

*Full Length Research Paper*

# The effect of diglossia on Arabic vocabulary development in Lebanese students

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Accepted 5 April, 2012

**In this study, the researchers attempted to address the main hypothesis that diglossia may impede vocabulary growth of Lebanese bilingual students [in L1 Arabic], but they should eventually catch up in the upper cycle. A correlation design based on a two-stage random sample was used with 100 participants including pre-schoolers, first, second, fourth and fifth graders, answering a standardized, US normed picture vocabulary test. Parents and teachers were also surveyed to answer a number of questions related to children's language preference at home and at school and vocabulary teaching practices. The results obtained show that their Arabic skills were not grade appropriate, especially the older students. Thus the negative effect worsens for the older group. Both parents and teachers recognized the challenges posed by the diglossia effect and most of them had no reliable strategies to draw on. Diglossia was therefore shown to impede vocabulary development in young Arabic of Lebanese bilingual students, a finding which should call for a reform in the Arabic language instruction in the school system. Implications of the study are detailed, and a number of instructional strategies are provided to palliate the effect of diglossia and address the Arabic language deficits in Lebanon.**

**Key words:** Diglossia, vocabulary acquisition, standard Arabic, colloquial Arabic, and educated spoken Arabic.

## INTRODUCTION

A growing body of evidence shows that student face a lot of difficulties learning the Arabic language mostly due to its diglossic nature (Ayari, 1996). Diglossia refers to the existence of two varieties of the same language: the standard Arabic or "fusha" and the colloquial or "ammiyya" (Versteegh, 2001, p. 189) which are linguistically distant (Saiegh-Haddad, 2003). Standard Arabic varies from colloquial Arabic in four main parts of the language which are "vocabulary, phonology, syntax, and grammar" (Abu-Rabia, 2000, p. 147). Thus, children perceive standard Arabic at school as a foreign language (Abu-Rabia, 2000). This is best captured by this Arab-Israeli teen's outcry: "In Arabic classes I am under stress not to say words I have learned in spoken Arabic. I ask myself why have they taught me things I should forget?!" (Brosh & Olshtain, 1995, p. 257)"

In Lebanon, there are other factors besides diglossia which may further hinder vocabulary development. They

include the lesser emphasis placed on Arabic in the curriculum relative to English or French, the relatively unappealing nature of instructional materials in Arabic, and the preference of parents to teach their children English or French at the detriment of Arabic. Maamouri (1998) attributed students' poor vocabulary repertoire to their limited daily exposure to essential words, lack of trained Arabic language teachers, and inconsistent reading habits at home. However, this study will be restricted to looking at diglossia in relation to vocabulary acquisition in school where the Arabic language is emphasized.

## Vocabulary instruction

### *Lexical presentation*

The concept of vocabulary acquisition is far more complicated than just memorizing the meaning of words. It is the teachers' job to guide student to learn appropriate words (Shewell, 2009). In her literature review, Mei-fang (2008) identified several approaches teachers are urged

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to keep in mind when teaching vocabulary, namely context, usage, morphology, grammar, frequency, and coverage (Mei-fang, 2008). In addition, teachers should not treat all words indiscriminately (Mei-fang, 2008; Fang and Xi-ya, 2009), help students select vocabulary words that lend themselves to categorization, and that have depth of processing with emphasis on inferencing strategies and mnemonics, such as keyword method (Broady, 2008), explain the targeted words, offer valuable feedback and finally teach the students to use different strategies to help them learn the targeted words (Shewell, 2009; Swanson and Howerton, 2007).

### **Vocabulary strategies**

Research on vocabulary teaching strategies mainly focuses on English as a foreign language or second language acquisition that is dominating the field (Broady, 2008).

The main empirical findings outlined in the literature recommend reading and vocabulary enhancement activities (Min, 2008), use of image-schema-based instruction especially for words with physical characteristics such as “over” (Morimoto and Loewen, 2007), use of explicit tasks for learners to be able to link both form and meaning of words (Webb, 2007), repeated fill-in-the-blank exercises (3 blanks) to increase word retention (Folse, 2006), glossing target words frequently and allowing students to retrieve the words in their native language (Rott, 2007).

As for lesson presentation, it seems that a task-based-language-teaching (TBLT) with the focus on forms component is most effective for retention (De La Fuente, 2006), and a collaborative learning approach surpasses individual learning on vocabulary tests (Kim, 2008). Other suggested strategies include “rote rehearsal, using visual aids, rote-playing, art activities, root-word approach, learning using music, physical activities, analogies, computer-assisted instruction, and synonyms” (Weatherford, 1990 in Akbari, 2008: 54), especially use of pictures (Akbari, 2008), flashcards (Shewell, 2009) and semantic mapping and finally relating new information to already stored information cognitively, use of schema-based theory such as learning by analogy, actively interacting with and manipulating words to better understand them (Fang and Xi-ya, 2009).

For younger students, the literature concurs that frequent storybook interactive aloud-reading (Robbins and Ehri, 1994) accompanied by brief explanations of target words, asking a few simple questions, pointing to pictures and naming pictures caused gains of up to 33% in vocabulary acquisition (Elley, 1989; Senechal et al., 1995). Initial vocabulary ability of the child is an important indicator to further gains. Children with higher vocabulary knowledge make more gains than children that initially possessed lower vocabulary knowledge (Penno et al. 2002). Primary language story book reading is helpful for

preschool children because it promotes cognitive development mainly related to concepts and language meanings, vocabulary enrichment, and more facility in acquiring second language vocabulary teaching (Roberts, 2008).

Similarly, children who read storybooks at home in their primary language outperformed children who read English books on English vocabulary acquisition, and were able to switch between the two languages easily without experiencing any negative effects on their second language vocabulary acquisition (Roberts, 2008).

