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Exploring the Impact of Family Socio-Economic Status on Children's Bilingual Abilities Among Arab Families

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Abstract: This study investigates the impact of family socio-economic status on children's bilingual oral language and reading abilities. The participants were 92 Arabic–English bilingual children (Mean_{age} = 8.52 years old) in Grade 3 of primary schools and their parents in the United Arab Emirates. A correlational research design was used. The children completed several bilingual oral language and reading tests, and their parents filled in the family background questionnaire. The results of general regression show that mothers' education level and family income affected children's English, but not Arabic, oral language and word reading abilities. Family income was a significant predictor of children's English oral language skills, and mothers' education level contributed to children's English word reading. However, fathers' education level did not predict children's bilingual abilities. The contextual influence on children's language and literacy development is discussed.

Keywords: socio-economic status; bilingual; oral language; reading



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1. Introduction

In today's globalized world, mastering a second language (L2) has become an essential ability. Bilingual children are defined as those who are able to use two or more languages in their daily lives (Grosjean, 1992). Research has been widely conducted to explore various predictors of children's bilingual language and literacy competence (e.g., Farangi & Mehrpour, 2024; Xie et al., 2023, 2024; Xie & Yeung, 2022, 2024). Family socio-economic status (SES), which is usually represented by parents' education levels and family income, is found to be a prominent non-cognitive predictor of children's language and literacy abilities (Aram et al., 2013; Cangelosi et al., 2024; Dewi et al., 2024; Farangi & Mehrpour, 2022, 2024; Farangi & Naami, 2024). However, the contribution of SES to language development is unexplored in Arab contexts, and it remains unclear as to whether family SES affects children's L2 proficiency to a similar or different degree, relative to their first language (L1) proficiency.

The developmental trajectory of an L1 and an L2 may be different (e.g., Cho et al., 2019; Xie et al., 2024). Especially for sequential bilingual children living in a society where their L1, not L2, is the official and predominant language, their L1 acquisition typically occurs naturally during early years through immersion, while L2 learning often requires explicit instruction and begins at a later age. Therefore, L2 learning may require more educational resources and social support (Xie et al., 2022). A number of studies highlighted the importance of home literacy environment and SES in children's L2 abilities (Bellocchi & Bonifacci, 2023; Kang et al., 2023; Liu & Chung, 2024). However, scant research has

been conducted to compare the degree of the contribution of SES to children's language proficiency in an L1 as opposed to an L2. Altinkamis and Simon's (2020) study in Turkish–Dutch bilingual children living in a Dutch-speaking society indicated that compared with the L1 abilities, children's L2 abilities were affected by mothers' education level to a larger extent. Xie et al.'s (2022) study in Chinese–English bilingual children in a Chinese society showed that SES influenced children's morphological and vocabulary knowledge in the L2, but not in the L1. These studies suggest that SES may be especially crucial for children's L2 development.

Several studies attempted to reveal the mechanisms underlying the relation between SES and L2 competence (e.g., Aarts et al., 2016; Butler, 2014; Duncan & Paradis, 2020). It was shown that parents in higher SES families tend to provide their children with better parenting style, support, and more parental involvement, and they also tend to have more appropriate attitudes and higher expectations towards their children's learning and achievement; all these in turn affect their children's development in a second or foreign language (Aro & Mikkilä-Erdmann, 2015; Butler, 2014; Duncan & Paradis, 2020). For example, Butler's (2014) study conducted among Chinese children learning English found that parents with higher SES were more likely to adapt their support according to their children's needs and create opportunities to use English outside school, thereby promoting their children's confidence and motivation to learn English. By contrast, lower SES parents tended to be more controlling and less responsive to their children's changing needs, which, in turn, adversely affected children's development in English. The findings of these studies echoed the self-determination theory, suggesting that people are intrinsically motivated by three basic psychological needs: relatedness, competence, and autonomy (Bandhu et al., 2024; Deci & Ryan, 2008). Children from affluent families and whose parents are well educated are more likely to be nurtured with better parenting (Zhang et al., 2022), which facilitates the basic psychological needs and thereafter promotes children's intrinsic motivation to learn (Ryan & Deci, 2000).

