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**Are Jordanian Students Phonemically Aware?
A Descriptive Study**

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Abstract

When the Ministry of Education in Jordan set its goals behind introducing English language as early as from the first grade, their expectations for their EFL learners were to show understanding and use of simple words through different activities; a goal that heavily depends on developing phonological awareness. This study explored 44 Jordanian first graders' possession of phonological awareness. The Yopp Singer Test (1995) was administered in April and May, 2010. Descriptive statistics showed emerging awareness. Calls for intervention programs and recommendations were presented accordingly.

Key words: phonemic awareness, Arabic learners of English, reading, phonological awareness.

هل الطلبة الأردنيون لديهم الوعي الصوتي: دراسة وصفية

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الملخص

لما حددت وزارة التربية والتعليم الأردنية أهدافها من جعل اللغة الإنجليزية مادة دراسية ابتداء من الصف الأول الابتدائي كانت التوقعات هي أن يظهر الطالب المقدرة على الفهم والاستيعاب واستخدام الكلمات البسيطة من خلال الأنشطة المتنوعة و هذا يعتمد بشكل كبير على الوعي الصوتي لدى الطلبة. فجاءت هذه الدراسة الوصفية تستكشف الوعي الصوتي لدى ٤٤ من طلبة الصف الأول الابتدائي مستخدمة اختبار ياب-سنجر (١٩٩٥). ولقد أظهرت نتائج الدراسة نموا في هذا المجال (الوعي الصوتي) لدى عينة الدراسة ودعت كذلك إلى عدة توصيات.

الكلمات المفتاحية: الوعي الصوتي، اللغة العربية، القراءة، متعلمو الإنجليزية الناطقون بالعربية.

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Introduction

Different researchers have developed different perspectives regarding phonological awareness. For some researchers, it refers to the consciousness of the sounds of the language including syllables, onsets and rimes, and phonemes (Gillet, Temple & Crawford, 2004; Layton, Deeny, & Tall, 1998; Stanovich, 1993). According to Anthony & Francis (2005), phonological awareness encompasses phoneme awareness, the ability to manipulate phonemes, and rudimentary phonological skills such as judging whether two words rhyme.

For Chard & Dickson (1999), manipulating phonological awareness means classifying the phonological awareness activities in terms of complexity into three levels: Activities such as initial rhymes, rhyming songs as well as sentence segmentation that demonstrate awareness that speech can be broken down into individual words fall within the least complex level. At the medium level are activities related to segmenting words into syllables, blending syllables into words, segmenting words into onsets and rimes and blending onsets and rimes into words. Finally, the most sophisticated level of phonological awareness is phonemic awareness; the ability to manipulate phonemes either by segmenting, blending, or changing individual phonemes within words to create new words.

Anthony & Francis (2005) looked at phonological awareness through a developmental sequence; the movement from the recognition of properties

to the capacity to produce examples. Thus, at one stage one can nominate which pair of words rhymes when presented orally; at another stage one can produce examples. Anthony and Francis suggest that children become increasingly sensitive to smaller and smaller parts of words as they grow older; children (a) detect or manipulate syllables before they can detect or manipulate onsets and rimes; (b) detect or manipulate onsets and rimes before they can detect or manipulate individual phonemes within intra-syllabic word units; (c) detect similar and dissimilar sounding words before they can manipulate sounds within words; and (d) generally blend phonological information before they can segment phonological information; and finally, (e) children refine phonological awareness skills they have already acquired.

Although profound in the field of literacy, phonological awareness has only lately gained the due attention. Burgeoning discussions over the decades of the past century have addressed the relationship between the awareness of the sounds of the language and the ability to read. During the 1940s some psychologists noted that children with reading disabilities could neither segment nor blend the sounds of a spoken word. Psychological research intensified in the 1960s and 1970s highlighting the important relationship between the awareness of sounds and learning to read (Ehri, 1989; Goswami, 2000; Olofsson & Niederose, 1999). In the U.S. the National Reading Panel report to the Congress (1998) strongly advocates helping children hear sounds in words, know the letters of the alphabet, and know letter-to-sound correspondences in order to be able to read words (Snow, Burns, & Griffin, 1998).