Although it is generally assumed that “the earlier one starts learning a language, the better” (Miralpeix, 2007: 62), this view has been challenged by recent research indicating that the known belief “the younger the better” is not always the case when learning only occurs at school and input is minimal (Mayo and Lecumberri, 2003; Griffin, 1993; Munoz, 2006, as cited in Miralpeix, 2007: 62). Miralpeix (2007) investigated the effects of the following: age of onset, cognitive maturity and amount of exposure on the productive vocabulary acquisition of students studying English as a foreign language with 93 bilingual high-school students divided among three groups. Results demonstrated that age depends on implicit learning events where children outshine adults, but adolescents benefit more from explicit instruction which is usually found at school. This may explain why the belief the younger the better is recently challenged. This was also supported by a study of Schmitt (2000) in Miralpeix (2007) who found that late starters (adolescents) who are more cognitively mature have a faster rate of acquisition than early starters (children), which proves that adolescents are comparatively more adept at productive vocabulary knowledge and in the long run, early starters of vocabulary learning do not benefit from productive vocabulary unless they are repeatedly exposed to vocabulary. On the other hand, Nation (2001, cited in Vidal, 2003) argued that word exposure and repetitions only promote learning at moderate levels, and recommended instead deep process of the vocabulary in the form of explicit word elaboration.

### **Teaching Arabic: Order of varieties**

The area of teaching Arabic with respect to its order of varieties remains controversial due to the differences between the two varieties of the language components in terms of vocabulary, phonology, syntax, and grammar. Schools face several dilemmas best summarized by Brosh and Olshtain (1995). Should colloquial Arabic be emphasized first then introduce the standard variety or the other way around? Alternatively, should standard Arabic be the sole focus of instruction and colloquial Arabic is disregarded? Third, should one variety of the language be emphasized without discouraging the use of the other varieties?

In Israel, some schools teach colloquial or spoken

Arabic to students in grades four through six and standard Arabic starting from grade seven onwards. This shift from colloquial to standard Arabic forces the students to adjust their vocabulary and grammar knowledge. Brosh and Olshtain's (1995) examination of the effectiveness of this approach with 469 seventh graders in Tel Aviv revealed that teaching students colloquial Arabic before standard Arabic puts them at an advantage mainly in the area of listening because they rely on their previous experience with colloquial Arabic. On the other hand, students suffered in the areas of grammar and vocabulary because of the great differences between the two varieties of Arabic. Recommendations for smooth transition from colloquial to standard Arabic include dealing with the standard as a new language, that is, purposefully forgetting old rules and words and substituting them with new ones, making the lesson presentation more appealing (Brosh and Olshtain, 1995), combining both varieties of Arabic together may be more useful (Albatal, 1992 in Brosh and Olshtain, 1995), make the lesson presentation more appealing (Brosh and Olshtain, 1995). Teaching ESA<sup>1</sup> (Ryding, 1991) explain why the belief the younger the better is recently challenged. This was also supported by a study of (Ryding, 1991) may facilitate this dilemma because it is in the middle between colloquial Arabic and standard Arabic. It is believed to reduce the diglossic distance between the two varieties of the language (Brosh and Olshtain, 1995).

### Diglossia and reading

According to Rosenhouse and Shehadi (1986) in Feilston et al. (1993), parents, educators, and linguists blame the high reading difficulty rate in Arab schools on diglossia and as a result of this negative attitude, limit preschools' exposure to standard Arabic.

Feilston et al. (1993) examined the book-buying habits and reading patterns of 290 families of Arab kindergartners in Israel. Results revealed that only five of the families, that is, 1.8% of the sample actually read to their children from the books, whereas 58.2% of the sample orally recited stories to their children and the remaining 40% used books to read a story to their children but they did not read directly from the books. They actually told the child the story in colloquial Arabic and they just used the book to look at the pictures. Parents based their behaviour on the following assumptions: children do not understand standard Arabic and do not like being read to in standard Arabic. In conclusion, lack of exposure to standard Arabic in

kindergarten deprives children from the requisite knowledge and skills needed to develop proficiency in standard Arabic (Feilston et al., 1993).

In a similar vein, studies investigating the relationship between reading to children and children's standard language knowledge found that Hebrew-speaking kindergartners and first graders who listened to stories in standard Arabic without being allowed to revert to colloquial Arabic outperformed their peers in the control group on comprehension tasks, and used richer vocabulary when explaining a picture story, thus showing that when children's familiarity with standard Arabic within a story context directly extends to their active use of the language (Feilston et al., 1993; Ayari, 1996), even by grade two (Abu-Rabia, 2000) as "a person with more expertise has a larger knowledge base, and the large knowledge base allows that person to acquire even greater expertise at a faster rate (Stanovich, 1986: 381).

Rabia (2000) recommended that policy makers mandate the inclusion of standard Arabic in preschool education as part of the curriculum, and require teachers consistently use standard Arabic when teaching to develop students' reading skills and make the language more meaningful to them.

### Challenges of Arabic

Research on the challenges of the Arabic language is scarce. The Arabic language belongs to the Semitic family of languages. Hence, it does not share cognates with the English language, but rather, it includes noncognate words, thereby making vocabulary learning in Arabic profoundly challenging (Ryding and Bin Said, n.d.). Reading and writing Arabic occurs from right to left. It is made up of connected letters like cursive. Further, short vowels are not evident but they need to be pronounced when reading and long vowels are written in words. Arabic consists of phonemes that other languages such as English do not possess. These include "pharyngeals, uvulars, and velarized consonants" (Ryding and Bin Said, n.d., 3). Further, Arabic includes a complex morphological system. In this regard, diglossia is a concern that educational institutions and teachers need to take into consideration. According to Ryding and Bin Said (n.d.), the distance between colloquial Arabic and standard Arabic affects vocabulary more than grammar. For learners to achieve proficiency, they need to master at least three varieties of Arabic, namely standard Arabic, colloquial Arabic, and Educated Spoken Arabic (Brosh and Olshtain, 1995).

