

**Bar-Ilan University**

**The Impact of Diglossia on the Development of Phonological and  
Morphological Awareness and on the Ability to Read Vowelized and  
Nonvowelized Arabic Words: A Comparison Between Medium-High  
SES and Low SES**

**ABEER SHAHBARI KASSEM**

School of Education

Ph.D. Thesis

Submitted to the Senate of Bar-Ilan University

Ramat-Gan Israel

2017

## **ABSTRACT**

The uniqueness of the Arab language is due to its diglossic condition; the existence of Spoken Arabic alongside Standard Arabic, with a remarkable linguistic distance between them across all language domains, including phonological, morphological, lexical, and syntactic. This linguistic condition is expected to constitute a challenge to Arabic speakers while in the process of developing phonological and morphological awareness and to their reading ability in Arabic. From the beginning of the first grade, Arab speakers are required to develop linguistic awareness and reading in a standard and for language structures that may not be at all familiar to them.

The purpose of the current study was to examine the effect of Arabic diglossia on the development of linguistic awareness (phonological and morphological awareness), and the development of accuracy and reading speed in Arabic (vowelized and nonvowelized words and vowelized nonwords) among a wide age range of Arabic speakers (second, fourth, sixth, eighth, and tenth grade), from the beginning of primary school till almost the end of high school, and in two different socioeconomic background groups (medium-high and low). Furthermore, the study set out to examine the relationship between phonological and morphological awareness and the accuracy and reading speed of words (vowelized, nonvowelized, and vowelized nonwords), both in spoken and standard Arabic, and in relation to socioeconomic background (medium-high and low SES).

Two hundred Arabic speaking students from the city of Nazareth, speaking a single dialect (100 boys and 100 girls), 100 students from a medium-high SES and 100 from

a low SES, from 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grades, participated in the study. The participants were chosen according to the school cultivation measure as expressed by reports from the Ministry of Education. The low SES group was chosen from four public schools in which cultivation measure is defined as low (8.50-8.81). On the other hand, the medium-high group of students was recruited from two private schools in Nazareth in which the cultivation measure is defined as high (4.24-4.40). The SES data (parents' education, parents' work and home-literacy environment) of the participants were also gathered from interviews with the various schools' head-principals and counselors, and from information collected through parents' questionnaires for tapping the background variables of the home literacy environment.

In order to investigate the impact of diglossia on the development of linguistic awareness and reading ability in Arabic, linguistic awareness and reading tests in Spoken and Standard Arabic separately were developed. Every test made use of lexical, phonological, and morphological structures that characterize each language variety. The measures that were devised for this study examined phonological awareness (Phoneme segmentation and phoneme deletion), morphological awareness (analogies and sentence completion for inflection and derivation), and word reading accuracy and speed (vowelized, nonvowelized and vowelized nonwords).

The findings of the current research confirm the study hypotheses, which refer to the effect of diglossia on the development of linguistic awareness and reading ability in Standard Arabic; the findings suggest that among both children (medium-high and low SES), diglossia had a negative influence and it was associated with lower levels of linguistic awareness (phonological and morphological awareness) as well as accuracy and speed of word reading in Standard Arabic. Moreover, its impact on the low SES children was greater than that on the medium-high SES.

As to the effect of diglossia on the development of phonological awareness, the results showed that both in Spoken and Standard Arabic, in both medium-high SES and low SES, children displayed lower levels of phonological awareness and a slower rate of development in Standard Arabic compared to Spoken Arabic, and a slower developmental rate among low SES compared to medium-high SES. Participants from the low SES could not close the gap between Spoken and Standard Arabic for the two tasks –Phoneme segmentation and phoneme deletion. Nevertheless, the medium-high SES children succeeded to close the gap between Standard and Spoken Arabic by 8<sup>th</sup> grade for the phoneme segmentation task and by the 6<sup>th</sup> grade for the phoneme deletion task.

As for the influence of diglossia on morphological awareness development both in Spoken and Standard Arabic, the participants from both socioeconomic backgrounds presented a slower developmental pattern for morphological awareness in Standard as opposed to Spoken Arabic, while the low SES children presented a different developmental pattern and a slower rate of development compared to children from medium-high SES. The participants from the low SES were unable to close gap between Standard and Spoken Arabic for the two analogy tasks, both by inflection and derivation. The medium-high participants, however, succeeded to close the gap between the Standard and Spoken Arabic by the 8<sup>th</sup> grade for the two analogy tasks, both for inflection and derivation. Furthermore, the findings show that children from both SES groups (medium-high and low SES) were not able to close the gap between Spoken and Standard Arabic for the two sentence completion tasks (inflection and derivation), yet the intensity of the gap was larger in the low SES than in the medium-high SES.