Some researchers, in fact, firmly stated that children with difficulty in detecting or manipulating sounds in words will struggle with learning to read (Anthony & Francis, 2005; Hatcher et al., 2004; Share, 1995; Snowling, 1998; Vellutino, Fletcher, Snowling & Scanlon, 2004). Such firm positions justify drawing a legitimate association between reading development and phonological awareness. In other words, children who lack phonemic awareness are more likely to suffer lately of poor reading. Should this suggest anything, it is the necessity to assess then enhance children's phonological skills in order to become better readers.

Problem of the Study

Being a foreign language, learning English may pose extra burden to Arab EFL learners. In fact, researchers concluded that Arab EFL learners may experience different types of problems and difficulties at the word level while reading English texts (Brown & Hyness, 1985; Ryan & Meara, 1991). To be more specific, Fender (2003) states that Arab EFL learners seem to have difficulty with prelexical word recognition processes (i.e. the ability to identify the printed form of a word) or lexical item in order to activate semantic, syntactic, and pragmatic associations. According to researchers (Siedenberg, 1992; Stanovich, 1993; Vellutino et al., 1994), these processes operate at a prelexical stage and are necessary to identify and activate a word or a lexical item; knowledge of these processes is deemed crucial for second language reading fluency and comprehension (Eskey, 1988; MacDonald, 2000; Perfetti, 1985). Described as polyphonic and polygraphic, learning English has its own challenges for speakers of other languages.

Locally, the Ministry of Education in Jordan, following His Majesty King Abdullah II's 1999 National Initiative, started teaching English simultaneously with L1 as mandatory right from the first grade in order to enable Jordanian first graders to achieve proficiency in English basic skills. The 2006 English Language National Team in Jordan expected first graders to "read English from left to right and show understanding of learned simple words about names, objects, actions, and numbers when reading through different activities." Apparently, Jordanian children face difficulties learning English, and in reading the majority could be impaired.

Importance of the Study

It is necessary that first graders reach a level in phonemic awareness enough to enable them to become better readers. This study came to investigate whether Jordanian beginning learners obtain the required knowledge and skills in the area of language sounds that set them off for reading English. This study earns its importance for being, according to the researchers' best knowledge, the first study to investigate the phonological awareness of the Jordanian children learning English.

Questions of the Study

The question leading this study is: are EFL Jordanian first graders phonemically aware?

Review of Related Literature

In spite of the adequate command they show over vocabulary, syntax, and language sounds (Singer, 1979), phonemic awareness is the part that most kindergartners are missing the most (Yopp (1995). It is evident that literature supports the key role that phonological skills play in bringing up a reader. According to Yopp (1992) whether a child is phonemically aware or not is crucially important since it clearly indicates if children do understand and can manipulate the smallest sounds of their language. Developing phonological awareness skills might provide learners with more advantages to become better readers. Hence, assessing phonemic awareness and uncovering any potential delays in the right stages might save learners from becoming poor readers.

Stanovich (1994) and in support of the above argument strongly claims that phonemic awareness prudently predicts reading achievement even “better than anything else that we know of, including IQ” (p. 284). Such stance for Stanovich conveys several implications, most important of which is the possibility that teachers’ both ignorance and lack of knowledge of the importance of phonological awareness could be one of the main reasons behind children’s poor performance in reading. Early or late exposure to phonemic awareness activities might be of great relevance too. Consequently, it is fairly legitimate to ask what might happen to children who are phonemically disadvantaged and to know when children should be exposed to phonological awareness. This becomes even paramount to the Jordanian context due to the fact that English is a foreign language; a tongue where learners only get exposed to inside official learning settings.

According to Olofsson & Niederose (1999), phonemic awareness typically begins during the preschool years, when children with normal hearing can attend to ambient sounds by naming, imitating and describing. Hempenstall, (1997) suggests that phonological awareness begins with consciousness of words as a unit of analysis, then proceeds to the awareness that words can

share certain ending properties that we call rhyme; to an awareness that words can be decomposed into syllables, then (possibly though not definitely) more finely into sub-syllabic units called onsets and rimes, and then (and most importantly for reading) into awareness of individual phonemes, the smallest units of sound analysis.