Another possible explanation for the relation between SES and children's bilingual abilities is that students who live in a family with higher SES are more likely to be enrolled in higher ranked schools that have reputations for providing high quality education (Bao et al., 2023; Hakimov et al., 2022). Greenberg (2011) found that even among children who were five years old or younger, mothers' education level was related to children's preschool education quality. In addition, mothers who are better educated may be more capable of supporting their children's language development. Duncan and Paradis (2020) found that mothers with better education background tended to be more proficient in an L2, which in turn, better promoted their children's L2 development. A study by Aarts et al. (2016) showed that mothers with higher SES tended to provide children with more diverse lexical input in shared reading.

Only a few studies examined the association between SES and children's language and literacy abilities in Arab societies (excluding Israel, which is not an Arab society although many people speak Arabic there), and, in particular, there is a lack of such study exploring this association among preschool and primary school children. Bouhlila (2017) conducted a study among adolescents in Jordan, Tunisia, Qatar, and the United Arab Emirates (UAE), who participated in the Programme for International Student Assessment (PISA). They found that students with higher SES performed better in reading. By analyzing the data from the International Reading Literacy Study (PIRLS), Maluch's (2022) study focusing on fourth graders in the UAE showed an association between SES and reading performance. Using a mixed-method approach, Salameh and Sathakathulla's (2018) study conducted among secondary school students in the UAE showed an association between family economic status and English (L2) proficiency, and a follow-up interview with

schoolteachers indicated that parents' recognition of the importance of education and parental involvement in children's learning are key determinants of students' achievement in English.

The family and social background predictors of Arabic reading achievement may not be similar to those of English reading achievement. Maluch (2022) investigated fourth graders who attended Arabic- or English-medium schools in the UAE. Her results of hierarchical regression showed that the frequency of target language use and the number of books at home, preschool attendance, and school SES (represented by the average students' SES in the school) predicted English reading performance among the students in English-medium schools; however, these background factors did not predict Arabic reading performance among the students in Arabic-medium schools. By interviewing several parents and teachers of preschool children in the UAE, Tibi et al. (2013) found that children might not have enough opportunities at home or preschool to develop emergent writing skills in Arabic. A survey conducted by Carroll et al. (2017) among Emirati parents of children from 5 to 12 years old also suggested that there were few home literacy practices for promoting children's Arabic literacy.

Gender roles are emphasized in Arab societies, and the father in a family is usually the breadwinner, while the mother takes on the responsibility of taking care of the family, including raising and nurturing children (Lee et al., 2023; Slak Valek & Picherit-Duthler, 2021). Many mothers are housewives and do not work outside the home. Thus, mothers' education level and family income may not be related in these Arab families, and the influence of mothers' and fathers' education levels on children's development may be different. As it is usually the mothers who take care of children in an Arab family (Lee et al., 2023; Slak Valek & Picherit-Duthler, 2021), we reasoned that mothers' education level may be a stronger predictor of children's bilingual language competence relative to fathers' education level.

The Present Study

In terms of the existing literature, there is a dearth of research investigating the impact of SES on primary school children's language and literacy abilities in an Arab society. In addition, the studies comparing the effects of SES on language proficiency in an L1 as opposed to an L2 are far from sufficient. Based on this context, the current study aims to compare the impacts of mothers' and fathers' education levels as well as family income on Arabic–English bilingual children's L1 and L2 oral language and reading abilities in the UAE. The effects of SES are likely to be shaped by cultural contexts (Ishii & Eisen, 2020), and thus the findings of this study can extend the literature and potentially advance our understanding of how SES factors affect children's bilingual abilities in terms of cultural contexts. As fathers' and mothers' roles are usually quite different in Arab families (Lee et al., 2023; Slak Valek & Picherit-Duthler, 2021), we examined the effects of fathers' and mothers' education levels separately.

Furthermore, children's oral language skills and reading abilities are likely to be affected by different contextual factors. For example, existing studies have shown that language exposure is crucial in the development of oral language skills, whereas the teaching of print and literacy activities that require children to pay attention to the print contributed to children's print and reading skills (Kalia & Reese, 2009; Quiroz et al., 2010; Sénéchal & LeFevre, 2014; Xie et al., 2022). Therefore, we investigated the effects of these SES factors on oral language skills and reading skills separately.

