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Effects of Phonological awareness (PA) and Morphological Awareness (MA) on Learners' reading comprehension in Second Language Acquisition

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Abstract

The purpose of the study was to investigate the effects of reading comprehension from a morphological perspective level of morphological complexity and lexical category. The research sample included 40 intermediate participants who were studying English as a foreign language (EFL) in Shohada's private high school in Ahvaz. They were randomly divided into two identical groups, One group was experimental group (n=20) and the other one was the control group (n=20). They took a pre-test in reading comprehension at the beginning of the study. The experimental group received awareness on Phonological Awareness (PA) and Morphological Awareness (MA) in reading courses while the control group received traditional approach of reading aloud, using dictionaries, etc. They were taught 10 passages each session was 75 minutes. Finally, at the end of the course and after an interval of three weeks, the participants sat for their experimental post-test as an indicator of the long-term effect, retention of the instructions. Data were collected and analyzed through paired and independent samples t-test to compare the means of the pre-test and the post-test in both groups. This research has shown that applying the effects of PA and MA improves pre-control second Language acquisition and the interval between the control and experimental post-tests decreases the second Language acquisition. The Implications of the study suggest that using PA and MA can improve reading comprehension among the language learners at the intermediate level.

Key words: *Reading Errors, Reading comprehension, Morphological awareness, Phonological awareness*

I. Introduction

Reading is one of the basic skills in language learning and teaching. Chastain (1988) stated that second and foreign language students need to read large quantities of authentic materials in order to be able to read for communication. Reading is a crucially important language skill. Its importance is much more felt in today's life than in any time in human history. we are being exposed to a vast body of knowledge via internet and in order to understand this knowledge and get advantage of that students need to be proficient readers (Browning, 2003). Clearly, instruction plays an important role in the learner's success; however, the classroom content needs to be the representation of the

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real content out of the class to which the students will frequently be exposed to in their real life encounters. Reading comprehension is a complicated process of comprehending a piece of text and then constructing its meaning. To read fluently and with comprehension, students must successfully combine a number of reading sub-skills, pre-requisites for successful reading. In addition to the concept of print, alphabetic awareness, phonological awareness, phonemic awareness, syntactic awareness and semantic knowledge need to understand how texts in English are organized according to their purpose, that is, discourse awareness. Decoding English does not automatically bring comprehension, and the point of reading is to understand what is read. For such a purpose, students need good general language comprehension, with adequate semantic, syntactic and discourse knowledge to draw upon to enable reading with meaning. When discussing "the text" and the semiotic dimensions of the text-work, there seem to be some salient factors which affect reading broadly, such as real teaching context, the readers' schemata or background knowledge, their level of language proficiency and also the students' cultural beliefs about reading (Brown ,2000).

The two terms top-down and bottom-up processes are frequently used when one talks about second language reading processes. In this relation, the word top refers to the higher order mental ideas and concepts like the reader's expectations and knowledge. The word bottom, on the other hand, refers to the printed words on the page. Connecting the ideas on the page or the text the learners are exposed to, to what they already know is one of the main objectives in reading. When one knows nothing about a certain subject, he will not be able to easily get and comprehend the words of text to which he is being exposed. It is like pouring water in hand. Relating the prior knowledge to the new information and the application of that knowledge into the learning situation is an important learning goal. The extent to which such a transfer occurs determines the degree of success (McKeough, 1995; McDonough, 1995). Our background knowledge helps knowing and learning the new words and concepts. Effective teaching can lead to the enrichment of the existing knowledge, deepens it and makes it more comprehensible via connecting the lesser-known and better-known, the old and the new information, and elaborating on the new concepts and the key words. Such a teaching forms a network of

ideas so that all the key words and concepts are logically related to each other and to the other existing ideas in the same text. Moats (2000) is mainly interested in studying the role of knowledge of reading strategies and their implementation in reading classes by the learners in helping the EFL learners read and comprehend a reading text more rapidly and successfully. We may refer to Making Connections, Questioning, Inferring, Visualizing, Summarizing, Using Prior Knowledge, Evaluating and Synthesizing, some of which have been taught and practiced in a real class in the present study. In this study both theoretical and pedagogical considerations have been taken into account. Theoretically, we may want to know if the knowledge of the reading strategies can provide opportunities for in-depth comprehension of a text that is important and facilitates learning in the second language reading classroom. Pedagogically, research findings might provide us with some tentative empirical-based evidence on the effective role of knowledge of reading strategies in more in-depth and quicker processing of a reading comprehension text in our reading classes.

