

# The Influence of Early Bilingual Education (English) on the First Language (Arabic) Literacy Skills in the Second Grade of Elementary School: Saudi Arabia

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## Abstract

In bilingualism there are rigorous arguments among researchers on the inclusion of second language in early phases of L1 education. While some researchers support such inclusion, others advise that doing so might adversely affect the first language. In the context where this study was conducted (Saudi Arabia), despite the heated debate on introducing English to the Saudi primary schools, only few studies attempted to investigate the effect of teaching English from the first grade on the Arabic literacy skills. This research is a response to the lack of empirical evidence about the impact of learning a foreign language at a young age on L1 by investigating the effect of early bilingual education on the reading and writing (literacy) of Arabic (L1). The study was conducted on students from two Saudi elementary schools: a public school and a private school. The sample comprised 46 Arabic-speaking female students from grades two. The children were subdivided into 2 groups: 30 monolingual students and 16 bilingual students. The children took diagnostic tests to measure their linguistic development in their mother tongue. Over all, the results showed no negative impact on the reading and writing skills of Arabic if English is taught from the beginning of formal schooling.

**Keywords:** Bilingualism, foreign language

## 1. Introduction

There are a number of definitions for bilingualism in the available literature, but here, we use Pinter's (2006) definition where he describes being bilingual as having or using two languages and speaking them with the fluency characteristic of a native speaker. There are two ways (McLaughlin et al., 1995; Pinter, 2006; Tabors, 2008) in which children learn a second language: simultaneously and sequentially. Simultaneous second language learners include children under the age of 3 who are exposed to two languages at the same time. Such children may involve those who are exposed to a language spoken by their parents at home and another by providers of their early childhood programmes. Simultaneous learners also include young children whose parents speak separate languages to them at home (e.g. the mother speaks English to the child while the father speaks Arabic). Sequential learners comprise children who have become familiar with one language but are then introduced to, or required to learn, a second language. The prototypical example of sequential learning is when a non-English speaking child enters an English-dominant classroom. Sequential language learning, which can take place at any age and is usually influenced by aspects of the child's attitude or motivation. Sequential can be informal and formal. Informal contexts may be preschool, the home or the playground, and formal contexts often takes place in the school classrooms (Pinter, 2006). In this research, we focus on the sequential type and investigate the influence of English as a second language on Arabic as a first language in classroom contexts.

## 2. Literature Review

In the available literature of bilingualism, there is a large number of studies contradicting each other on the effect of the second language on the cognitive level and the verbal development of the first language. Some studies oppose the introduction of second language to children in early ages (e.g. Lewis, 1959; Manuel, 1935; Sear, 1923). Other studies found no harm of teaching second language alongside with the first language from early stages in school (Abu- Rabia & Siegel, 2002; Aljohani, 2016; Bialystok, 1988; Eassa & Al-Mutawa, 1998). However, another group studies welcome bilingualism and indicate that studying a second language early in school has in fact positive effects on both cognitive and verbal aspects (Brace & Bialystok, 2011; Bialystok, 2010; Bialystok & Craik, 2010; Ben-Zeev, 1977; Clyne, 1986; Harlin & Paneque, 2006; Kecskes & Papp, 2000).

Early research on bilingualism has argued for the negative effects of bilingualism, suggesting that monolingual learners outperform bilinguals on the cognitive level, (Lewis, 1959; Manuel, 1935; Sear, 1923). Sear (1923) was one of the earliest researchers to claim that speaking two languages leads cognitive constrains for children. Sear compared monolingual and Welsh-English bilingual children from rural and urban backgrounds and reported that the bilingual children from the rural areas obtained significantly lower scores than monolinguals on the Stanford-Binet Intelligence Scale.

Similar findings were reported in countries where English is taught as a foreign language (Al-Thaferi, 1999; Al-Shammary, 1989) and suggested that foreign languages should not be learnt at a young age due to the negative effects seen in mother language development (Al-Thaferi, 1999; Al-Shammary, 1989).

However, other studies have found no impact from learning English as a native language (Abu-Rabia & Siegel, 2002; Aljohani, 2016; Bialystok, 1988; Eassa & Al-Mutawa, 1998). Further, Bialystok (1988) found that monolingual and bilingual children were equally capable of detecting grammatical violations in meaningful sentences. e.g. "Apples grew on trees".

