top 25% of students obtained scores of between 60 to 100, while the bottom 25% obtained scores of between 0 to less than 30. This underscores the challenge faced by EFL teachers in catering for students with a very wide range of prior proficiencies in a single classroom.

Table 3. Reading comprehension scores for boys and girls.

| Reading comprehension | Male  |       | Female |       | Total |       |
|-----------------------|-------|-------|--------|-------|-------|-------|
|                       | Mean  | SD    | Mean   | SD    | Mean  | SD    |
| Retrieval             | 49.27 | 31.50 | 48.57  | 30.74 | 48.93 | 31.08 |
| Interpretation        | 37.88 | 22.37 | 42.27  | 23.87 | 40.00 | 23.17 |
| Total score           | 42.43 | 22.91 | 44.79  | 23.53 | 43.57 | 23.20 |

**Parents' education and students' reading outcomes**

Analysis of variance revealed significant differences in students' reading engagement as well as comprehension scores in terms of their fathers' and mothers' education level. As the error bars indicate, for reading engagement there seems to be a gradual increase along the four

levels of parental education (see Figure 2). For reading comprehension, however, the critical junction seems to be between a parent having or not having a university degree (either a diploma, an undergraduate, or a postgraduate degree, see Figure 3).

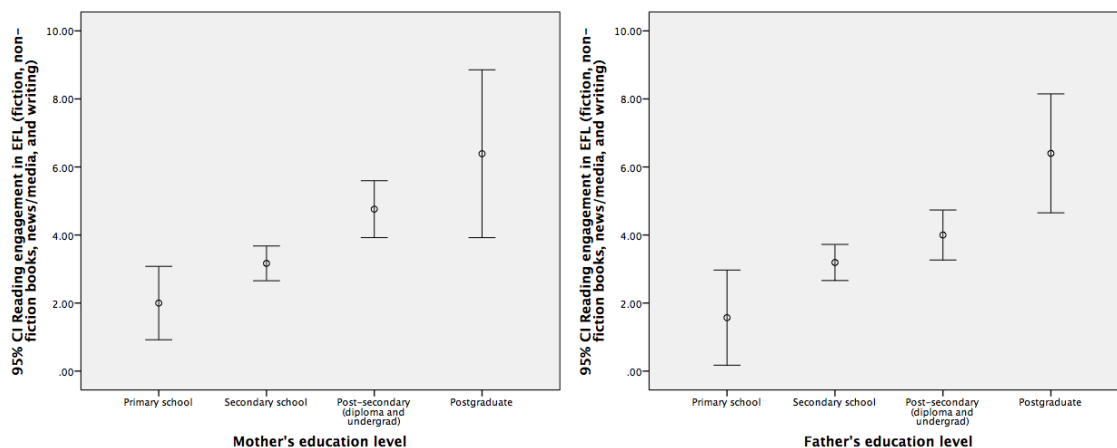


Figure 2. Confidence intervals of reading engagement across parental education levels