Most researchers agree that reading comprehension is not simply recognizing individual

words, or even understanding each individual word as our eyes pass over it. All models of comprehension recognize the need for readers to build up a mental representation of text, a process that requires integration across a range of sources of information, from lexical features to knowledge concerning events in the world (e.g., Garnham, 2001; Gernsbacher, 1990; Kintsch, 1998). For this reason, the Simple View of Reading, which could be seen as the first endeavor to describe the "balanced literacy", suggests that reading comprehension results from developing skills in the areas of decoding and linguistic comprehension (Kirby & Savage, 2008).

Studies of such children allow us to identify cognitive systems that may be particularly crucial for the development of reading comprehension, and that are relatively independent of the processes underlying the development of word recognition skills in reading. Morphological Awareness (MA) refers to students' understanding of the structure of words as mixtures of meaningful units are called morphemes. It can be revealed when the reader analyzes complex words into maker morphemes or knows morphological connections between words. That is, to understand the structure of a word, its meaning, and the different mixtures of its morphemes. This process of morphological analysis needs the integration of lexical knowledge of special derivational suffixes and root morphemes with the meta -linguistic ability to recognize these units and describe them Identification, analysis and definition of the structure of morphemes are the tasks of morphology (Nagy, 2006). Models of word reading, the formal treatment of morphology usually distinguish between derivation and inflection. The meaning changes that result from inflection such as plural /s/ or past /ed / in English are largely constrained by the syntax of the language. Derivational morphology involves a change in syntactic category such as hope, hopeful. Nagy,W., Berninger,V.,& Abbott,R.(2006) suggested that the predictive role of MA in reading comprehension would increase with age. MA effected on reading comprehension independent from strategy use at the word level. Morphological or syntactic awareness leads to increased width and depth of word knowledge, which affects reading comprehension (Williams, 2011). This highlights the main usefulness of teaching PA and MA as skills in their own right without having to consistently focus on orthography- phonology mappings. The two main questions addressed in the present study are the following:

RQ1. Do the effects of reading error patterns of PA and MA prevail in second language acquisition?

RQ2. Do PA and MA reading similarly affect on second language acquisition?

II. Literature Review

Reading is a complex activity. The goal of reading is " to construct text meaning based on visually encoded information" (Koda, 2007,p.1). Theories about reading and numerous teaching techniques have created an awareness of the influence that reading skill has on other skills such as listening, speaking, writing, and even translating (Sheng, 2000). Furthermore, reading is probably the most important skill for the second language learners in academic contexts (Carrel,1989).

2.1.Theoretical Background

A widely held view in the current literature on second language acquisition is that one major way in which second language learners acquire grammatical and other kinds of language knowledge is through exposure to and comprehension of the meaning of oral and written texts in that language. Considerable research has been done on the nature of language input to second language learners. Particular attention has been given to modifications made by native speakers addressing language learners, which are thought to increase the comprehensibility of the input and possibly to facilitate their language acquisition in several ways. Some studies have examined the effect of input modifications on the comprehensibility of spoken discourse by native speakers (e.g., Henzl, 1973; Long, 1985; Chaudron, 1985, 1988). Other research has linked such modifications to global proficiency gains (e.g., Edwards, Wesche, Krashen, Clement & Kruidenier, 1984;Wesche & Ready, 1985), and in some cases to the acquisition of specific elements of syntax and vocabulary (e.g., Wagner-Gough & Hatch, 1975; Light bown, 1983; Hawkins, 1987; Braidi, 1990). While links between input features and acquisition have been demonstrated to some extent, there remains a need for research on the relationship between the act of comprehension and the internalization of linguistic knowledge

(Faerch & Kasper, 1986; Long, 1983). The programs or interventions directed to promote reading should be based on, first, researching the source of limitation as it can be related to auditory-sensory temporal processing issues, or to cognitive issues or transferring cognitive or auditory skills (Mota & Pinheiro , 2015). Second, there has been a lack of consistency of the methodological factors used in researching the effectiveness of the various approaches directed to enhance reading and speech skills. In return, this created a controversy as to which the most suitable approach to use and in which type of condition (Murphy & Pires , 2015). PA is the understanding that spoken language which is composed of units of speech, such as words, syllables, rhymes, onsets (the initial consonant sound of a syllable, b – in bag , sw - in swim). and rimes (part of the syllable that contains the vowel and all that follows it, - ag in bag,- im in swim). Phonemic awareness, a subset of PA, is the understanding that words are made up of individual sounds, and the ability to identity those sounds.