In the Saudi context, Aljohani (2016) designed a study with a sample consisting of 2,000 students (male and female) from 4 primary schools (public and private schools) to examine whether teaching English affected students' academic achievement in Arabic subjects. The study sample covered students from years one to six as well as students in year six from the last year before introducing English (2004) and the first year after introducing English (2005). The findings of the research showed no effect on achievement in Arabic subjects when learning English.

On the contrary of views opposing bilingualism at early stages, there are a considerable number of other studies arguing that bilingualism has in fact positive effects for children on cognitive and verbal levels (Ben-Zeev, 1977; Brace & Bialystok, 2011; Bialystok, 2010; Bialystok & Craik, 2010; Ben-Zeev, 1977; Clyne, 1986; Harlin & Paneque, 2006; Kecskes & Papp, 2000; Peal & Lambert, 1962).

An earlier study by Peal & Lambert (1962) compared 10-year-old monolingual children and 10-year-old French-English bilingual children's performances in verbal and non-verbal intelligence tests. The children were matched for age, socioeconomic status and gender, and the bilingual students were fully competent in both languages, i.e., 'balanced bilinguals'. Contrary to the findings of earlier work, the bilingual children outperformed the monolingual children in both verbal and non-verbal measures of intelligence.

On the metalinguistic level, Clyne (1986) claimed that children who learn a second language earlier have a better chance of developing metalinguistic awareness and can understand and think about their first language functions better than other children. He stated that this early metalinguistic awareness also seems to support reading skills. Therefore, Clyne claimed that teaching second languages in schools should be considered as a way to develop children's potentials.

A more recent study by Brace and Bialystok (2011) found that, in contrast to earlier warnings concerning the negative consequences of learning a second language at a young age, bilingualism was shown to be beneficial on a number of aspects of a child's development.

Although there are documented delays in acquiring some formal aspects of each language, such as vocabulary (Bialystok, 2010), bilingualism was found to have either no impact, e.g., on intelligence, or to have positive effects, e.g., on metalinguistic awareness and cognitive development, on development. Further, Bialystok and Craik (2010) report research that reviews how bilingualism affects linguistic and cognitive performance across a life span. Bialystok and Craik (2010) conclude that speaking two languages on a regular basis has broad implications for cognitive ability and enhances executive control functions across a life span. The only recorded negative consequences of bilingualism regard verbal knowledge and skill, specifically less rapid access and smaller vocabularies for lexical items. However, the recorded negative consequences are easily outweighed by the findings that support a range of advantages in the development, efficiency and maintenance of executive functions. Therefore, speaking more than one language appears to have a beneficial effect on some aspects of cognitive control. On the lexical level, from extensive research on bilingualism, Bialystok found that learning a second language at a very young age clearly benefits children's reading abilities.

In the Arabic context, there are also studies which support bilingualism from early stages in primary schools (Al-Mansour, 2009; Hussien, 2014; Landry, 1974). In Egypt for example, Hussien (2014) conducted a study on the effect of learning English on learning to spell and read connected texts accurately in Arabic (L1). The researcher selected a sample of 83 native Arabic-speaking students in grade 4 (38 males and 45 females; 45 bilinguals and 38 monolinguals). He reported that the bilingual (Arabic-English) students performed better than their monolingual (Arabic) counterparts in spelling, oral and reading accuracy.

Based on the controversial studies discussed above, additional research is needed to investigate the influence of the early intervention of a second language on the learning of the first language.

### 3. The Study

#### 3.1 Statement of the Problem

There are many arguments against teaching English as a foreign language at a young age that suggest why and how doing so might affect first language development. For example, Al-Ahmari (1992) states that other languages should not be taught to children until they are proficient in their first language, as he believes that studying a second language affects the mother language negatively. However, the ideas and arguments against teaching a second language have no empirical studies to support them (Al-Ganim, 2000; Al-Ahmari, 1992; Al-Nasser, 1991). Therefore, more studies are needed to determine the impact of learning a foreign language at a young age.

### 3.2 Research Objectives

The purpose of the present study was to investigate the effect of early bilingual education on reading and writing (literacy). The study included bilingual children (first language Arabic and second language English) at a private school and monolingual children whose mother language is Arabic and studied at a public school.

### 3.3 Research Questions

The study aims to answer the following questions:

1. Is there a difference in the L1 reading skills of students in grade two in private school (where English is taught from the first grade) and students in public school (where English is not taught)?
2. Is there a difference in the L1 writing skills of students in grade two in private school (where English is taught from the first grade) and students in public school (where English is not taught)?