### Rationale of the study

Three critical factors motivated this research. First, no studies have empirically investigated the effect of diglossia on Lebanese children learning English as a

<sup>1</sup> Educated Spoken Arabic or ESA is a different variety of the Arabic language and is considered a middle variety of Arabic used by educated speakers. Other appellations are "urban cultivated Arabic," "middle Arabic," "pan-Arabic," "Inter-regional standard," "supra-dialectal L", "inter-Arabic", and "the elevated colloquial" (Ryding, 1991, p. 213).

second language. Second, students in Lebanon seem to have substandard picture vocabulary, even in their native language which is colloquial Arabic. This is particularly manifest during preschool and elementary years. Third, it has been the investigators' experience that preschool and elementary Lebanese and Arab students tend to do very poorly on standardized tests of vocabulary, sometimes failing to identify correctly basic body parts as thumbs and toes, and immediate objects in their environment. For example, they may refer to the *ibham* (thumb) as *isba'* (finger), or even *isba' kabeer* (big finger). This study mainly purports to determine a baseline to measure basic vocabulary acquisition in Arabic (native language) for Lebanese students attending kindergarten and early elementary school using US standards and hence determine how they fare in vocabulary development on an international scale. Upper elementary students are also tested and compared to their younger counterparts in terms of their vocabulary knowledge base to measure the long-term trends in vocabulary acquisition.

In this study, the researchers attempted to address the main hypothesis that diglossia may cause stunted vocabulary growth of Lebanese students in L1 [Arabic]. The second hypothesis is that this effect should be temporary as students' level of proficiency in Arabic vocabulary is expected to dramatically improve in the upper elementary cycle once students are more comfortable with classical Arabic.

## METHODOLOGY

### Research design

Two research designs were used in this investigation: (1) the correlational research design to describe relationships that naturally exist (Cohen et al., 2007; Fraenkel and Wallen, 2008) between the independent variable, diglossia, and its effect on the dependent variable, vocabulary acquisition and to determine "measures of association" (Cohen et al., 2007: 266); (2) the survey design based on three interviews with Arabic teachers of kindergarten and grades I and II to seek additional information and clarify misconceptions at a higher response rate than questionnaires in a setting based on trust and cooperation (Cohen et al., 2007) and a questionnaire addressed to the parents to obtain standardized information on the use of both varieties of the Arabic language at home on a "one-shot basis" (Morrison, 1993 in Cohen et al., 2007: 206).

### Sampling procedure

A sample of 100 students from a private school in Kfarshima, a working class suburb of Beirut, participated in this study. The students were randomly selected from kindergarten, grades one, two, four and five based on a two-stage random sampling technique, a combination of cluster random sampling and individual random sampling (Fraenkel and Wallen, 2008). Out of the kindergarten and elementary grades, 10 students were selected at random from each section (A and B), resulting in a total of 100 students.

As such, twenty students were selected from each grade level.

Each student's name in each class was written on a small piece of paper and mixed in a small container. The main investigator and the head of preschool or elementary entered each class. The head of each division introduced the researcher to students in every class and solicited participants in the research project. Student's enthusiastically volunteered, so 10 names were picked from the container. An equal gender ratio was maintained as much as possible, but in cases where one gender outnumbered the other, the selection mirrored the gender distribution in the class list. Gender distribution is detailed in Tables 1 and 2.

The mean age of the first set of subjects (kindergarten, 1 and 2) is 6 to 6 ± 0 to 11 years, and that of the second set (Grades 4 and 5) is 10 to 4 ± 0 to 7 years. For more details, refer to Appendix 1. The sample was diverse in terms of academic ability, and included regular-classroom pupils and those diagnosed with a learning disability. Arabic is the native language of all students and English is their second language.

### Ethics

Prior to data collection, verbal consent was obtained from the school principal to visit the preschool and elementary classrooms and test the students, send questionnaires to parents, and interview the three lower grade Arabic teachers. During class visits, informed consent from the students was secured through explaining to them in simple terms the testing procedure and the purpose of the study. Names of the students, teachers, and parents taking part in the study were withheld.

### Instruments

Instruments used to measure students' vocabulary knowledge consisted of the following:

#### *WJ-III Tests of Achievement: Picture Vocabulary Subtest (Normative Update)*

The Picture Vocabulary subset from the Woodcock Johnson-III Tests of Achievement was published in 2001 and was based on the US 2008 normative update. It is a measure of oral expression where the examinee is given a visual stimulus to identify orally (Woodcock et al., 2006). This test easily allows immediate comparisons between American and Lebanese students since all subjects in this investigation were evaluated based on the WJ-III norms.

The first 32 pictures were used to test the students' picture vocabulary knowledge. The latter were arranged in an increasing order of difficulty (Woodcock et al., 2006). Instructions for sample and practice items were given in English per the test instructions, then in colloquial Arabic as needed. The student had only one chance to say the correct answer; no prompts or hints were allowed except on the 12 items that included a query. Examinees were asked to answer in both languages; first in English, consistent with the test instructions, and then in Arabic (colloquial or standard, as they prefer) to measure their proficiency in their native language. To facilitate this process, a list of all the test items was prepared by the examiners based on translations from one of the most commonly used and respected English-Arabic dictionary, the *Al-Mawred*, by Mounir Baalbaki.