MA is a higher order cognitive ability, involves being which conscious of and the ability to manipulate the morphological units. It involves the ability to identify root words and their inflected or derived forms. It is the ability to segment words into meaningful units and to manipulate morphemes to create new meanings, that is, to understand the structure of a word, its meaning, and the different combinations of its morphemes. Thus, morphological awareness refers to a conscious awareness of word structure and semantic functional meanings while taking into consideration the root, structure, base form, and suffixes representing inflectional and derivational processes (Kieffer & Lesaux, 2008).

Children who have better abilities in analyzing and manipulating rhymes, syllables, and phonemes are better at learning to read than children who have difficulties in acquiring these skills. The relationship between PA and early reading acquisition is present even after such factors as intelligence, vocabulary skills, and listening comprehension are disposed. PA has a unique relation with word reading (McCueen, 2009). Further, PA enables children to produce possible words in context from the partially sounded out words by elaborating similar phonemes in words. Indeed, children who are quick to develop the ability to analyze and to construct a connection between sound segments and letters almost invariably become better readers than children who have difficulties in developing these early skills.

2.2.Empirical Background

Empirical studies have also indicated that utilizing reading strategies enhances L2 reading comprehension by changing learners' reading behavior and repairing deficit in their understanding of a reading text (Caverly,1997; Yang,2004). This involves the process of reading that pertains to the recall of pre-knowledge such as personal experience, academic fact, and visualization that facilitate the construction of successful reading comprehension (Barnett 1989). In other words, readers can infer the meaning of a text from the topic-specific pre-knowledge that they have obtained both implicitly and explicitly on the word, sentence, or discourse level (Anderson,1999). Such a process is only possible when readers have activated their pre-knowledge to mediate their reading that further assists their comprehension. As Birch (2014) has already indicated, learners' language proficiency is correlated with their pre-knowledge activation when it comes to repairing their deficit to read in an L2. This shows that L2 proficiency plays an important role in learners' reading strategy use (behavior) that further influences their deep-level reading comprehension (deficit repair) (see Birch, 2014).

Experimental research on comprehension instruction and strategy training is extensive (see Pressley, 2006; Trabasso & Bouchard, 2002). Many L1 studies demonstrate a causal impact of instructional skills and strategies on reading comprehension. Important evidence supports answering main idea questions as a post-reading task, using

semantic mapping of ideas from a text, previewing specific information from the text, asking student to formulate questions about a text, filling in and generating graphic organizers that reflect the organization of the text, visualizing information from the text, and raising awareness of discourse organization of the text, among others. Overall, a number of effective strategies have been identified in instructional research, though combinations of strategic responses to texts appear to be more effective in supporting comprehension (See Grabe, 2009; Grabe & Stoller, 2011).

Research on L2 strategic processing is more limited. There are relatively few studies that demonstrate a direct relationship between reading strategies and reading comprehension. In a recent meta-analysis of L2 reading strategy research, Taylor, Stevens & Asher (2006) reviewed the existing empirical research in L2 reading strategy training and concluded that a low to moderate effect exists between strategy training and L2 reading comprehension improvement. The analysis is encouraging, but it should be treated cautiously due to the limited database available for the analysis. Instruction strategies that rely exclusively on PA may not be fully effective in equipping first graders with strategies that would enhance their emerging reading abilities. Skillful readers seem to recognize familiar words visually where they visually process every individual letter of every word as they read (Adams,1990). This is evident when skillful readers detect sometimes the slightest misprint that may appear in a long word or a text. In addition, skillful readers also use context to speed the interpretation of orthographic information only after the word is identified. That is, context does not take the place of orthographic information.Therefore, skillful readers should possess the knowledge of word's morphological structure and pronunciation. Spelling–sound associations serve seem to function only as a backup system for recognizing visually less familiar words. Research clearly indicates the importance of both the alphabetic script with its morphological components and the phonological processor in the process of reading. Observations of everyday reading behavior of beginning readers clearly reveal this sounding out behavior in both reading and writing attempts. Therefore, activating the morphological awareness skills plays a critical role in the process of learning to read (Deacon, S. H., Parrila, R., & Kirby, J. R. (2004); Elbro & Arnbak, 1996). In fact, understanding and using the alphabetic principle depends equally on knowledge of letters and explicit awareness of the phonemes these letters represent. Adams (1990) has stated that "knowledge of letters and phonological awareness have been found to bear a strong and direct relationship to success and ease of reading acquisition" (Adams, 1990, p. 44). It also could be concluded that the present study aimed to bridge this gap in the literature.