## 4. Methodology

### 4.1 Participants and Instructional Context

The study was conducted in two Saudi elementary schools: a public school and a private school. These schools were chosen randomly from schools that occupy the first rank in terms academic achievement. Thus, students' overall class achievement is not expected to influence the test results. The public school teaches curricula of the first, second and third grades using the mother tongue, Arabic, English is introduced from the fourth grade. The private school teaches both Arabic and English starting from the first grade. All of the children were native Arabic speakers, and both the public school and the private school teach the same Arabic subjects.

The sample was comprised of 46 Arabic-speaking female students (one class consisting of 30 monolinguals in a public school and another of 16 bilinguals in a private school) from grades two. The two groups are in equivalent because it is often the case that public schools are larger than private schools due to payment required for private schools.

### 4.2 Procedures

The children were divided into 2 groups (public and private) and were given diagnostic tests to measure their linguistic development in their mother tongue. Group 1 consisted of 30 monolingual students in grade two, of the public school. Group 2 consisted of 16 bilingual students in grades 2 who studied at a private school and began learning both Arabic and English starting from the first grade. The children were tested individually in their respective schools by the researcher because they were too young and required a private assistant.

### 4.3 Instruments

The researchers employed a diagnostic test developed and authorized by experts at the Ministry of Education. The test is comprised of two parts to measure the children's language proficiency in reading and writing skills (literacy).

The reading measures seven sub-skills of reading ability (Reading letters and its Sub-signs, Reading words and its Sub-signs, Distinguishing between extension and Sub-signs, Reading words with Tanween, Distinguishing between Solar and Lunar letters in reading, Distinguishing between the Arabic letters ( ت , ه , ة ) in reading, Reading sentences correctly). The second test assessed writing skills, testing nine sub-skills (Writing letters with their diacritics, Separate the sentences into words, Separate the words into letters, Differentiating between elongation and diacritic in writing, Writing words with Tanween, Distinguishing between solar and lunar (al) letter in writing, Differentiating between (bound "ta") and (open"ta") and "hā" in writing, Writing sentences of various words (After checking and then covering them), Writing ten words(examination) to measure the students' writing ability).

#### 4.3.1 Validity and Stability of the Study Tool

##### A- External Validity of the Study Tool (Validity of Arbitration)

The diagnostic test was developed by specialists from the Ministry of Education and field practitioners were used. These tests were further revised and admitted by a committee of experts in the Ministry of Education to ensure that they covered all the basic skills to be mastered by students at level 2 in reading and writing.

##### B- Validity of Internal Consistency

Verifying the validity of the internal consistency of the study tool, the researchers calculated the correlation coefficients between the mark of every skill and the total mark of all the skills, as illustrated in Table 1.

Table 1. Pearson Correlation Coefficients between Every Skill and Total Mark of All Skills

Second grade reading		Second grade writing	
Clause Number	Correlation coefficient	Clause Number	correlation coefficient
1	.503**	1	.647**
2	.698**	2	.524**
3	.541**	3	.741**
4	.587**	4	.760**
5	.595**	5	.677**
6	.649**	6	.675**
7	.637**	7	.528**
-	-	8	.496**
-	-	9	.562**

\*\* Significant at the 0.01 level

As shown in Table 1, all the clauses are significant at the level of 0.01. This shows a high internal consistency and indicates strong and sufficient validity indicators that are credible to be applied in the current study (between 0.503 and 0.760).

#### 4.3.2 Stability of the Study Tool

The researchers measured the stability of the study tool using Cronbach's alpha coefficients. Table 2 illustrates the stability coefficients of the study tool's axes as follows:

Table 2. Cronbach's Alpha Coefficients to Measure the Stability of the Study Tool

Number	Axis	Tool Reliability
1	Second grade reading	0.896
2	Second grade writing	0.788
	Total reliability	0.863

In addition, Table 2 shows that the study's measurement has a statistically accepted reliability with total alpha coefficients of 0.863. It also has a high reliability that can be accepted for application in the current study, as the study tool's reliability coefficients range between 0.788 and 0.896.

## 5. Results

To answer the questions proposed in the study, the researchers entered data into the Statistical Package for the Social Sciences (SPSS) and conducted the necessary statistical analysis. In specific, the researcher calculated the mean value and used a t-test to observe whether there is a statistically significant difference between the two groups.