Perfetti and colleagues (1987) carried out a longitudinal study to explore the relationship between phonological awareness and learning to read. The study included 82 children and followed their learning-to-read process over one year. During their learning, children were tested three times in tapping and deletion. Results revealed that deletion task had a reciprocal relationship with gains in reading.

Abu-Rabiaa (1995) carried out a study to examine the relationships among reading ability, phonological, semantic, orthographic and syntactic skills in Arabic.. Tests on working memory, visual, oral close, phonological, word recognition, spelling, orthographic, and word attack were administered to children between 8 to 11 years old. The results were positive showing that word recognition test was highly correlated with phonological skills, semantic processing, syntactic knowledge and short-term memory. On the other hand, poor readers showed a significant delay in developing such skills.

Two years later, Abu Rabia (1995) investigated the relationship among reading ability and phonological, semantic, orthographic and syntactic skills among poor and skilled readers. The study was carried out on a 143 Arab child aged 8-11. Abu Rabia's results revealed that word recognition would correlate positively with phonological skills. Abu Rabia also noted that Arabic learners are weak in reading because they depend more on visual reading strategies rather than phonological ones.

In their study to investigate the ability of the phonological processing skills to predict literacy on native Arabic-speaking children, Al Mannai and Everatt (2005) stated that phonological awareness skills were the best predictors of reading and spelling. Their paper reports a study of the reading and spelling skills of grades 1-3 Arabic-speaking children in Bahrain. Participants were tested in their literacy skills (reading and spelling), their ability to decode letter strings, and measures of phonological awareness, short-term memory,

speed of processing and non-verbal ability. Researchers used these tests to identify the best predictors of literacy skills amongst Arabic young readers. Al Mannai and Everatt findings supported phonological awareness being the best predictor in reading.

Tibi (2010) was interested in investigating the relationship between phonological awareness and success in reading. She carried out a study to examine a developmental hierarchy of four Arabic phonological awareness tasks. The participants were 140 native Arabic speaking students from elementary grades one to three. They were administered four different phonological awareness tasks. The results revealed differences across the phonological awareness tasks among different grade levels. Results indicated that the four phonological awareness tasks ranged from easy to difficult in the following; rhyme, initial sound identification, syllable deletion, and phoneme segmentation. Significant differences were found in two tasks, identifying the initial sound of the word in favor of grade two and syllable deletion in favor of grade three. Tibi findings highlighted the benefits of explicitly teaching phonological awareness skills.

The common thread gleaned from the aforementioned literature is the importance of phonological awareness in developing reading. In accordance with the consensus that research hosts on the critical role of phonological awareness as a foundation for the development of word reading, one cannot agree more with the fact that individuals who have difficulty detecting or manipulating sounds in words will struggle with learning to read (Anthony and Francis, 2005; Hatcher et al., 2004; Share, 1995; Snowling, 1998; Vellutino et al., (2004). In his turn, Adams (1990) firmly states that if children fail acquiring phonemic awareness, then they “are severely handicapped in their ability to master print” (p. (412).

To put things into perspective, phonemic awareness, as it is clear so far, predetermines and predicts the reading ability. This becomes paramount to the Jordanian context due to the fact that English is a foreign language; a tongue where learners only get exposed to inside official learning settings. If severe consequences happen to speakers of the mother tongues, then it is logical to argue that learners of foreign languages are to be more vulnerable. Hence, this research paper came to investigate whether Jordanian learners

could realize the relationship between English orthography and its phonemic correspondences.

Subjects, Instrumentation, and Data Collection and Analysis

Forty four first graders, all Arabic native speakers aged 7 years on average participated in this study. According to their teachers, those learners were beginning readers. The majority of these participants had already entered kindergarten. Well-trained teachers administered all tasks and tests, tape-recorded for later transcription, on a one-on-one basis. The instrument was administered in April and May, 2010. The Statistical Package for Social Sciences (SPSS) was used for data analysis, with heavy dependence on descriptive statistics.