III. Objectives of the Study

The purpose of the study was to investigate the effects of reading comprehension from a morphological perspective level of morphological complexity and lexical category. Any reading component of an English language course may include a set of learning goals such as: (1) Developing an awareness of the structure of written texts in English. (2) The ability to read a wide range of texts in English. This is the long range goal most teachers seek to develop through independent reader outside EFL/ESL classroom. (3) Building a knowledge of language which will facilitate reading ability. (4) Taking a critical stance to the contents of the texts.(5) The ability to adapt the reading style according to reading purpose i.e. skimming, scanning. and (6) Building schematic knowledge.This study may show that the children who have better abilities in analyzing and manipulating rhymes, phonemes and syllables, and having ability to identify root words and derived forms are better at learning to read comprehension than children who have problems in acquiring these skills.

IV. Significance of the Study

The significance of the study arising from the importance of finding remedies for reading problems. Because most of the students and the teachers of English complain about reading difficulties such as comprehension difficulties, coding, decoding and a different set of words, more complex grammatical structures and different text organization to express content which describes complex relationships (Zwiers,2008).The researcher believes that the results of this study will be beneficial to teachers as well as students who learn English as foreign language.

V. Methodology

This section explains on the characteristics of the included participants and the way they were selected. It elaborates about the instruments which were used to collect the needed data. Data collection and data analysis are described at the end of this section.

5.1 Participants

The participants of this study were 20 EFL female students who selected in two intact classes that taking reading courses through the learners'text book. i.e., Active reading2. This book includes nine units. Authors are containing Dr. Purvis Brigandi, Dr. Mehdi Nowruzi and Dr. Gholam Hossen Mahmovdi. It will be taught to the learners to reveal their error patterns of PA and MA during reading processes. The research sample included 40 intermediate participants who were studying English as a foreign language (EFL) in Shohada's private high school in Ahvaz. They were randomly divided into two identical groups, One group was experimental group (n=20) and the other one was the control group (n=20).

5.2 Instrumentation

The present study dealt with the following instruments:

A teacher made pre/post test will be designed to cover all of the topics that the EFL learners will be studying during the fall semester. While taking the pre-test at the beginning of a semester, students are not expected to know the answer to all of the questions, However, they were expected to use previous knowledge to predict rational answers. When taking the same test as a post-test at the end of a semester, students should be expected to answer more questions correctly based on an increase in knowledge and understanding.

A pre/post-test should be designed to measure the amount PA and MA error patterns of learning the reading passages. To do this, questions concerning all of the topics covered during a semester must appear on the test. When grading tests, the teacher assigns a numerical score to both the pre-test and the post-test concerned with the identification of PA and MA errors they commit in reading comprehension courses.To demonstrate that students progress has been made during a given semester, the post-test were compared with the pre- test. The pre and post test will be designed based on the learners'text book.i.e., Active reading 2 and includes 30 items of reading comprehension. The reliability and validity of the tests were calculated through a pilot study.

5.3 Materials

This book has nine units and every unit has one different topic. Therefore, every unit includes many activities that focus on speaking, listening, reading and writing. It used as the materials to examine the reading skill of pre-intermediate learners during the current study.

5.4 Data Collection and Procedure

The participants of this research were taught reading comprehension textbook of Active reading 2 in two classes of experimental and control groups. They were 40 students who participate in the study. Their level of English proficiency was measured through a pre-test of phonological awareness and morphological awareness before giving them any treatment. Then they were randomly divided into two groups of experimental and one control. The experimental group received reading patterns of PA and MA errors. They were taught the patterns of errors in reading the texts. They use the activities including: (1) Teaching words and their pronunciation, (2) Teaching suffix and prefix,(3) Teaching consonant clusters / vowels and consonants, (4) Reading the text and doing comprehension questions, and (5) Teach error correction and feedback in ten sessions. In the control group, the participants read the texts and answered reading comprehension items and reading error patterns implicitly. Then, a reading comprehension post- test was given to the participants after 10 sessions of treatment each lasts 75 minutes. The learners' frequency of error patterns will be calculated though frequency in both pre and post -tests. Then the number of reading error patterns was compared in both groups. The purpose of this study was to evaluate the learners' error patterns and their effects on their reading comprehension in the pre and post- tests. Finally, both groups' data were collected and analyzed through descriptive and inferential statistics.

5.5 Data analysis

Data were analyzed through independent and paired samples t-test employed to see if there are significant differences between the control and experimental groups. The hypothesis was tested at a .05 level of significance. The statistical method was done through descriptive and inferential statistics through IBM SPSS ,version 17.