### 5.1 Results Related to the First Question

The first question is as follows: is there a difference in the L1 reading skills of students in grade two in private school (where English is taught from the first grade) and students in public school (where English is not taught)?

To answer this question, comparisons were made in reading skills among the students in the second grade between the public school and the private school, as shown in Table 3.

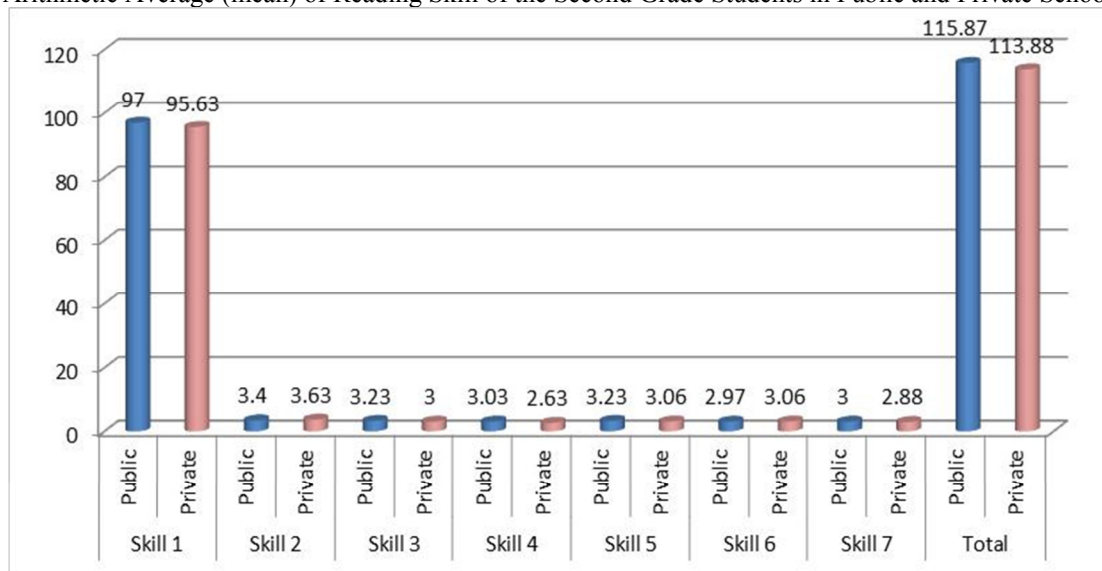
Table 3. (T) Test Results Present Two Independent Samples to Measure the Differences among the Second Grade Students' Reading Skills in Public and Private Schools.

NO#	Skill	School Type	Number	Average (mean)	Standard Deviation	(T) value	The Significance level
1	Reading letters and its Sub-signs	Public	30	97.00	9.88	.476	.636
		Private	16	95.63	8.14		
2	Reading words and its Sub-signs	Public	30	3.40	1.35	-.612	.544
		Private	16	3.63	1.09		
3	Distinguishing between extension and Sub-signs	Public	30	3.23	0.82	.866	.391
		Private	16	3.00	0.97		
4	Reading words with Tanween	Public	30	3.03	0.96	1.406	.167
		Private	16	2.63	0.89		
5	Distinguishing between Solar & Lunar letters in reading	Public	30	3.23	0.86	.608	.547
		Private	16	3.06	1.00		
6	Distinguishing between the Arabic letters ( , ة , ت) in reading	Public	30	2.97	0.96	-.325	.747
		Private	16	3.06	0.93		
7	Reading sentences correctly	Public	30	3.00	0.95	.425	.673
		Private	16	2.88	0.96		
Total	Total Marks for reading skill	Public	30	115.87	12.58	.527	.601
		Private	16	113.88	11.48		

According to Table 3, there is no significant statistical difference between the mean of the grades assigned to the reading skills of the second-grade students in the public school and those of the students in the private school. The significance level for skills reached 0.636 · 0.544 · 0.391 · 0.167 · 0.547 · 0.747 · 0.673 and the total reading skill mark reached 0.601, with a total exceeding 0.05, which is not statistically significant.