Our study is guided by the following research question: Do fathers' and mothers' education levels and family income contribute to children's Arabic (L1) and English (L2) oral language and reading performance? We hypothesized that fathers' and mothers'

education levels as well as family income affect children's bilingual spoken language and reading skills. We additionally predicted that these SES factors affect children's language and reading skills in the L2 more strongly than in the L1. Mothers' education level has a stronger effect on children's bilingual abilities than fathers' education level in Arab families.

2. Materials and Methods

2.1. Participants

A total of 92 Grade 3 primary school Arabic–English bilingual children (53 girls and 39 boys) aged from 7.83 to 9.55 years old ($\text{Mean}_{\text{age}} = 8.52$ years old, $SD = 0.375$) and their parents participated in this study. All these children were from Arab families with the L1 of Arabic, and they were recruited from five private schools in Al Ain, the UAE, where children typically start to learn English in kindergarten at the age about four years old. English was taught as a subject in these primary schools with the instructional language being English. In the UAE, public schools are only for Emirati students, whereas private schools recruit both Emirati students and students from the expat families that constitute the majority of the UAE's population. Hence, the SES gap of children in private schools is larger relative to public schools.

Ethical approval for this study was obtained from UAE University and Abu Dhabi Department of Education and Knowledge. In addition, we obtained parental consent before this study.

2.2. Measures and Procedures

The parents filled in the family background questionnaire, and children completed several bilingual spoken language and reading tasks in their schools over two days. Two children did not show up for the bilingual reading tests. The family background questionnaire and the instruction of the tasks were provided in Arabic, the first language of the children and their parents.

The receptive vocabulary and reception of grammar tasks were used to indicate children's oral language abilities, and word reading accuracy and fluency tasks were used to indicate their reading abilities. As the items of these language tasks directly test target language abilities, the face validity of these tasks is ensured. The audial materials for the Arabic oral language tasks were pre-recorded by a native Arabic speaker, and these materials for oral English language tasks were pre-recorded by a native English speaker. All these measures were piloted among another group of Grade 3 children in Al Ain, and the selection of the items was based on the pilot testing results in terms of item difficulty and discrimination power. The Cronbach's α values of the measures are presented in Table 1.

Table 1. Descriptive statistics.

Variable	Mean	SD	Cronbach's α	Skewness
Fathers' education level	3.74	1.518		
Mothers' education level	4.14	1.001		
Family income	2.91	2.121		
Arabic vocabulary	16.55	3.620	0.69	−0.56
Arabic grammar	9.79	1.997	0.96	−0.66
Arabic word reading accuracy	21.60	9.914	0.99	−0.99
Arabic word reading fluency	28.88	18.240	1.00	0.27
English vocabulary	10.93	3.983	0.63	0.49
English grammar	9.40	3.345	0.96	−0.01
English word reading accuracy	20.02	12.301	0.99	−0.49
English word reading fluency	42.96	24.877	1.00	−0.26

2.2.1. Family Background Questionnaire

Parents were requested to fill in the Family Background Questionnaire to report information such as the child's date of birth, ethnic group, and any learning or developmental difficulties. They also reported their education levels and family income. The participants who reported their child as not an Arab were ruled out for this study. None of the parents reported their children as having learning or developmental difficulties. Fathers' and mothers' education levels were ranked from 1 (Primary Education (Grade 1 to 6)) to 6 (Doctorate). They were allowed to specify their education level if the options listed were not accurate to their education level. Family income was ranked from 1 (AED 8000 or below) to 7 (over AED 40,000).

2.2.2. Arabic Receptive Vocabulary

A total of 30 items from the British Picture Vocabulary Scale—2nd Edition (BPVS-II; [Dunn et al., 1997](#)) were selected to assess children's Arabic vocabulary knowledge. This scale is one of the most widely used standardized task to examine people's vocabulary knowledge. The reliability, concurrent validity, and diagnostic validity of this test have been widely reported in different populations (e.g., [Dunn et al., 1997](#); [Kazemi et al., 2012](#)). In this task, an Arabic word was orally presented together with four pictures, and children were asked to circle the picture that corresponded to the word. A correct answer was allocated one point.