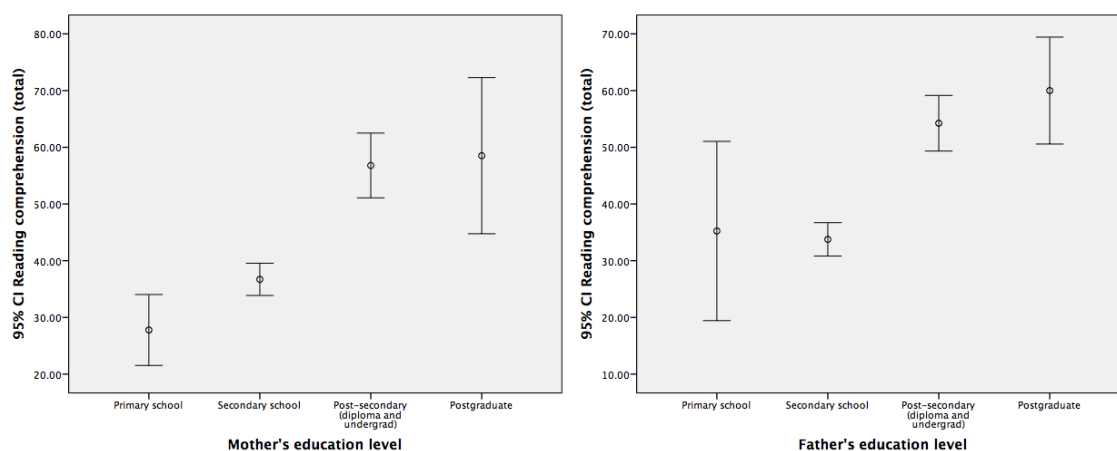


Figure 3. Confidence intervals of reading comprehension across parental education levels

What might explain this relationship between parental education and students' EFL literacy? Parental education, along with parents' profession, income, and home possessions, together make up students' socioeconomic status or SES (Sirin, 2005). Theoretically, the influence of SES on students' achievement can occur through a number of pathways (some of which are examined in this study; see next section). For example, students from higher SES families tended to have better access to non-school related books as well as digital/online materials, because their parents placed greater value on literacy (Barone, 2006). Those students are also more frequently exposed to, and participate in, the kind of discourse employed in academic settings. Moreover, parents with higher education read more frequently, serving as literary role models their children (De Graaf, De Graaf, & Kraaykamp, 2000). All of this means that students from higher SES families typically possessed cultural capital, which gave them a head start to succeed in school.

These findings suggest that there is an equity problem in EFL reading achievement in secondary schools. The magnitude of the difference in reading comprehension (about 20 points in a 0 to 100 scale, which is more than 1 standard deviation) further suggests that the equity problem may be severe, relatively more so than in other main subjects. For

example, the OECD PISA study (2009) indicate that the socioeconomic gap in L1 literacy, science, and mathematics in Indonesia is comparably small to other countries, which is also smaller than the gap in EFL reading comprehension identified in this study.

Gaps in achievement, including in SES literacy as observed here, between SES groups are a source of concern for policy makers as well as for teachers and school leaders. Unlike teaching methods and learning activities, SES variables such as parental education and family income are beyond the control of teachers. If students from less educated and poorer families achieved 20% lower than their peers from more highly education and affluent families, this means teachers and schools who cater for lower SES students face significantly higher challenges in attaining the same outcomes. By implication, it would be unfair to demand those teachers and schools to aim for the same achievement standards as imposed by high-stakes, standardized tests (e.g. the English language test in Ujian Nasional, which all secondary students in Indonesia must take at the end of Year 9). Instead of imposing the same achievement standards, policy makers should focus on more resources in providing teachers of lower SES students with assistance and additional resources; such as better and more EFL



reading materials which students could freely use at school.

Of course, firm conclusions cannot be drawn due to the relatively small sample of the present study. Nonetheless, the sample did come from four secondary schools with different profiles (public and private, religious and non-religious), and hence we argue that these findings are sufficient to warrant a call for a larger scale survey examining equity in EFL learning outcomes.

**Gender differences in the effects of parents' education on reading**

This section presents findings from path analysis using multiple regressions examining the effects of parents' education level together with their involvement and

provision of reading resources on students' reading engagement and comprehension. As shown in Figure 4 and Figure 5, the overall regression results for each gender show that the predictor variables included in the study explained a larger variation of girls' (38.7%), compared to boys' (17.3%), EFL reading comprehension. That is, parental education, reading involvement, and provision of reading resources had larger influence on girls' reading comprehension. Nonetheless, the effects of those factors on boys were still substantial. These findings replicate previous studies on L1 literacy (Broeder & Stokmans, 2013; Park, 2008) and supports predictions from theoretical models which stipulate the importance of parental involvement in students' academic achievements (Senechal, 2006).