As to the impact of diglossia on the development of word reading accuracy and speed (vowelized, nonvowelized and vowelized nonwords) in Spoken and Standard Arabic for both SES groups, the children presented a slower developmental pattern for reading Standard as opposed to Spoken Arabic, while participants from the low SES presented a different developmental pattern, and a slower developmental rate than those from medium-high SES. Children from the low SES could not close the gap between Standard and Spoken Arabic in relation to the accuracy and speed of vowelized word reading tasks. On the other hand, medium-high SES children succeeded in closing the gap between Standard and Spoken Arabic by the 8<sup>th</sup> grade for vowelized word reading, and by 10<sup>th</sup> grade for vowelized word reading speed. Additionally, the medium-high SES were able to close the gap between the Standard and Spoken Arabic for the two tasks – accuracy of nonvowelized word reading by the 8<sup>th</sup> grade, while on nonvowelized word reading speed they failed to close the gap between the Standard and Spoken Arabic in both groups. The intensity of the gap was larger in the low SES than in the medium-high SES. Moreover, the findings suggest that children from both SES groups (medium-high and low SES) were not able to close the gap between Standard and Spoken Arabic for the two tasks – accuracy and reading speed of nonwords, where the gap in both SES groups was persistent, although the intensity of the gap was greater in the low SES as opposed to the medium-high SES.

As to the relation between the phonological and morphological awareness and word reading accuracy and speed (vowelized and nonvowelized and vowelized nonwords) both in Spoken and Standard Arabic, and in relation to the differences between the two SES groups (medium-high and low), it was found that phonological and morphological awareness both in Spoken and Standard Arabic made a significant contribution to the development of word reading accuracy and speed measures (vowelized and

nonvowelized and vowelized nonwords) in Spoken and Standard Arabic. Moreover, It was also found that both age and SES impacted the development of word reading accuracy and speed (vowelized, nonvowelized and vowelized nonwords) in Spoken and Standard Arabic. i.e., with growing age and as the level of SES got higher, so does reading ability got higher. Additionally, a relatively separate contribution of both phonological awareness and morphological awareness in Spoken Arabic was found for predicting word reading accuracy and word reading speed (vowelized and nonvowelized and vowelized nonwords) in Standard Arabic. Moreover, it was found that the morphological awareness in spoken Arabic contributed significantly to the development of word reading speed (vowelized and nonvowelized and vowelized nonwords) in Standard Arabic. These findings attest to the importance of linguistic awareness in Spoken Arabic for the development of reading ability in Standard Arabic.

The current study presents a new, comprehensive, rich and systematic body of knowledge that has never before been examined the way it has been here. The study presents a detailed developmental map of phonological and morphological awareness and of word reading ability (vowelized and nonvowelized and vowelized nonwords) in Spoken and Standard Arabic, from the beginning of primary school (2<sup>nd</sup> grade) through to almost the end of high school (10<sup>th</sup> grade), and in relation to socioeconomic background differences. This type of map does not exist in the Arabic language. In addition, the study contributes knowledge to the effect of phonological and morphological awareness in the Spoken and Standard Arabic on word reading (vowelized and nonvowelized and vowelized nonwords) ability development in Standard Arabic. Furthermore, for the first time ever in Arabic the research characterizes the exact location of children from low SES on the linguistic and reading development, in relation to their counterparts from medium-high SES and specifically

diverts attention to the nature of difficulties and special challenges this students cope with while learning to read in Standard Arabic.

The findings of this study suggest that diglossia is a factor that hinders the development of linguistic awareness needed for reading ability development, while its impact is larger among low SES as opposed to medium-high SES. The two factors: diglossia and SES seem to affect the linguistic awareness and reading ability development throughout all stages of development. Hence the educational implications in this context couch in the need for devising intervention programs for Arabic speakers. In these intervention programs, there is a need to emphasize two things: A). Bridging the phonological and morphological gap between Spoken and Standard Arabic along with a focus on beginning of reading in primary grades using lexical items that are common in both language varieties and have identical lexical, phonological and morphological forms in Spoken and Standard Arabic. It is also important that such programs be compatible with the norms expected at the different developmental ages and to address the phonological and morphological gaps between Spoken and Standard Arabic; B) It is important to identify students from low SES and invest efforts in training them and instructing them with reading skills, in order to neutralize the SES impact on the linguistic awareness development. It is recommended that this kind of intervention be made at the beginning of the linguistic awareness and literacy skills development process, at a time when the children are still at kindergarten, in order for them to have a strong beginning.

Future studies should examine the effect of preparing intervention programs that address bridging the phonological and morphological gaps between Spoken and Standard Arabic on linguistic awareness and on the development of reading ability. Also, there is a need to test the impact of training in linguistic awareness in Spoken and

Standard Arabic in low SES children in reducing the gaps between students from different socioeconomic background. On top of that, future studies should follow up the diglossia effects on the linguistic awareness and word reading ability beyond the tenth grad.