For the upper elementary students, some modifications to the standardization procedures were used due to time constraints, consistent with suggestions provided by Mather and Jaffe (2002). The sample item was the only one done orally. The examiner held prominently a colour copy page in front of each group of examinees and pointed to the sample picture. Then students were instructed to

**Table 1.** Gender distribution for group one.

	Grade					
	Kindergarten		One		Two	
Section	A	B	A	B	A	B
n	10	10	10	10	10	10
Male	6	5	5	6	6	6
Female	4	5	5	4	4	4

**Table 2.** Gender distribution for group two.

	Grade			
	Four		Five	
Section	A	B	A	B
n	10	10	10	10
Male	6	5	6	5
Female	4	5	4	5

**Table 3.** Questionnaires completed.

Grade	Number of sent questionnaires	Number of completed questionnaires	Percentage of completed questionnaires (%)
K A	10	8	80
K B	10	9	90
One A	10	10	100
One B	10	10	100
Two A	10	10	100
Two B	10	9	90
Total number of questionnaires	60	56	93.3

start answering in writing. Next to each picture two lines were drawn; one line for English marked by the word 'English' and the other for Arabic. While the students were responding, the examiner and two assistants checked on every student individually to guide them in the items that included a query.

### Questionnaire

A questionnaire was sent home with the preschool and lower elementary school children to give to their parents. It was made up of ten statements written in Arabic that solicited their input on their children vocabulary knowledge, their assumptions related to language acquisition, activities they engage in with their children, and language preference for their children. The questions tapped the following themes: use of specific vocabulary words in standard Arabic outside the school context, perception of difficulty of some vocabularies in standard Arabic, use of games to teach picture vocabulary, grade level children should start studying standard Arabic, and their children's preference for Arabic or English when studying picture vocabulary grade level best suited for their children to start studying standard Arabic. Questions included a five-point Likert-type scale that ranges from agree to strongly disagree, consistent with suggestions by Tseng et al. (2006).

In addition, parents were invited to participate in a raffle and win a valuable prize upon completing and returning the questionnaires without compromising their anonymity. This strategy proved successful as the completion rate was 93.3%. After all the questionnaires were returned, cards with parents' names were deposited in a box in the presence of the elementary school head teacher and the name of the winner was drawn from the box. The head of the elementary school volunteered to contact the lucky parent. Sixty questionnaires were sent to parents, 56 were returned completed (93.3% completion rate) (Table 3).

### Interview

Three interviews were conducted with the Arabic teachers in charge of preschool and elementary students. Each interview lasted around 20 to 30 min. The questions were extracted from the following themes: the degree of emphasis put on teaching various vocabularies, teaching strategies, varieties of Arabic used by the teacher, scope and sequence of various vocabulary words in the curriculum, variety of Arabic students use during learning tasks, various educational resources used to teach picture vocabulary words, difference between teaching styles of vocabulary in colloquial vs. standard Arabic, and their opinion of ESA as a

possible solution for the diglossia effect.

### Testing conditions

The different instruments were administered individually or in group in a familiar setting to breed comfort. For kindergartners, the two tests were administered in the quiet hallway next to their classrooms (the only available space) during class time. Different groups received the tests in a different order to minimize practice effect (Fraenkel and Wallen, 2008). After every answer, the students were provided with positive reinforcement to keep them motivated, but not with specific feedback on the accuracy of their responses. Students sat in rows in every other chair to prevent cheating.

### Internal validity

The researchers adopted two methods to minimize internal validity threats, namely "instrumentation", "order bias", "researcher bias" (Onwuegbuzie, 2000: 17), "subject characteristics", and "location" (Fraenkel and Wallen, 2008: 167). To that end, the interviews took place in a familiar setting. Also, tests were counterbalanced in order to prevent a subject characteristics threat and to minimize the risk of an order bias threat (Onwuegbuzie, 2000). To eliminate instrumentation threat, one data collector or examiner, the first author, was used throughout the study (Onwuegbuzie, 2000). To reduce researcher bias threat which happens if the researchers know their subjects, the examiner was not familiar with any of the students who were formally tested (Onwuegbuzie, 2000).

### Data analysis and interpretation

Data analysis and interpretation was based on both quantitative and qualitative measures. The questionnaires were analysed quantitatively, but results of the interviewees were reported in a combination of percentages and response themes.

Raw scores of the WJ-III Picture Vocabulary test were entered in the scoring software (2007 Normative Update) to obtain standard scores, grade, and age equivalent values which were further statistically analysed to obtain significance levels among various tests and groups.

For the quantitative part, statistical analysis was done using SPSS, version 18.0. Values are reported in the form of mean  $\pm$  SD for continuous variables and numbers or percentages for categorical variables.

Independent t-test was used to identify significant differences among the students' performance on each test and continuous variables such as age. Fischer's exact test was selected to assess the relationship between students' performance on each test and grade level. An error analysis would be provided at the end to identify indicative patterns of the data to answer the main hypothesis.

## RESULTS

### Picture vocabulary subtest

The mean standard score on the WJ-III Picture Vocabulary test in Arabic was  $82.4 \pm 9.1$ . The success rate on the Woodcock Johnson test in Arabic was 69%. For the purpose of data analysis, subjects were divided into two groups: Group One (kindergarten, grades

1 and 2) and Group Two (grades 4 and 5). There was no significant difference in the success rate (score more than 77.5%) in Arabic between the two groups (68.3% for group One vs. 70% for group 2,  $P > 0.1$ ). There was also a significant difference between the mean age and mean age equivalent on the Arabic test for Group Two ( $10-1 \pm 0-7$  vs.  $6-10 \pm 1-2$ ,  $d\text{-means} = 3.3$  years  $P < 0.0001$ ), but this difference is lower when comparing the mean age and mean age equivalent with respect to responses in Arabic for Group One ( $6-6 \pm 0-11$  vs.  $5-1 \pm 4-0$ ,  $d\text{-means} = 1.4$  years,  $P = 0.01$ ).

### Error analysis

The error analysis was done up to the 26th item in the test, that is, "file cabinet" which roughly corresponds to GE 5.7, the period during which data was collected.

The Picture Vocabulary test is designed in such a way that items move gradually from very easy to more difficult, with grade equivalent scores from preschool (GE < K.0) to university level (GE > 18.0). Detailed results are shown in Appendix 2.