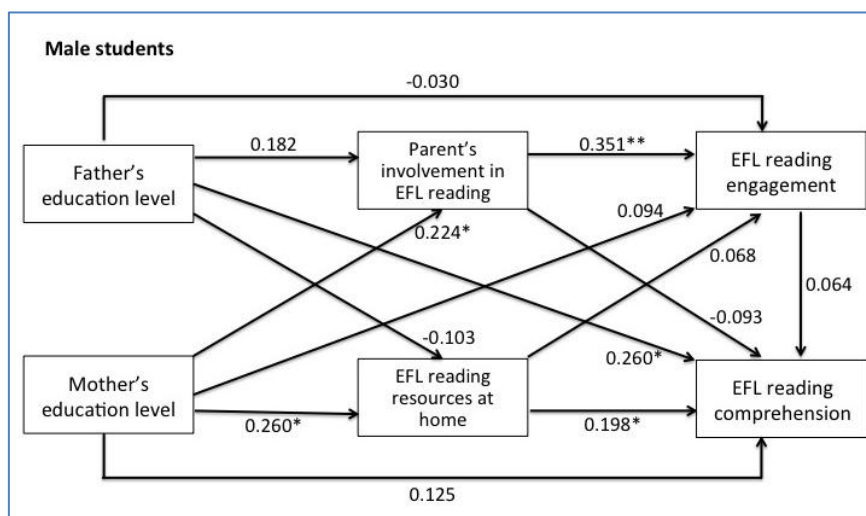


Figure 4. Parental background effects on boys' reading engagement and comprehension

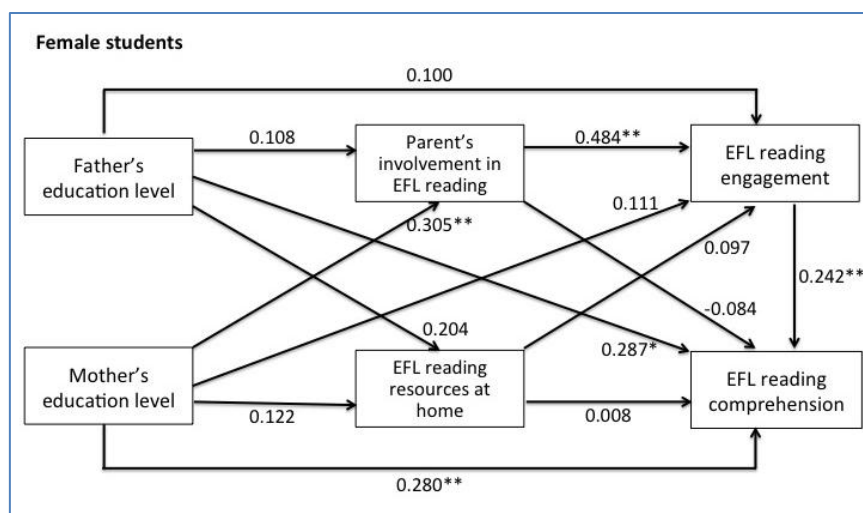


Figure 5. Parental background effects on girls' reading engagement and comprehension

The direct and indirect effects of each of the predictor variables on reading comprehension are summarized in Table 4. For both boys and girls, father's education level exerted more of a direct effect on reading comprehension, while mother's education level had a more indirect effect. The mechanisms by which

mother's education level influenced EFL reading comprehension differed between boys and girls. For boys, the indirect effect of mother's education level occurred through the provision of EFL reading resources at home, which in turn directly influenced EFL reading comprehension. Curiously, for boys,



reading engagement and comprehension seems to be unrelated. Whereas comprehension was influenced by the provision of resources, engagement was more influenced by parental involvement, which was associated with parents' (especially mothers') level of

education. Thus, it seems that boys who share their literacy activities with their parents are also more avid readers outside of school, but not necessarily better at school-type reading tasks such as the reading test used in this study.