2.2.3. Arabic Reception of Grammar

This task tested children's understanding of grammatical contrast. A total of 16 items adopted from the Test for Reception of Grammar—Version 2 (TROG-2; [Bishop, 2003](#)) were used. The TROG-2 is one of the most commonly used standardized test to examine grammatical comprehension. The reliability and concurrent validity of this task have been confirmed (e.g., [Bishop, 2003](#); [Carthery-Goulart et al., 2022](#)). In this task, an Arabic sentence was orally presented together with four pictures, and children were asked to circle the picture that corresponds to the meaning of the sentence. TROG-2 uses basic vocabulary (i.e., cat) to minimize the influence of vocabulary knowledge on performance. For all items tested, each correct answer merited one point.

2.2.4. Arabic Word Reading Accuracy

A list of 35 Arabic words was presented in prints with increasing difficulty. These words were selected from the Grade 1 to 5 textbooks used for the curriculum of Arabic in the UAE. In this task, children were required to read these words one by one, and each correct answer was scored one point.

2.2.5. Arabic Word Reading Fluency

A list of 70 Arabic words of increasing difficulty were presented in prints. These words were selected from Grade 1 to 3 textbooks used for the curriculum of Arabic in the UAE, and children were asked to read these words one after another as accurate and quickly as possible in one minute. They were instructed that if they did not know a word, they should say "don't know" and read the next word. The number of words that children read accurately in one minute was used as the score of this task.

2.2.6. English Receptive Vocabulary

A list of 30 items from the British Picture Vocabulary Scale—2nd Edition (BPVS-II; [Dunn et al., 1997](#)) was selected to assess children's English vocabulary knowledge. The procedure and scoring method were the same as the parallel task for Arabic vocabulary.

2.2.7. English Reception of Grammar

We used 16 items adopted from the Test for Reception of Grammar—Version 2 (TROG-2; [Bishop, 2003](#)) to test children's understanding of grammatical contrast in English. The procedure and scoring method were the same as the Arabic reception of grammar test.

2.2.8. English Word Reading Accuracy

Children were presented with a total of 35 English words of increasing difficulty in prints. The words were selected from the Grade 1 to 5 textbooks used for the curriculum of English in the UAE. In this task, children read these words one by one, and each correct answer merited one point.

2.2.9. English Word Reading Fluency

The Sight Word Efficiency subset of the Test of Word Reading Efficiency ([Torgesen et al., 1999](#)) was adopted to test children's reading fluency in English. A list of 104 printed English words of increasing difficulty were presented, and children needed to read these words one after another as accurately and quickly as possible in one minute. They were instructed that if they did not know a word, they should say "don't know" and read the next word. The number of words correctly read in one minute was used as the score of this task.

2.3. Data Analyses

Data analyses were conducted by using SPSS 30.0. We first conducted descriptive statistics by calculating the mean scores and standard deviation (SD) of all the measures. We additionally calculated the skewness scores for the language tasks to see if the scores on these tasks were normally distributed.

We calculated Cronbach's α values to check the internal consistency reliability of the language tasks used in this study. To examine the concurrent validity of the language tasks, we checked the correlation patterns of these tasks. Theoretically, vocabulary knowledge should be correlated with grammatical comprehension within each language. Word reading accuracy and fluency should be correlated ([Perfetti et al., 2005](#)). L2 vocabulary should correlate with L2 word reading, whereas L1 vocabulary may not correlate with L1 word reading accuracy, according to the previous findings (e.g., [Cho et al., 2019](#); [Xie et al., 2024](#)). Oral language is usually well developed before the start of learning to read in an L1; however, oral language and reading are usually instructed at a similar time in an L2 and, thus, children need to rely on vocabulary to some degree to develop word reading accuracy in an L2 ([Cho et al., 2019](#); [Xie et al., 2024](#)). Vocabulary should be associated with reading fluency in both L1 and L2, as reading fluency is largely affected by a reader's repertoire of sight words ([Joshi, 2005](#)). In terms of cross-language transfer between Arabic and English, word reading skills can usually be transferred between two alphabetic languages; whereas vocabulary may not be transferred as vocabulary is mainly determined by exposure to the specific language ([Quiroz et al., 2010](#); see [Chung et al., 2019](#); [Gottardo et al., 2021](#), for a review of cross-language transfer). The transferability of grammar depends on the degree of similarity of the grammar in the two languages ([Chung et al., 2019](#); [Gottardo et al., 2021](#)). As Arabic and English are contrasted in terms of grammar, we did not anticipate Arabic and English grammar to be correlated.