VI. Results

Table 1.One-Sample Kolmogorov-Smirnov Test

		Pre-test Control	Post-test Control	Pre-test Experimental	Post-test Experimental
N		20	20	20	20
Normal Parametersa,,b	Mean	10.4000	11.2500	13.4000	20.5000
	Std. Deviation	7.61854	5.80268	2.96293	4.37096
Most Extreme Differences	Absolute	.274	.167	.174	.266
	Positive	.274	.167	.174	.266

	Negative	-.200	-.133	-.160	-.188
Kolmogorov-Smirnov Z		1.224	.748	.780	1.191
Asymp. Sig. (2-tailed)		.100	.631	.577	.117

a. Test distribution is Normal.

b. Calculated from data.

Table 1 depicts one-sample Kolmogorov-Smirnov Test since the participants of this study were small ,the normality test was calculated and the results showed the normality of the test, Thus the parametric statistics like t-test can be used.

Table 2:

Descriptive Statistics (Experimental vs. Control Groups, Pre-test*)*

Groups	N	Mean	Std. Deviation	Std. Error Mean
Control	20	10.4000	7.61854	1.70356
Experimental	20	13.4000	2.96293	.66253
Total	40			

Table2 shows that the mean is 10.4000 and the standard deviation is 7.61854 for the control group. In the case of experimental group, the mean and standard deviation are 13.4000 and 2.96293 respectively. As it is noticed, the means and standard deviations of the two groups are approximately similar on the pre-test. The data were put into Independent Samples t-test analysis to show any possible difference between the experimental and control groups on the pre-test. Table3 shows the results.

Table 3:

Independent Samples t-Test (Experimental vs. Control Groups, Pre-test)

	Levene's Test for Equality of Variances	t-test for Equality of Means			
					95% Confidence Interval of the

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Difference Lower	Difference Upper
Equal variances assumed	13.254	.001	-1.641	38	.109	-3.00000	1.82785	-6.70030	.70030
Equal variances not assumed			-1.641	24.619	.113	-3.00000	1.82785	-6.76749	.76749

Table 3 shows the result of the Independent Samples *t*-test for pre-test of the two groups. Since the observed t (1.641) is less than the critical t (2.000) with df=38, the difference between the groups is not significant ($p<0.05$). It can be inferred that both the experimental and the control groups performed significantly similar on the pre-test, that is, the participants' knowledge concerning the reading comprehension before treatment was considerably equal.

6.1. Results Obtained from the Control Post-test

The data were obtained from the performance of the students on the control post-test and they were analyzed descriptively in terms of the mean and standard deviation of the two groups in the control post-test which are presented in Table 4.

Table 4:

Descriptive Statistics (Experimental vs. Control Groups, Post-test)

Groups	N	Mean	Std. Deviation	Std. Error Mean
Control	20	11.2500	5.80268	1.29752
Experimental	20	20.5000	4.37096	.97738
Total	40			

Table 4 shows that the mean is 11.2500 and the standard deviation is 5.80268. The mean and standard deviation of the experimental group are 20.5000 and 4.37096 respectively. As it is noticed, the mean and standard deviation of the two groups are not similar on the control post-test. However, to arrive at the significant difference between the two groups, Independent Samples t-test was run. The results are press are presented in Table 5 .

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Table .5:

Independent Samples t-Test (Experimental vs. Control Groups, post-test)

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.001	.980	-5.694	38	.000	-9.25000	1.62444	-12.53851	-5961.149
Equal variances not assumed			-5.694	35.310	.000	-9.25000	1.62444	-12.54676	-5.95324

Table 5 shows the result of the Independent Samples *t*-test of the control post-test for the two groups. As it can be observed t (5.694) is greater than the critical t (2.000) with df=38. Thus, the difference between the groups is significant ($p<0.05$), so it can be inferred that two groups are not similar on the experimental post-test.

6.2. Results obtained from the Paired Samples *t*-test (Experimental vs. Control Groups ,Pre and post-test) .

To reveal significance difference between the control and experimental groups in post-test, Paired Samples *t*-test has been used. The Paired Samples *t*-test was used to compare the means of two the variables. Thus , the means of the both tests concerned with teaching course were compared. Results showed that the participants scores on the Experimental post-test were declined. The results are presented in Table 6 .

Table 6:

Descriptive Statistics (Experimental vs. Control Groups ,Pre and Post-test)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Control-Pre	10.4000	20	7.61854	1.70366
	Control-Post	11.2500	20	5.80268	1.29752
Pair 2	Experimental-Pre	13.4000	20	2.96293	.66253
	Experimental-Post	20.5000	20	4.37096	.97738

Table6 shows the means and standard deviations for both experimental and control groups concerning control pre and Experimental post-test. As it is seen the means of the control post-test are lower than the mean of the Experimental post-test in both groups.