In the Arabic test, only 7 words: flower, ball, bed, bird, star, clock and ruler were 100% correctly identified by this group of 4th and 5th graders. The remaining items had up to 97.5% accuracy rate. The pattern of responses was smooth up to item "waterfall" (GE 1.2), then a sharp drop to the pre-K level for "comb", followed by an upward and smooth trend with "luggage" (GE 2.5). Responses provided by the group varied from "brush", "hair brush" or a resigned "I don't know", although "comb" is a ubiquitous grooming article in these children's environment. The drop recurred with the item "grasshopper" (GE < K.0) which a staggering 62.5% of the group could identify, whereas "compass" (GE 3.6), had a 75% rate of correct responses. Grasshopper was referred as jumping ant, jumper, crunchy, insect, cockroach, bat, or its grossly mispronounced name.

Another surprise prevalent miscue was the pre-K item "light switch" which was not known to a whopping 82.5% of this group and was typically identified as "clicker", "lamp" or "lit". Some students thought that the picture represented a book, a bell or a click.

The item "giraffe", a preschool concept, was not only answered incorrectly by 7.5% of the respondents, but it was misidentified as 'pig' or 'deer', or by its English equivalent which would not be accepted as a correct answer in the Arabic part.

Finally, "beetle", a 2.1 grade equivalent item, was not known to 95% of the group, and was misidentified as inset, cockroach, bee, spider, ant, grasshopper, or fly.

### Questionnaire

Data collected from the questionnaires administered to the parents of students in Group One showed that parents believe that their children are more competent in

English than Arabic because Arabic is reported to be more difficult and less appealing.

Using pictures from books and games to teach the children vocabulary words were two moderately common ways used by parents to teach their children at home. Most parents indicated that their children prefer using English over Arabic when dealing with picture vocabulary words such as body parts or others. The sweeping majority agreed that their children do not fully understand words read to them by their parents in standard Arabic so parents have to 'translate' some words into colloquial Arabic.

As for the appropriate time to start learning standard Arabic, most parents chose kindergarten classes, implying that early exposure to this language variety helps children cope more effectively with the demands of Arabic in the first elementary cycle.

The majority of parents believed that English is more emphasized in school and more accepted in society, so they speak English at home with their children to help become more fluent, at the expense of making children less proficient with Arabic vocabulary words

## Interviews

Interviews with Arabic teachers targeted several themes:

1. Perception of the Arabic language: Interviewees agreed that standard Arabic is a demanding, dry and unappealing language to youngsters, whereas colloquial Arabic is the one students are familiar with and is the language they insist on hearing in class. Although both varieties differ by no more than 20%, many students have a negative attitude towards standard Arabic, link the latter to 'studying' and come to second grade with limited proficiency in standard Arabic. Most teachers believe that both forms of Arabic differ only in pronunciation rather than in form.

2. Use of Arabic variety and vocabulary instruction: A combination of both colloquial and standard Arabic is used in class. Usually, words are explained in colloquial Arabic followed by reinforcement in standard Arabic. Prompting and clarification always take place in colloquial Arabic. Mixing these varieties is deemed essential by teachers in the lower grades to facilitate comprehension. In such a way the teachers are in parallel with Albatal (1992) in Brosh and Olshtain (1995) where she states that combining both varieties of the language may be useful and colloquial Arabic acts as a facilitator to standard Arabic. When it comes to writing the words, standard Arabic is mainly used because colloquial Arabic is only for explanation. According to Ferguson (1971) in Brosh and Olshtain (1995), the problem of diglossia cannot be solved unless one variety of the language is taught or learned.

In upper grades, humour is used to encourage students to participate by exaggerating the intonation. Many

students use English to get the meaning of a word and are generally reluctant to refer to standard Arabic. Only one Arabic teacher translates some words to English against school policy but she does it in an effort to maximize comprehension. The preschool teacher pointed out that easy words do not usually need demonstration as meaning can be directly accessed, consistent with Fang and Xi-ya (2009) who recommended several word encounters and use of educational games selectively. Out of the three teachers, one stated that the students do not have preference for learning various picture vocabulary words and enjoy the presented activities, especially writing on the board. The following methods were used by teachers in presenting these activities.

**Instructional materials:** There is reliance on pictures in the three grades, consistent with Akbari's (2008) findings: picture cards, educational games, movies, pictures projected on the screen using the overhead projector, toys, drawing books, blackboard, small books, simulations, play dough, worksheets, projects, and show and tell. For example, when grade one students were studying the word *telephone* (هاتف), they brought to school plastic cups and thread to simulate phone use in class. All students reportedly thoroughly enjoy these hands-on activities. The Grade Two teacher uses a resource book full of pictures and exercises. As for teaching strategies, all three teachers stated that their strategies are based on interactive and cooperative learning.

**Vocabulary and the curriculum:** Vocabulary words are incorporated into the curriculum mainly through reading, pictures, letters, listening to tapes, and the exercise book. Emphasis on the different picture vocabulary words is through exercises and repetition.

**ESA:** Two out of the three teachers believed that the introduction of educated spoken Arabic or middle Arabic would benefit the students and be a solution to the problem of diglossia. In the literature, educated spoken Arabic is thought to reduce the diglossic distance between both dialects of the language (Brosh and Olshtain, 1995). Whereas one teacher said that this might or can be a solution to the problem of diglossia but she is not knowledgeable about this topic.

**Lebanese vs. US Students:** Perceptions varied from Lebanese students being on a par with Americans with respect to picture vocabulary being weaker than their US counterparts due to the complicated nature of Arabic and its grammar on the one hand, and the lax attitude of parents who only encourage their children to speak English at home. This is in keeping with Feitelson et al.

(1993) who linked early exposure to standard Arabic and enrichment in knowledge and skills needed to succeed in language tasks in upper grades.