After checking the concurrent validity of the language tasks, we correlated SES factors with children's bilingual oral language and reading abilities. Based on the results of these correlations, we further conducted general regression models to investigate the prediction of children's bilingual oral language and word reading performance from the related SES factors.

3. Results

The descriptive statistics are presented in Table 1. Ten parents did not report family income on the Family Background Questionnaire. The Cronbach's α values of all these tests were 0.63 or above, showing that the tests had acceptable internal consistency reliability. The absolute values of skewness scores of all the language tasks were smaller than 2.00, indicating that the scores of all these measures were normally distributed (Gravetter & Wallnau, 2014).

We conducted zero-order correlations among all the language ability tasks (Table 2). Vocabulary and grammatical comprehension within each language were correlated ($r_s \geq 0.45$, $p < 0.01$). English vocabulary correlated with English word reading accuracy and fluency ($r \geq 0.29$; $p < 0.01$), whereas Arabic vocabulary correlated with Arabic word reading fluency ($r = 0.31$, $p < 0.01$). Bilingual word reading accuracy and fluency were strongly correlated with each other ($r_s \geq 0.51$, $p < 0.01$). All these correlations were aligned with previous findings and the theories about language abilities and cross-linguistic transfer (e.g., Cho et al., 2019; Chung et al., 2019; Joshi, 2005; Perfetti et al., 2005, please see the Data Analysis Section for the details); thus, these results demonstrate excellent concurrent validity of the language tasks used in this study.

Table 2. Zero-order correlations among the language tasks.

	1	2	3	4	5	6	7
1. Arabic vocabulary							
2. Arabic grammar	0.45 **						
3. Arabic word reading accuracy	0.20	0.32 **					
4. Arabic word reading fluency	0.31 **	0.35 **	0.78 **				
5. English vocabulary	0.08	−0.16	0.17	0.08			
6. English grammar	0.03	0.10	0.37 **	0.18	0.49 **		
7. English word reading accuracy	0.07	0.03	0.66 **	0.60 **	0.29 **	0.55 **	
8. English word reading fluency	0.12	0.07	0.66 **	0.62 **	0.30 **	0.51 **	0.92 **

** $p < 0.01$.

We calculated the composite score of Arabic oral language skills by adding up the z scores of the tests of Arabic vocabulary and grammar. The composite score of Arabic word reading was computed by summing up the z scores of Arabic word reading accuracy and fluency. In a same vein, we calculated the composite scores of English oral language and reading abilities. We then correlated these composite scores with children's family SES (see Table 3). We found that fathers' education level was correlated with family income ($r = 0.22$, $p < 0.05$). Mothers' education level and family income were correlated significantly with children's English oral language skills and word reading ($r_s \geq 0.25$, $p < 0.05$). Children's Arabic oral language and word reading skills did not correlate significantly with the SES factors. Fathers' education level did not correlate with children's bilingual oral language and word reading skills.

In the following section, we conducted two general regression models with mothers' education level and family income as the independent variables. We did not consider fathers' education level as an independent variable as it did not correlate with children's bilingual oral language and reading abilities. In the first model, children's English oral language skill was the dependent variable (Table 4), and we found that family income was a significant predictor (standardized $\beta = 0.280$, $p < 0.01$). Mothers' education level and family income altogether explained about 12.8% of the variance in children's English oral language skills.

Table 3. Zero-order correlations between SES factors and bilingual abilities.