6.3. Result obtained from the Paired Samples *t*-test (Experimental and Control Post-test)

To accept or reject the third null hypothesis, that is, interval between control and Experimental post-test does not affect the learners' reading comprehension achievement, the data obtained from the performance of the students on the post-tests of both groups were collected and analyzed .The results are presented in Table7.

Table7:

Paired Samples t-Test (Experimental vs. Control Groups , Pre and Post-test)

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Control-Pre Control-Post	-.85000	8.11286	1.81409	-4.64693	2.94693	-.469	19	645

Pair 2	Experimental-Pre Experimental-Post	-7.10000	4.037 98	.90292	-8.98983	-5.21017	-7.863	1 9	.000

Table 7 indicates that the observed t (469) is greater than the critical t (2.04) with df =19,thus the difference between the groups is significant in pair1.Since the observed t (7.863) is greater than the critical t (2.04) with df =19, the difference between the groups is significant in pair 2, so the third null hypothesis is rejected. Moreover, the interval affected the control group more than the experimental one; however, both groups showed the significant difference in gaining the scores.The experimental groups reading comprehension scores declined less than the control groups one in the Experimental post-test.

VII. Discussion

This section deals with the discussion of the results to give the possible reasons for the obtained findings of the study. Moreover, it answers the research questions.

7.1 The First Research Question

Do the effects of reading error patterns of PA and MA prevail in second language acquisition? the results obtained from the pre and post-tests of the experimental and the control groups were compared. Results showed that the means and standard deviations of the experimental group and control group were not similar on the pre and post-tests to assess the effects of PA & MA on learner's reading in second language acquisition. Moreover, the results of the Independent Samples *t*-test showed that statistically there was a little difference between the experimental and the control groups in terms of reading comprehension on the pre-test. Findings showed the result of the Independent Samples *t*-test of the pre and post-test for the two groups. As it can be observed, the difference between the groups pre and post-test is significant ($p<0.05$), so it can be inferred that the two groups were not similar on the pre and post-tests. That is, based on these findings enough support was provided for rejecting the first null hypothesis. Results indicated that applying of the effects of PA & MA on learner's reading in second language acquisition affected the pre-control group in second language acquisition in the experimented group .Thus it can be inferred that both the experimental and the control groups performed differently on the pre and post-tests. The most common PA and MA that occurred across several lexical categories were inability to read the word, omission of a letter or a syllable, substitution of letter or a syllable, addition of a letter or a syllable, and reading the geminated letter as ingeminated. The noun lexical category was the most inclusive to all PA and MA while the prepositions and adverbs category did not include except the four common patterns of reading errors.

7.2 Second Research Question

Do PA and MA reading similarly affect on second language acquisition?

If the effects of PA & MA on learner's reading in second language acquisition improves pre-control second language acquisition. the results of the performance of both groups, the experimental and control, on the experimental post-test were presented in Tables6 and 7. In the control group the mean is less than the experimental group respectively, so it can be said that both the experimental and the control groups performed differently on the

experimental post-test. Thus, there was a significant difference between the experimental and control groups in terms of second language acquisition. These findings also gave the researcher enough support to reject the second null hypothesis which indicated that applying the effects of PA & MA on learner's second language acquisition does not affect the pre-control second language acquisition .Meanwhile, the results showed that post -test affected the control group to forget their reading comprehension knowledge more than the experienced one .The Paired Samples *t*-test was also used to compare the means of the pre-test and the experimental post-test, that is, the researcher compared the means of the test scores before and after the experimental to see if the reading comprehension was effective in general.

The results of the paired samples *t*-test showed that the means of the scores on the experimental post-test in the control group were lower than the experimental one. The result of Independent Samples *t*-test of the experimental post-test for the two groups showed the difference. Consequently, it can be said that in both groups, the reading comprehension knowledge of the participants decreased in the experimental post-test. The findings revealed that the reading comprehension of both groups improved.

Phonological Awareness (PA) refers to the ability to perceive and manipulate the sounds of spoken words (Mattingly, 1972). It is the ability to hear and manipulate the sounds in spoken words and the understanding of different ways in which oral language can be divided into smaller components and manipulated (Wagner, 1997). Significant correlation between early PA and subsequent reading and spelling skills has been demonstrated in many studies (e.g., Bryant, 1990; Caravolas, 2001; Silva & Alves-Martins, 2002; Gillon, 2004). Though there is a contemporary emphasis on researching the effects of PA on reading skills, another related important process has an importance for reading ability is morphological awareness. Siegel (2008) stated that morphological awareness correlates more highly with spelling and reading than phonological and syntactic awareness although phonological awareness had the major interest in research. Reading involves grapheme–phoneme conversion, which implicates the significant role of phonological awareness in reading. As such and as an interrelated skill, morphological decomposition is needed to read more complex words (Verhoeven & Perfetti, 2011).