## DISCUSSION

With respect to the hypothesis which deals with the adverse effect of diglossia on L1, it appears that both groups had equal levels of proficiency in Arabic. By upper elementary grades, students seem to demonstrate a stronger proficiency in their L1, albeit not meeting grade expectations. An unfortunate trend is hence identified as students grow older: the diglossia effect does not subside as students' Arabic proficiency continues to steadily decline and students wind up with inadequate proficiency in L1. This adds to the body of literature that argues that earlier is not necessarily better (Miralpeix, 2007).

The error analysis of the older group showed an unsmooth progression of vocabulary knowledge coupled with generalized weakness in Arabic vocabulary, lack of mastery of basic concepts, and an alarming ignorance of such basic preschool vocabularies as "light switch" and assignment of infantile names to animals or things.

There is a multitude of factors behind the disparity in vocabulary acquisition between the Lebanese children in Arabic and American peers in the US norm in their native English on the one hand, and with respect to the students' overall weakness in their native Arabic, regardless of its variety on the other hand. Chief among them are the challenging nature of Arabic particularly for youngsters, students' negative attitude towards standard Arabic, students' insufficient exposure to standard Arabic, the inadequate teaching strategies and instructional materials, and the diglossia effect which underlie most of the afore-mentioned factors and has detrimental effects on Arabic vocabulary acquisition in Lebanon. These findings are evocative of the linguistic realities that also bedevil other Arabic speaking communities (Feitelson et al., 1993).

Finally, since the negative impact of diglossia and the resulting vocabulary lag were not evident to some teachers involved in this study, it could be easily inferred that in Lebanon, few educators are cognizant of this deficiency and no sense of urgency to address this disparity.

## Conclusion

This study hypothesized that young elementary students in Lebanon seem to have a poorer picture vocabulary repertoire in their L1 for a host of reasons.

What is particularly worrisome is naturally L1, even in a country where bilingualism is highly emphasised; learning Arabic vocabulary is riddled with several challenges. One of these is diglossia which seems to impede vocabulary development in Arabic, thus explaining why Lebanese

students did worse in Arabic than the American norming group.

While this hypothesis was verified, the second one, claiming that the negative effect of diglossia disappears with time, was not validated, at least not by upper elementary grades for this sample of kindergarten and elementary school bilingual students attending a working class private school in a suburb of Beirut.

In addition, parents and Arabic teachers had several opinions about vocabulary acquisition and diglossia. Most of them were aware of the challenges of standard Arabic and recognize the students' struggle with standard Arabic and their preference for English. Teachers do their best to enhance vocabulary instruction in Arabic by using interactive and stimulating strategies but with mixed results. Unfortunately, not all parties concerned were aware of the deficiencies in the children's overall language development.

There are several factors behind young Lebanese students' deficient vocabulary. Our study provides evidence that the strategies and approaches to teaching vocabulary used in our schools may be partially culprit as they are not sufficiently elaborate, well thought out or research based. Second, in the US, albeit a multicultural and multilingual society, the effect of diglossia is probably less evident or pronounced than it is in Arabic which continues to be a main challenge to vocabulary acquisition in Arabic as documented by several studies. Ayari (1996) attributes the high illiteracy rate prevalent in the Arab world to diglossia as it seems to severely impede academic achievement. As for the long-term effect, there clearly must be a number of confounding variables besides diglossia which further impair language development among regular classroom students. This study showed that there is a decline in vocabulary acquisition of the students in Arabic as they reach upper elementary grades as manifested by their inadequate knowledge of picture vocabulary. Finally, Lebanese educators and curriculum designers should come to the realization that there is an alarming deficit in our elementary students' vocabulary repertoire which would undermine adequate development of literacy skills in their L1. This trend would most certainly impede adequate acquisition of a second or third language as is required in the Lebanese educational system.

## IMPLICATIONS AND RECOMMENDATIONS

The implications of this study on Arabic language acquisition appear to be grave and call for a complete overhaul of the preschool and Arabic language instruction nationwide. Our schools are spawning a whole generation of students who are ill equipped to meet the challenges of the Arabic language, and who have inadequate communication skills, both orally and in writing, and finally who have at best mixed feelings about their own language which embodies their cultural identity.

Educators should be aware of the adverse effect of diglossia on vocabulary development, and recognize that there needs to be a reform in the Arabic language instruction in the school system, especially with respect to Arabic.

The following strategies culled with the literature are highly recommended:

1. Placing more emphasis in the curriculum on standard Arabic.
2. Creating interesting resources (visually appealing, current topics, engaging lesson presentation) and role models who communicate in standard Arabic (funny characters, action heroes, clowns, cartoon characters, celebrities, entertainers, upstanding community members, etc.).
3. Raising awareness among parents about the drawbacks of limiting their children's exposure to standard Arabic during early childhood.
4. Encouraging parents to read to their children in standard Arabic, especially in preschool.
5. Ensuring that teachers need are fully cognizant that colloquial and standard Arabic varieties do not easily lend themselves to image-schema-based instruction because many words in standard Arabic do not have cognates in the colloquial variety, and hence relying on instant translation may be an impediment and is certainly an impractical teaching strategy.
6. Encouraging teachers to attempt the use of ESA and gauge its benefits on their reluctant standard Arabic learners.
7. Placing focus on elaboration and deep processing using a variety of active and cooperative learning strategies (simulations, role-playing, demonstrations, show-and-tell, drawing, etc.) rather than mere repetition of words.

Several of the research-based strategies outlined in the literature review may be effectively used with our target population. Of particular interest are: use of image-schema-based instruction (Morimoto and Loewen, 2007), use of explicit tasks for learners to be able to link both form and meaning of words (Webb, 2007), carefully planned fill-in-the-blank exercises (Folse, 2006), task-based-language-teaching (TBLT) with the focus on forms component (De La Fuente, 2006) and a collaborative learning approach (Kim, 2008), word games, artistic activities, computer-assisted instruction (Weatherford, 1990 in Akbari, 2008), use of pictures (Akbari, 2008), flashcards (Shewell, 2009), semantic mapping, relating new information to already stored information and word manipulation (Fang and Xi-ya, 2009).