The researchers used the Yopp-Singer Test of Phonemic Segmentation (1995) which “measures a child’s ability to separately articulate the sounds of spoken words in order. For example, given the orally presented word set, the child should respond with three separate sounds: /s/-/a/-/t/.”(p. 21). The 22-item test, built on feature analysis and word familiarity basis, takes 5-10 minutes of individual administration per child. A child’s score is the total of the correctly segmented words. Yopp-Singer Test enjoys a reliability of .95 which qualifies it as an appropriate tool to make decisions about individuals. The carried out analysis revealed the Test as a valid measure of phonemic awareness (see Yopp, 1988).

Yopp-Singer Test, though designed basically for native English speakers, may be used with non-native English speakers given that (a) the vocabulary items used are familiar to English language learners, and (b) the sounds used in the test-vocabulary exist in the language sound system of the EFL learner. Considering these two conditions, and reflecting on the status quo of learning English in Jordan, the researchers were convinced, following consulting a panel of English language teachers to first graders, that the words Yopp used are familiar to the students in our setting. As for the second condition, it was clear that two sounds /g/ and /p/ in three of the words that Yopp used; namely, dog, keep, and top do not exist in Standard Arabic. In order to arrive at comparable results, the researchers used Yopp’s instrument with these cautions in mind. In order to establish its reliability

in the new context, the tool was administered to a class of first graders in Zarqa district. A correlation coefficient of 0.84 was considered appropriate given the purpose of the study. The tool was also checked for validity through consulting a panel of university professors and teachers in the field. Panel recommendations and suggestions were considered when analyzing the data.

Findings and Discussion

It is well known to every stakeholder that learning English is a dilemma for most of the Jordanian students; our children face many difficulties when learning English, and they are not becoming better readers in the target language (Bani Abdo & Breen, 2010). As outlined by the English Language National Team 2006, first graders are expected to read English and show understanding when reading through different activities. While this statement sounds promising, reality says other wise. Believing in the close connection between phonemic awareness and the ability to read, and motivated by a determination to help Jordanian children to become better readers, this study aimed to explore Jordanian first graders' possession of English phonemic awareness.

After running the analysis, the results (Table 1) showed that the total number of students' earned points on the whole instrument was 569.00 out of a total score of 968 ($M= 12.93$, $S.D.= 3.08$). To be more detailed, the minimum earned score on the test was 4 while the maximum was 17.

Table (1)
Students' Results on the Phonemic Awareness Test

	N	Min.	Max.	Sum	Mean	SD
Phonemic Awareness	44	4.00	17.00	569.00	12.93	3.08

Although this clearly indicates that none of the participants had already fully developed phonemic awareness, it also indicates that none had scored zero. Actually, since most of the participants scored higher than 14, this, according to Yopp (1995), means that the participants, borrowing Chard & Dickson's (1999) continuum, are in the process of developing their phonemic awareness.

It should be noted that when Yopp used the instrument with native English kindergartners; the mean score obtained was around 12 ($M= 11.78-11.39$). A comparison between Yopp's results and the results gained in this study reveals that this study sample, who are non-native English learners, scored a little higher ($M= 12.93$, $S.D.= 3.08$) than the native English kindergartners. Although this might look paradoxical, it can be paraphrased in two ways. First, it should not be neglected that our sample participants had two years of formal exposure to English (kindergarten and first grade); nonetheless, their mean score difference compared to that of native learners did not reflect this advantage. Second, compared to the standards Yopp (1995) established, "By the end of first grade, however, many (but not all) children have gained this awareness and can manipulate phonemes in their speech" (p.20), our sample seems to lag behind. As our results showed, 11 students scored lower than the mean suggested by Yopp, 1995. In other words, 25% of the participants scored below the mean. What this means is that 25% of the Jordanian children are more likely to become poor readers; a result that the status quo of our school and university students echo well. Does this ring a bell for serious interventions? Researchers, scholars, and decision makers should come together and brainstorm the possibilities and the potentials to make up for this loss. Otherwise, our children will get labeled, and families have to live with the consequences.