Morphological knowledge has the potential to affect literacy skills in at least three ways: through word recognition, comprehension, and motivation (Bowers, Kirby, & Deacon, 2012). According to the authors, word recognition is supported by phonological awareness, rapid automatized naming, orthographic processing, and vocabulary knowledge (Bowers, 2012). Additionally, morphological knowledge was found to be a good predictor of sublexical tasks (e.g. pseudo-word reading) (e.g. Deacon & Kirby, 2004), and lexical tasks (word reading accuracy), (e.g. Bowers, 2012; Carlisle & Katz, 2006). Moreover, MA has shown to contribute to reading comprehension by helping children to break down complex words into their constituents, and thus recognize more easily their meaning and or the syntactic role they play in a sentence (Carlisle, 2003). Beyond the early elementary grades, when readers are exposed to a greater number of academic words e.g., chronology, hypothesize, or mesozoic, which tend to be morphologically complex and less common in oral language, the role of MA on reading comprehension is expected to increase (Kuo & Anderson, 2006).

VIII. Conclusion

This study tried to investigate the effects of PA and MA on learner's reading in second language acquisition .The findings of the study revealed that the interval between the pre and the post-tests affects the EFL learner's reading comprehension in second Language acquisition achievement mainly in control post-test rather than

experimental post-test. This interval affect the loss of learning reading comprehension since it revealed that this interval could have less affect in case of applying the effects of PA and MA. However, it needs further research to study the length of interval and the loss of reading comprehension achievement. concerning the efficiency of the effects of PA and MA in improving second Language acquisition, it is also found that this strategy was considered effective among the participants in the study. It should be stated as an innovative strategy. Thus learners need to build a reading background concerning to relating of PA and MA in teaching reading before the main course of instructions. It could be concluded that, the findings of present study revealed that applying the effects of PA and MA improves pre-control second Language acquisition and the interval between the control and experimental post-tests decreases the second Language acquisition.

References

1. Adams, M. J.(1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA:MIT Press.
2. Anderson, N. J. 1999. Exploring Second Language Reading: Issues and Strategies.
3. Boston, MA: Heinle & Heinle.
4. Barnett, M. A. 1989. More Than Meets the Eye. Englewood Cliffs, NJ: Prentice
5. Hall Regents.
6. Birch, B. M. 2014. English L2 Reading: Getting to the Bottom. London: Routledge.
7. Bowers, P. (2012). Effects of morphological instruction on vocabulary acquisition.
8. *Reading and Writing, 23,* 515-537.
9. Bowers, P. N., Kirby, J. R., & Deacon, S. H. (2012). *The effects of morphological*
10. *instruction on literacy skills*: A systematic review of the literature.Review of
11. Educational Research, 80, 144–179.http://dx.doi.org/10.3102/0034654309359353
12. Brown, H. D. (2000). *Principles of Language Learning and Teaching, Fourth Edition.*
13. Longman: San Fransisco.
14. Browning, J. (2003). Why Teachers Should Use Timed Reading in ESL Classes?
15. *TheInternetTESL Journal*, 9 (6). Retrieved
16. From ttp://iteslj.org/Articles/Browning-Timed Reading.html.
17. Bryant, P., (1990). *Children's reading problems.*Oxford: Blackwell.
18. Carlisle, J. F. (2003). *Morphology matters in learning to read: A commentary. Reading*
19. *Psychology, 24,291–322.OECD. PISA 2012 Results: What students know*
20. *and can do. Student performance in mathematics, reading and science (Vol. 1).*
21. Retrieved from http://www.oecd.org/pisa/ keyfindings/pisa-2012-results.htm.
22. Carlisle, J.F., & Katz, L. (2006). Effects of word and morpheme familiarity on reading.