	1	2	3	4	5	6
1. Fathers' education level	--					
2. Mothers' education level	0.08	--				
3. Family income	0.22 *	0.16	--			
4. Arabic oral language	−0.09	−0.01	−0.17	--		
5. Arabic word reading	0.20	0.16	0.08	0.37 **	--	
6. English oral language	0.07	0.25 *	0.31 **	0.02	0.25 *	--
7. English word reading	0.01	0.34 **	0.25 *	0.10	0.69 **	0.48 **

* $p < 0.05$, ** $p < 0.01$.**Table 4.** Multiple regression for predicting English oral language skills.

Predictor	β	SE	Standardized β	R^2
Mothers' education level	0.299	0.174	0.182	0.128 **
Family income	0.219	0.083	0.280 **	

** $p < 0.01$.

In the second model, children's English word reading ability was the dependent variable (Table 5), and mothers' education level significantly predicted children's English word reading ability (standardized $\beta = 0.277$, $p < 0.05$). Mothers' education level and family income altogether accounted for around 13.5% of the variance in children's English word reading. We did not conduct general regression with children's Arabic oral language skills and reading abilities as the dependent variables as they were not correlated with the variables of SES.

Table 5. Multiple regression for predicting English word reading.

Predictor	β	SE	Standardized β	R^2
Mothers' education level	0.521	0.202	0.277 *	0.135 **
Family income	0.193	0.101	0.204	

* $p < 0.05$, ** $p < 0.01$.

4. Discussion

This study investigates the contribution of SES factors to bilingual oral language and reading abilities among primary school children in Arab families. We found that family income was only correlated with fathers' but not mothers' education levels, and this could be explained by the usual gender roles in Arab societies that fathers usually work outside the home, while a large number of mothers are housewives, especially when they have children (Lee et al., 2023; Slak Valek & Picherit-Duthler, 2021).

We found different effects of fathers' and mothers' education levels and family income on their children's bilingual oral language and reading skills. The results indicate that mothers' education level and family income were related to children's English abilities, explaining around 12.8% of the variance in English oral language abilities and 13.5% of the variance in English word reading performance. These results echo previous findings (Bellocchi & Bonifacci, 2023; Kang et al., 2023; Liu & Chung, 2024) that suggest the importance of family SES in children's L2 language and literacy development. Relative to parents from lower SES families, parents from higher SES families are more likely to be involved in children's learning and development and provide better parenting and support to their children (Aro & Mikkilä-Erdmann, 2015; Butler, 2014; Duncan & Paradis, 2020). The better parenting in higher SES families more effectively promotes children's basic psychological

needs of relatedness, competence, and autonomy, which in turn may cultivate children's intrinsic learning motivation (Ryan & Deci, 2000).

We found specifically that mothers' education level predicted children's word reading performance. This result echoes previous findings, showing the impact of mother-related variables on children's language development (Al-Jarf, 2023; Quiroz et al., 2010; Duncan & Paradis, 2020). Mothers with better education background may have more knowledge about parenting and education; hence, they may better understand the learning needs of children and know how to provide more effective support for their children's language and literacy development. Reading performance can be promoted via the teaching of print and literacy activities (Kalia & Reese, 2009; Sénéchal & LeFevre, 2014). Mothers with a better education background may be more proficient in English as an L2 and more able to provide a more diverse lexical input through shared reading with children, as previous studies indicated (Aarts et al., 2016; Duncan & Paradis, 2020); thus, better educated mothers may be more capable of providing higher quality literacy activities and instruction at home for their children to develop reading skills.

Family income was found to predict children's English oral language abilities. This finding is consistent with previous findings, indicating family income as a predictor of children's L2 performance (Dewi et al., 2024; Salameh & Sathakathulla, 2018). It could be that parents in families with better financial status are more likely to spend money and provide resources for English learning, as suggested by Maluch's (2022) study conducted in the UAE, which found that parents' careers and economic status in English-medium schools is better than that of their counterparts in Arabic-medium schools. Richer parents may create more opportunities for children to participate in English learning activities and speak English outside schools, and, thus, their children may have more time to be exposed to English. In so doing, children in richer families can better improve their oral language in English as previous studies indicated that language exposure is important for developing oral language skills, especially vocabulary (Quiroz et al., 2010; Xie et al., 2022).