The results, as can be seen in Table 2, also showed that the words on which participants scored the lowest were "ice" ($M=.27$, $SD= .45$), "keep" ($M= .30$, $SD= .46$), and "race" ($M=.41$, $SD=.50$). As for the words "ice" and "race", it seems that the difficulty encountered in segmenting these words is possibly due to the fact that the diphthongized vowel /ai/ and the long vowel /e:/ respectively are followed by the sibilant /s/ in the word final position. On the other hand, the occurrence of the bilabial voiceless stop /p/ in the word final position in the word "keep" after the vowel /i:/ makes it harder for the participants to segment the word properly. Another plausible justification for the segmentation difficulty of "keep" is attributable to L1 interference since the sound /p/ does not exist in either spoken or written Arabic. Unlike what is expected, the word 'dog' ranked seventh among the twenty two words, despite the fact that it has the sound /g/ which does not

exist in Arabic. A warrant justification is that this sound is common and widely used in spoken Arabic as in the spoken Arabic word “gal” which means he said.

Table (2)
Mean and Standard Deviation for Individual Words

Word	Mean	SD	Word	Mean	SD
at	.77	.42	three	.59	.50
job	.75	.44	sat	.59	.50
do	.72	.45	red	.59	.50
that	.72	.45	top	.57	.50
she	.70	.46	fine	.57	.50
zoo	.70	.46	wave	.50	.51
dog	.70	.46	no	.45	.50
lay	.68	.47	race	.41	.50
by	.66	.48	grew	.41	.50
me	.64	.49	keep	.30	.46
in	.61	.49	ice	.27	.45

The fact that our participants had almost finished their first year in public education indicates clearly that the attained reading proficiency level does not meet the expectations of neither the officials nor the families. This, the researchers believe, speaks to why Jordanian English learners may encounter a reading difficulty in later stages. Such a status quo then reflects a discrepancy between the MOE general curriculum guidelines and what is going on for real. English reading among our children, even among university graduates, should trickle down all decision makers and board rooms to ceaselessly assess the teaching-learning process as it occurs in classrooms. In fact, the MOE should conduct a review for the guidelines and the schooling that is introduced to our children.

A case in point is that the mandatory school currently starts from grade 1 to grade 10; therefore, kindergarten is not a part of the obligatory education in Jordan in spite of its importance for children in developing phonemic awareness; receiving phonemic awareness during kindergarten will increase those children' chances to become better readers. An analysis of the status quo, then, should trigger the initiative for intervention programs to help

fixing English reading. It also invites reconsideration of the way phonemic awareness is introduced to the pupils, which by default dictates a closer look at teachers' practices in classrooms.

Conclusion, Limitations, and Recommendations

Based on a consensus among researchers in the field that phonemic awareness is the best predictor of success in beginning reading, efforts should be geared towards raising teachers' awareness of the significant role learners' awareness in the sounds of the language plays in shaping their ability to read. Workshops, seminars, and discussion sessions should be on-going to equip teachers with the required skills and knowledge to enable them to plan for and carry out phonemic awareness activities and instructions. Most researchers in this area advocate that teachers consciously and purposefully attend to phonemic awareness development as part of a broad instructional program in reading and writing.

Certainly, kindergarten children should have many opportunities to engage in activities that teach them about rhyme, beginning sounds, and syllables. How much time is needed for this kind of focused instruction is something only the teacher can determine based on a good understanding of the research on phonemic awareness and of his/her students' needs and abilities. Research (Yopp & Yopp, 2000) suggests that different children may need different amounts and forms of phonemic awareness instruction and experiences. Despite the clear need for intervention programs for learners who are still lagging behind, it is not even clear what an effective intervention program looks like.

This study pioneered a line of research considered crucial for reading development. In fact, further research is urgently needed to comprehensively analyze current status of phonological awareness instruction in general and phonemic awareness in specific. To exemplify, it is not clear what strategies teachers actually adopt in order to help learners become phonemically aware. It is not clear to what extent the EFL textbooks adopted country-wide are rich enough to develop awareness in the language sounds. And since kindergarten education is not yet mandatory in Jordan, it would be very interesting to see whether economically and socially less fortunate

learners can compensate for the gap between them and their peers who had received kindergarten education.

Finally, this study is a step in a long research journey to investigate and study factors standing behind our students' poor performance in reading. The findings of this study are limited to the population from which the sample was drawn—a limitation that restricts the scope of generalizing findings to the rest of the country. Although it might be considered a limitation, using the Yopp-Singer Test announced the urgent need to develop and design testing tools specific to Arabic language.

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