Figure (1)

Arithmetic Average (mean) of Reading Skill of the Second Grade Students in Public and Private Schools



### 5.2 Results Related to the Second Question

The second question is as follows: is there a difference in the L1 writing skills of students in grade two in private school (where English is taught from the first grade) and students in public school (where English is not taught)? Again, to answer this question, comparisons were made in writing skills among the students in the second grade between the public school and the private school as following:

Table 5. (T) Test Results Present two Independent Samples to Measure the Differences among the Second Grade Students' Writing Skills in Public and Private Schools.

No.	Skill	School Type	Number	Average (mean)	Standard Deviation	Value (T)	Significance Level
1	Writing letters with their diacritics	Public	30	100.00	0.00	2.328	.034*
		Private	16	95.31	8.06		
2	Separating the sentences into words	Public	30	2.80	0.48	-.088	.930
		Private	16	2.81	0.40		
3	Separating the words into letters	Public	30	2.53	0.78	-.662	.511
		private	16	2.69	0.70		
4	Differentiating between elongation and diacritic in writing	Public	30	3.77	0.43	.863	.399
		Private	16	3.56	0.89		
5	Writing words with Tanween	Public	30	10.23	2.05	.491	.629
		Private	16	9.75	3.64		
6	Distinguishing between solar and lunar (al) letter in writing	Public	30	3.47	0.63	.119	.906
		Private	16	3.44	1.03		
7	Differentiating between (bound "ta") and (open"ta") and "hā" in writing	Public	30	3.00	0.83	-.570	.574
		Private	16	3.19	1.17		
8	Writing sentences of various words (After checking and then covering them)	Public	30	14.83	1.05	.813	.428
		Private	16	14.06	3.71		
9	Writing ten words(examination)	Public	30	7.67	1.18	.225	.824
		Private	16	7.50	2.83		
Total	Total degree for writing skill	Public	30	148.30	4.94	1.117	.281
		Private	16	142.31	21.14		

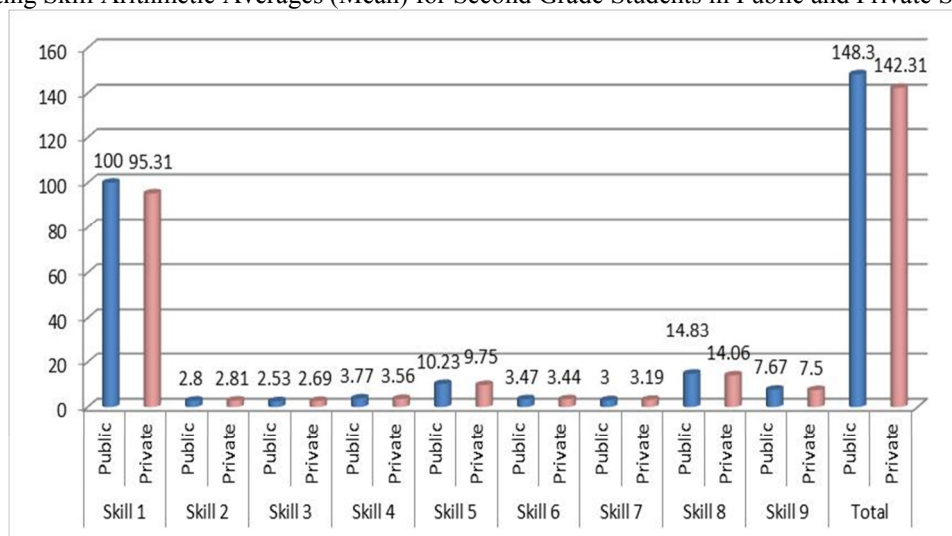
\* Significant at the 0.05 level

The results in Table 5 show a statistically significant difference at the level of 0.05 among the mean of the grades of the second-grade students in writing the alphabet using diacritics (the first skill), which is in favor of the public students by a 100 mean value in contrast with the 95.31 mean values for private students.



However, the table shows no statistically significant difference among the rest of the writing skill: breaking down sentences into words, breaking down words into letters, differentiating between elongation and diacritics in writing, writing words with "tanween", differentiating between solar and lunar (al) letters, differentiating between the bound 'ta' and the open 'ta' and 'ha' in writing, writing sentences with various words (after checking and then covering them), writing ten words (examination) and the total writing skill mark. The difference levels for these skills reached 0.930, 0.511, 0.399, 0.629, 0.906, 0.574, 0.428, 0.824 and 0.281, respectively; since their total is a value higher than 0.05, the difference in writing skills is not statistically significant.