As for younger students, the following strategies are favoured: frequent storybook interactive aloud-reading (Robbins and Ehri, 1994; Elley, 1989; Senechal et al., 1995; Roberts, 2008) and focus on productive vocabulary knowledge (Vidal, 2003).

This study is an eye-opener as no known similar

studies were conducted on vocabulary development of Lebanese students. Most of the studies done on diglossia and Arabic are mainly related to reading and not vocabulary.

### Limitations of the study

There are two main limitations for the study. First, the students were selected from a single private school, a procedure which might introduce a selection bias. Second, the findings of this study are not generalizable to the entire population without random sampling from all schools, students and teachers across Lebanon.

### Further research

More comparative research is needed on the specific linguistic deficiencies of younger students with the various subcategories of language (basic concepts of animals, fruits, vegetables, body parts, etc.) between Lebanese students and their Western counterparts. Also, the effects of diglossia on Arabic vocabulary acquisition in the long run, namely the intermediate and high school level, need to be further investigated.

By developing new, interactive, and entertaining Arabic vocabulary strategies, the students will be more motivated to study and accept the language which will improve their vocabulary acquisition. Curriculum developers, educators, and parents need to be convinced through a more comprehensive and rigorous body of research identifying the serious deficiencies in students' vocabulary acquisition, and equipped with evidenced-based curriculum content, language programs, and teaching strategies. Therefore, studies targeting gaps and deficiencies in language curricula, instructional materials and teaching strategies across the Arab world are urgently called for and be given priority in all ministries of education.

### REFERENCES

- Abu-Rabia S (2000). Effects of exposure to literary Arabic on reading comprehension in a diglossic situation. *Reading and Writing: Interdiscip. J.*, 13: 147-157.
- Akbari O (2008). Teaching vocabulary items through contextualization and picture to elementary Iranian EFL students. *Asian EFL J.*, 10(3): 53-77.
- Ayari S (1996). Diglossia and illiteracy in the Arab world. *Language, Cult. Curr.*, 9(3): 243-253.
- Broady E (2008). Fragmentation and consolidation: recent articles on vocabulary acquisition. *Lang. Learn. J.*, 36(2): 259-265.
- Brosh H, Olshtain E (1995). Language skills and the curriculum of a diglossic Language. *Foreign Lang. Ann.*, 28(2): 247-60.
- Cohen L, Manion L, Morrison K (2007). *Research methods in education* (6<sup>th</sup> ed). London: Routledge.
- De La Fuente MJ (2006). Classroom L2 vocabulary acquisition: investigating the role of pedagogical tasks and form-focused instruction. *Lang. Teach. Res.*, 0(3): 263-295.
- Elley WB (1989). Vocabulary acquisition from listening to stories. *Read.*

- Res. Quart., 24(2): 174-187.
- Fang Z, Xi-ya D (2009). Critical analysis of current lexical presentation and pedagogic considerations. *Sino-US English Teach.*, 6(2): 9-13.
- Feilston D, Goldstein Z, Iraqi J, Share DL (1993). Effects of listening to story reading on aspects of literacy acquisition in a diglossic situation. *Read. Res. Quart.*, 28, 71-79.
- Folse KS (2006). The effect of type of written exercises on L2 vocabulary retention. *TESOL Quart.*, 40(2): 273-293.
- Fraenkel RJ, Wallen EN (2008). How to design and evaluate research in education. New York: Mc Graw-Hill. p. 167.
- Kim Y (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *Mod. Lang. J.*, 92(1): 114-130.
- Maamouri M (1998). Language education and human development: Arabic diglossia and its impact on the quality of education in the Arab region. Paper presented at the Mediterranean development forum, Philadelphia. (ERIC Document Reproduction Services No. ED456669)
- Mather N, Jaffe L (2002). *Woodcock-Johnson III: Reports, recommendations, and strategies*. New York: John Wiley & Sons.
- Mei-fang L (2008). Teachers' role in vocabulary teaching: strategies for vocabulary teaching. *Sino-US English Teach.*, 5(8): 1-6.
- Min H (2008). EFL vocabulary acquisition and retention: reading plus vocabulary enhancement activities and narrow reading. *Lang. Learn.*, 58(1): 73-115.
- Miralpeix I (2007). Lexical knowledge in instructed language learning: the effects of age and exposure. *Int. J. English Stud.*, 7(2): 61-83.
- Morimoto S, Loewen S (2007). A comparison of the effects of image-schema-based instruction and translation-based instruction on the acquisition of L2 polysemous words. *Lang. Teach. Res.*, 11(3): 347-372.
- Onwuegbuzie AJ (2000). Expanding the framework of internal and external validity in quantitative research. Paper presented at the annual meeting of the association for the advancement of educational research. (Eric Document Reproduction Services No. ED448205).
- Penno JF, Wilkinson IAG, Moore DW (2002). Vocabulary acquisition from teacher explanation and repeated listening to stories: do they overcome the Matthew effect? *J. Edu. Psychol.*, 94(1): 23-33.
- Robbins C, Ehri LC (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *J. Edu. Psychol.*, 86(1): 54-64.
- Roberts TA (2008). Home storybook reading in primary or second language with preschool children: evidence of equal effectiveness for second-language vocabulary acquisition. *Read. Res. Quart.*, 43(2): 103-130.
- Rott S (2007). The effect of frequency of input-enhancements on word learning and text comprehension. *Lang. Learn.*, 57(2): 165-199.
- Ryding KC, Bin Said SQ (n.d.). Some key issues in learning Arabic as a foreign language. Retrieved May 4, 2010, from Georgetown University, Department of Arabic and Islamic Studies Web site: <http://www1.georgetown.edu/departments/arabic/about/issues/>
- Ryding KC (1991). Proficiency despite diglossia: a new approach for Arabic. *Mod. Lang. J.*, 75(2): 212-218.
- Saiegh-Haddad E (2003). Linguistic distance and initial reading acquisition: the case of Arabic diglossia. *Appl. Psycholinguist.*, 24: 431-451.
- Senechal M, Thomas E, Monker J (1995). Individual differences in 4-year-old children's acquisition of vocabulary during storybook reading. *J. Educ. Psychol.*, 87(2): 218-229.
- Shewell J. (2009). Vocabulary acquisition and teaching. *TESOL Arabia Perspect.*, 16(3): 41-43.
- Stanovich K E (1986). Matthew effects in reading: some consequences of individual differences in the acquisition of literacy. *Read. Res. Quart.*, 21(4): 360-407.
- Swanson EA, Howerton D (2007). Influence vocabulary acquisition for English language learners. *Interv. School Clin.*, 42(5): 290-294.
- Tseng W, Dörnyei Z, Schmitt N (2006). A new approach to assessing strategic learning: the case of self-regulation in vocabulary acquisition. *Appl. Linguist.*, 27(1): 78-102.
- Versteegh K (2001). *The Arabic language*. Edinburgh: Edinburgh University Press.
- Vidal K (2003). Academic listening: a source of vocabulary acquisition? *Appl. Linguist.*, 24(1): 56-89.
- Webb S (2007). Learning word pairs and glossed sentences: the effects of a single context on vocabulary knowledge. *Lang. Teach. Res.*, 11(1): 63-81.
- Woodcock RW, McGrew K S, Mather N, Schrank F A (2006). *Woodcock-Johnson® III*. IL: Riverside Publishing.