Table 4. Direct and indirect effects of predictor variables on reading comprehension.

| Predictors of reading comprehension       | Boys          |                 |              | Girls         |                 |              |
|---|---------------|-----------------|--------------|---------------|-----------------|--------------|
|   | Direct effect | Indirect effect | Total effect | Direct effect | Indirect effect | Total effect |
| EFL reading engagement                    | 0.064         | -               | 0.064        | <b>0.242</b>  | -               | <b>0.242</b> |
| EFL resources at home                     | <b>0.198</b>  | 0.004           | <b>0.202</b> | 0.008         | 0.023           | 0.031        |
| Parent's EFL reading behavior/involvement | -0.093        | 0.022           | -0.071       | -0.084        | 0.117           | 0.033        |
| Father's education level                  | <b>0.260</b>  | -0.036          | <b>0.224</b> | <b>0.287</b>  | 0.034           | <b>0.321</b> |
| Mother's education level                  | 0.125         | 0.037           | <b>0.162</b> | <b>0.280</b>  | 0.041           | <b>0.321</b> |

For girls, mother's education level had both direct and indirect effects on students' reading comprehension. However, the indirect effect occurred more through involvement with their daughters' reading activities, which in turn influenced the girls' reading engagement and comprehension. Hence, among girls, parents' involvement seems to have a positive influence on both EFL reading engagement and comprehension. This indicates that girls, compared to boys, are more receptive of their parents' (especially mothers') involvement in literacy activities, including in EFL, a finding that is consistent with previous research of adolescent-parent relationships in other cultural contexts (Crouter et al., 1995; Shek, 2007).

On the other hand, the provision of reading resources at home does not seem to be important for girls' EFL reading. This may suggest that girls have more access to, or more willing to access, reading resources outside the home. This may include sharing books among friends, from the school library, or community libraries. At present, while plausible, this conjecture is based on little more than anecdotal evidence from our own observations as parents and teachers. If supported by further research, this can have important implications for practice, as will be elaborated in the next section.

### CONCLUSION AND IMPLICATIONS

The general conclusion emerging out of this study is that parental education exerts considerable influence on students' reading engagement and comprehension in EFL, but with important differences between boys and girls on the mechanisms of the influence. While for boys reading comprehension is influenced by the provision of materials support (in the form of reading resources at home), for girls it is parental involvement which is more influential. These findings extend current knowledge about how parental education, as a key part of students' socioeconomic status, influence literacy outcomes in a foreign language. The general implication for practice is that secondary school students in

Indonesia, especially whose parents have lower education levels, would benefit from gender-sensitive interventions to promote EFL reading engagement and comprehension. More specific recommendations for future research and pedagogical practice include the following:

- Boys should be facilitated through the provision of reading materials. For boys from lower SES families, the availability of interesting reading materials outside the home may be vital. Accordingly, schools and teachers could cater to this need, for example by making space for a class reading corner, stipulating free reading time in class, getting boys to come to the library more often, and involving boys in selecting books for the reading corner or the school library.
- The lack of link between reading engagement and comprehension among boys imply that the quality of their reading process maybe sub-optimal. Hence, future research needs to examine *what* and *how* boys read EFL materials. Teachers and parents should not be content with getting boys to read frequently, because this does not necessarily translate into comprehension skills.
- Teachers and schools should communicate with parents, especially who do not have university education, in designing literacy activities in school which involve parents and their children. Such activities could be especially effective in enhancing reading comprehension for girls from lower SES families.
- Further research is required on girls' reading activities in their social circles (including at school activities, but outside formal lessons). Schools and teachers can capitalize on girls' social reading activities by endorsing and even facilitating them, such as simply by providing time and space or connecting younger students with seniors or alumni who are interested in EFL literacy.

- This study has managed to identify part of the mechanisms by which parents' education influences adolescents' reading comprehension. However, mechanisms by which father's education influences boys' reading comprehension remain unexplained by the current model and requires further study.

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