Figure (3)  
 Writing Skill Arithmetic Averages (Mean) for Second Grade Students in Public and Private Schools



## 6. Discussion

It should be reminded that the purpose of the study was to investigate the effect of early bilingual education on reading and writing (literacy) of bilingual children in the second grade. Concerning the first question about the effect of English on the first language reading skills of students in private school (where English is taught from the first grade), the results show no significant statistical difference between the means of the grades of the second-grade students in the public school and those of the students in the private school in reading skills as a whole. These results are in agreement with other studies, which found no impact of learning a foreign language on the linguistic development of the mother tongue (Aljohani, 2016; Eassa & Al-Mutawa, 1998).

As to the second question about the effect of the English on the first language writing skills of students in grade two in private school, the results show that there was only one skill (out of nine) which had a statistically significant difference at the level of 0.05, the alphabet using diacritics, in favor of the public students. However, when considering the rest of the eight skills ( e.g. breaking down sentences into words, breaking down words into letters, differentiating between elongation and diacritics in writing etc.), it was shown that there is no statistically significant difference in these skills between second-grade students in the private school and those of the second-grade students in the public school. In addition, on aggregate of the total writing skills mark, there was no statistically significant difference either between the two groups. Similar to the case of the reading skill, these results also aligned with other studies, which found no negative impact of learning a foreign language on the development of the writing skills (Aljohani, 2016; Eassa & Al-Mutawa, 1998).

It should be mentioned, that while the second researcher was conducting the tests, she noted that bilingual students behaved better than monolingual students, and showed more of mental flexibility or plasticity of the mind. A similar note was also found by Mears (1983), who argued that a person who speaks two languages behaves differently than a person who speaks one language and intellectually appeared more flexible.

## 7. Conclusion

Based on the results of the study, the researchers conclude that the inclusion of English in early education in the Saudi schools should not be a fear for parents or policy makers on the learning of the Arabic literacy skills (reading and writing). With the controversy among researches on early bilingualism, the results of the study rest on the side of the inclusion of a foreign language from early stages. In other words, it supports the teaching of English from the first grade since, as observed; there was no significant difference in the L1 literacy skills between learners who were exposed to the second language and those who were not. There was no observable harm to the skills of L1 (Arabic) when the second language is taught (English) side by side the first language.

However, as the researchers were given a limited time and access to the second grade, another study investigating the delayed effect of English on learners in higher grades of the primary school, such as fifth or sixth grades, would be desirable. We, as parents or educators, are really more concerned about the final phase of effect of the second language on the first language, than the immediate effect in the first or second grades. Thus, a study which compares the effect of English on the Arabic literacy skills of the second grade and the Arabic literacy of the fifth or sixth grade will be illuminating.