However, we did not find any effects of mothers' education level and family income on children's Arabic language and reading performance. Altinkamis and Simon (2020) as well as Xie et al. (2022) also found a much stronger predictive power of SES for L2 abilities than for L1 abilities. Relative to an L1, children usually develop oral language skills in an L2 at a later age and have less opportunities to be exposed to an L2 (Cho et al., 2019; Xie et al., 2024). This may make home environment and educational resources more important to support children's L2 development (Xie et al., 2022). Our findings are also similar to the findings of Maluch's (2022) study, which showed that the frequency of using the target language at home, the number of books at home, preschool attendance, and school SES predicted students' reading achievement in English but not in Arabic. There might be a general lack of effective home literacy practices in Arabic in the UAE (Carroll et al., 2017; Tibi et al., 2013) and, thus, the home environment has limited influence on children's Arabic reading skills. It could also be that wealthier families are more likely to emphasize children's English, and, thus, children in wealthier families may be exposed more to English and less to Arabic compared with children in less wealthy families. This may dilute the positive effect of SES on Arabic oral language abilities.

In addition, we did not find any relationships between fathers' education level and children's bilingual abilities. This could be explained by the sociocultural context of Arab families. The UAE is a conservative society with strict gender roles. Fathers in a family usually work outside the home and have very limited involvement in children's care and education (Lee et al., 2023; Slak Valek & Picherit-Duthler, 2021); hence, fathers may exert little influence on children's language and literacy development.

This study has important practical implications for promoting children's bilingual abilities. First, it suggests the importance of SES in children's L2 competency. Perhaps, offering grants and funding to schools with low SES may be an effective way to enhance educational resources in these schools and help children with low SES to promote their L2 development. This study also suggests the contribution of mothers' education level to children's L2 reading performance. Thus, women's and girls' education should be emphasized. Girls should be encouraged to pursue higher and further education. The improvement of women's education level in a society optimizes children's development (e.g., [Crosnoe et al., 2021](#)). In addition, this study shows a nonsignificant correlation between fathers' education level and children's bilingual abilities, and this may be due to fathers' limited involvement in children's education in Arab families. Hence, we suggest that Arab fathers, especially those who are well educated, should spend more time nurturing their children and be involved in their children's education. Fathers' involvement facilitates children's learning and development ([McWayne et al., 2013](#)). Furthermore, more home literacy practices in Arabic should be developed, and it is suggested that parents should provide adequate literacy activities to support their children's development in Arabic literacy skills.

This study has several limitations. First, it focuses on third graders only, and the findings may not be generalizable to older children. Future studies are needed to extend the current study by investigating children in higher grades and compare the findings with our study. Second, the children in this study came from five different private schools. Although these children lived in the same city and may have similar curricula and textbooks, there may be instruction-related variables that affect children's bilingual abilities. Third, this study only looks into the effects of SES factors on children's bilingual abilities. Other possible family background predictors of children's bilingual language and literacy development were not included in this study. For example, parental support and parents' time for child-rearing may also affect children's language development, but these factors were not investigated in this study. In terms of this problem, future studies involving more family-related predictors are needed to provide more comprehensive understanding as to how family background influences children's bilingual development. Last but not least, this study does not explore the mechanisms underlying the relation between SES and children's bilingual proficiency. Thus, future studies are needed to explore why and how SES affects children's bilingual abilities. For example, qualitative interviews can be conducted among parents with various SES to understand how different parents view the importance of children's bilingual competence and are involved in their children's language and literacy development. These explorations can advance our understanding as to how SES is associated with children's bilingual abilities and are therefore important.

5. Conclusions

This study explores the effects of mothers' and fathers' education levels and family income on Arabic-English bilingual children's L1 and L2 oral language and reading performance in Arab families. We found that mothers' education level was a significant predictor of children's English word reading performance, and family income significantly contributed to children's English oral language skills. However, we did not find associations between fathers' education level and children's bilingual abilities.

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Abbreviations

The following abbreviations are used in this manuscript:

SES	Socio-economic status
L1	First language
L2	Second language

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