## Appendix 1. Sample characteristics.

Characteristic	Value
Mean age	7-11 ± 1-11
Mean standard score (Arabic)	82.4 ± 9.1
Success rate (Arabic)	69%
Mean age group one (grades Kindergarten II, 1, and 2)	6-6 ± 0-11
Mean age group two (grades 4 and 5)	10-4 ± 0-7

## Appendix 2. Error Analysis of the picture vocabulary test for grades four and five Arabic.

Picture vocabulary	Wrong answers provided by students, along with their translation in English	Percentages (%)	GE
Turtle (سلحفاة)	frog (ضفدع)	5	<K.0
Corn (ذرة أو عرنوس)	maïs (مبييس) (French for corn)	2.5	<K.0
Watermelon (بطيخ)	don't know (لا إجابة)	2.5	<K.0
Zipper (سحاب)	don't know (لا إجابة)	5	<K.0
Giraffe (زرافة)	pig (خنزير), deer (غزال), giraffe (جيرااف)	7.5	<K.0
Grasshopper (قبيوط أو جرادة)	unclear (حرمود), ant (نملة), jumper (نطناط), ant jumping high (نملة تقفز عالياً), crunchy (قمرمش), insect (حشرة), bat (صرصور), unclear (أوبيط), cockroach (صرصور)	62.5	<K.0
Comb (مشط)	hair brush (فرشاية الشعر), brush (فرشاية)	15	<K.0
Whistle (صفيرة)	don't know (لا إجابة)	2.5	<K.0
Light switch on/off زر كهرباء أو زر	button (زر - كبسة - زر), lamp (مصباح), button switch (كبسة زر), lit (مضوا), book (كتاب), bell (جرس), clicker (فقسة), light (تستعمل للإطفاء الضوء), machines (للاة), used to turn off the light (تستعمل للإطفاء الضوء), medicine (دواء), bulb (لمبة), electric light (إشغال الضوء), door (باب), buttons (أزرار), electricity (كهرباء), turn on light (إشغال الضوء), electricity circuit breaker (دجنتار الكهرباء)	82.5	K.3
Waterfall (شلال)	falling water (مياه تنزل), sea (بحر), spring (نبع), mountain (جبل)	12.5	1.2
Binoculars (منظر أو ناضور)	don't know (لا إجابة)	5	1.6
Beetle (خنفساء أو زيز)	insect (حشرة), cockroach (صرصور), bee (نحلة), spider (عنكبوت), ant (نملة), grasshopper (أبوط), fly (دبانة)	95	2.1
Luggage (حقائب سفر أو شنط)	wallet (محفظة), wallets (محاظف), suitcases (شناتي), handbag (جزدان)	20	2.5
Ironing board (طاولة الكي- كوي- جشش كوي)	iron (بنك الكوي), iron bench (بنك الكوي), ironing (كوي), table (طاولة), fixed iron (تثبت مكواية), (مكوى - مكواية)	72.5	3.1
Compass (بيكال أو بوصلة)	clock (ساعة), stock exchange (بورصة), clock for directions (ساعة للاتجاهات)	25	3.6
Pliers (كماشة أو بنسا)	screwdriver (ملقط), tongs (ملقط)	65	4.3
Fire extinguisher (مطفئة الحريق أو طفاية)	extinguisher (طفاية), Fire extinguishing (اطفاء الحرائق/النار), against the fire (ضد الحريق), water (ماء), firefighter truck (إطفائية), to extinguish the fire water is used (للاطفاء النار), fire extinguisher machine (آلة للاطفاء), bottle (قنبنة), fire extinguisher can (تنكة للاطفاء), blower (منفخ), oil (زيت)	67.5	4.9
File cabinet (خزانت ملفات)	drawer (جارور), cabinet (خزانة), shelf (رف), metal cabinet (خزانة حديد), paper cabinet (خزانت ورق), files (ملفات), book cabinet (خزانة كتب)	92.5	5.7

GE= grade equivalent.