## References

- Abu-Rabia, S., & Siegel, L. S. (2002). Reading, syntactic, orthographic, and working memory skills of bilingual Arabic-English speaking Canadian children. *Journal of Psycholinguistic Research*, 31(6), 661-678.
- Al-Ahmari, M. (1992). From speaking other languages to losing the identity. *Al-Bayan Magazine*, 54, 109-110.
- Al-Ghanim, F. A. (2000). Before we start. *Al-Marefah Magazine*, 57, 77.
- Aljohani, O. (2016). Does Teaching English in Saudi Primary Schools Affect Students' Academic Achievement in Arabic Subjects? *Advances in Language and Literary Studies*, 7(1), 214-225.
- Al-Mansour, N. (2009). Bilingualism and the Need for Early EFL Education in the Kingdom of Saudi Arabia. *J. King Saud Univ*, 21, 1-12.
- AL-Mutawa, N. (1996). Attitudes of Kuwait society towards introducing English as foreign language at primary schools EFLPS. *The ERIC Journal*, 7-37
- Al-Nasser, M. (1991). Teaching foreign languages to children. *Al-Bayan Magazine*, 36, 71-73.
- Al-Shammari, E. (1989). Teaching English in Saudi Arabia: To Whom, When and How Should English Be Taught? *Journal of King Saud University-Educational Sciences & Islamic Studies*, 1(1), 171-194.
- Al-Thaferi, M. (1999, January 26). The impact of the introduction of English subject on Arabic language in the elementary level in Kuwait schools. *Al-Watan Newspaper*.
- Barac, R., & Bialystok, E. (2011). Cognitive development of bilingual children. *Language Teaching*, 44(01), 36-54.
- Ben-Zeev, S. (1977). The influence of bilingualism on cognitive strategy and cognitive development. *Child development*, 1009-1018
- Bialystok, E., & Craik, F. I. (2010). Cognitive and linguistic processing in the bilingual mind. *Current Directions in Psychological Science*, 19(1), 19-23.
- Bialystok, E., Luk, G., Peets, K. F., & Yang, S. (2010). Receptive vocabulary differences in monolingual and bilingual children. *Bilingualism: Language and Cognition*, 13(04), 525-531.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental psychology*, 24(4), 560.
- Bialystok, E. (1991). *Language processing in bilingual children*. Cambridge University Press.
- Bialystok, E. (2010). Global-Local and Trail-Making Tasks by Monolingual and Bilingual Children: Beyond Inhibition. *Developmental Psychology*, 46(1), 93-105.
- Clyne, M. G. (1986). *An early start: Second language at primary school*. River Seine Publications.
- Durgunoglu, A. Y., & Goldenberg, C. (Eds.). (2011). *Language and literacy development in bilingual settings*. Guilford Press
- Eassa, M. R., & Al-Mutawa, N. A. (1998). Introducing EFL at primary school and its effect on Arabic. *The Educational Journal*, 12(46), 115-146.
- Elyas, T., & Picard, M. (2010). Saudi Arabian educational history: impacts on English language teaching. *Education, Business and Society: Contemporary Middle Eastern Issues*, 3(2), 136-145.
- Farran, L. K., Bingham, G. E., & Matthews, M. W. (2012). The relationship between language and reading in bilingual English-Arabic children. *Reading and Writing*, 25(9), 2153-2181.
- Harlin, R., & Paneque, O. M. (2006). Issues in Education: Good Intentions, Bad Advice for Bilingual Families. *Childhood education*, 82(3), 171-174.
- Hussien, A. M. (2014). The effect of learning English (L2) on learning of Arabic literacy (L1) in the primary school. *International Education Studies*, 7(3), p88.
- Kecskes, I., & nde Papp, T. (2000). *Foreign language and mother tongue*. Psychology Press.
- Landry, R. G. (1974). A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. *The modern language journal*, 58(1 - 2), 10-15.
- Lewis, D. G. (1959). Bilingualism and non - verbal intelligence: a further study of test results. *British Journal of Educational Psychology*, 29(1), 17-22.
- Liu, L. (2014). *The Effects of Bilingualism on Infant Language Development: The Acquisition of Sounds and Words* (Vol. 346). LOT.
- Luk, G., De Sa, E., & Bialystok, E. (2011). Is there a relation between onset age of bilingualism and enhancement of cognitive control? *Bilingualism: Language and Cognition*, 14(04), 588-595
- McLaughlin, B., Blanchard, A., & Osanai, Y. (1995). Assessing language development in bilingual preschool

- children. *NCELA Program Information Guide Series*, 22. Retrieved January 22, 2009, from <http://www.ncele.gwu.edu/pubs/pigs/pig2.htm>.
- Manuel, H. T. (1935). A comparison of Spanish-speaking and English-speaking children in reading and arithmetic. *Journal of Applied Psychology*, 19(2), 189.
- Melitz, J. (2014). English as a global language.
- Nunan, D. (2001). English as a global language. *TESOL quarterly*, 35(4), 605-606.
- Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs: general and applied*, 76(27), 1.
- Pearson, B. Z., & Fernandez, S. C. (1994). Patterns of interaction in the lexical growth in two languages of bilingual infants and toddlers. *Language learning*, 44(4), 617-653.
- Pinter, A. (2006). *Teaching Young Languages Learners*. Oxford University Press.
- Saer, D. J. (1923). The effect of bilingualism on intelligence. *British Journal of Psychology. General Section*, 14(1), 25-38
- Shakkour, W. (2014). Cognitive Skill Transfer in English Reading Acquisition: Alphabetic and Logographic Languages Compared. *Open Journal of Modern Linguistics*, 4(04), 544.
- Tabors, P. (2008). *One child, two languages: A guide for early childhood educators of children learning English as a second language*. 2d ed. Baltimore: Paul H. Brookes.
- Thordardottir, E. (2011). The relationship between bilingual exposure and vocabulary development. *International Journal of Bilingualism*, 15(4), 426-445.