23. Caverly, D. (1997). Teaching Reading in a Learning Assistance Center. ERIC Document
24. Reproduction Services No. ED 478 373.
25. Chastain, K.(1988). *Developing Second Language Skills,Theory and Practice,*
26. 3rd ed. San Diego: Harcourt Brace Jovanovich.
27. Deacon, S. H.,& Kirby , J. R. (2004).Morphological awareness: Just "more
28. phonological"? The roles of morphological and phonological awareness in reading
29. development. *Applied Psycholinguistics,25*, 223–238.
30. Ehri, L.C. (1992). Reconceptualizing the development of sight word reading and
31. its relationship to recoding. In p. Gough, L. C. Ehri, & R. Treiman (Eds.),
32. R. Treiman (Eds.), *Reading acquisition* (pp. 107-143). Hillsdale, NJ:
33. Laurence Erlbaum Associates.
34. Garnham, A. (2001). *Mental models and the interpretation of anaphora.* Hove, UK:
35. Psychology Press.
36. Gernsbacher, M.A. (1990). *Language comprehension as structure building.* Hillsdale, NJ:Erlbaum
37. Gillon, G. (2004). *Phonological awareness: From research to practice*. New York,
38. NY:Guilford.
39. Grabe, W. (2009). *Reading in a second language: Moving from theory to practice.*
40. New York: Cambridge University Press.
41. Grabe, W., & Stoller, F. (2011). *Teaching and researching reading(2nd ed.).* Harlow,
42. UK: Pearson Longman.
43. Kieffer, M. J., & Lesaux, N. K. (2008). The role of derivational morphology in
44. the reading comprehension of Spanish-speaking English
45. language Learners . Learners . *Reading and Writing, 21*(8), 783-804.
46. Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. New York: Cambridge
47. University Press.
48. Kirby, J.R. & Savage, R.S. (2008). Can the simple view deal with the complexities of
49. reading?*Literacy, 42*, 75-82.
50. Koda, K. (2007). Reading and language learning: Crosslinguisc constraints on second
51. language reading development. In K. Koda (Ed.), *Reading and language*
52. *learning* (pp. 1-44).
53. Kuo, L-J., & Anderson, R. C. (2006). Morphological awareness and learning to read:

54. A crosslanguage perspective. *Educational Psychology, 41(3),* 161-180

55. McQueen(2009). Learner strategies. *Language Teaching Research, 32, 1–18.*

56. Mattingly, 1. G. (1972). Reading, the linguistic process, and linguistic awareness. In J. F.

57. Kavenagh & 1. G. Mattingly (Eds.), *Language by ear and by eye.* Cambridge

58. Mass: MIT Press.

59. Mota & Pinheivo.(2015).Consciência morfológica, *aspectos cognitivos da linguageme*

60. *reconhecimento de palavras.* Inter Psicol.2011;15(1):21-6.

61. http://dx.doi. org/10.5380/psi.v15i1.15654.

62. Murphy,& Pires. (2015). *Learning a second language in the early school years:*

63. *Trends and contexts.* Oxford: Oxford University Press.

64. Nagy, W., Berninger, V., & Abbott, R. (2006). Contributions of morphology beyond

65. phonology to literacy outcomes of upper elementary and middle-school

66. students. *Journal of educational Psychology, 98,* 134-147.

67. Pressley, G.M. (2006). Metacognition and self-regulated comprehension. In A.E. Farstrup, & S.J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 291-309). Newark, DE: International Reading Association.

68. Sheng, H. J. (2000). A Cognitive Model for Teaching Reading Comprehension. *English Teaching Forum, 38*(4), 12-15.

69. Silva, C., & Alves Martins, M. (2002). Relationships between phonological skills and

70. levels of development in the writing of pre-syllabic children. *Reading*

71. *Research Quaterly, 37,* 466-483.

72. Taylor, A., Stevens, J., & Asher, J. W. (2006). The effects of explicit reading

73. strategy training on L2 reading comprehension. In J. Norris & L. Ortega

74. (Eds.), S*ynthesizing research on language learning and teaching* (pp. 213-

75. 244). Phila J. Benjamins.

76. Verhoeven ,L. , & Perfetti, C. (2011). Morphological processing in reading acquisition: A cross- linguistic perspective. *Applied Psycholinguistics, 32,*457- 466.

77. Wagner, R. K., Torgesen, J. K., Rashotte, C. A., Hecht, S. A., Barker, T. A., Burgess, S.R., et al. (1997). Changing relations between phonological processing abilities and word-level reading as children develop from beginning to skilled readers: A 5-year longitudinal study. *Developmental Psychology, 33,*468–479.

78. Williams, B. F.. (2011).*Effective programs for treating autism spectrum disorder:*

79. *Applied behavior analysis models*. New York: Routledge.

80. Yang, L. L. 2004. “The Development of a Validated Perceived Self-efficacy Scale on English Reading Strategies.” Journal of Education & Psychology 27: 377–398.

81. Zwiers, J. (2008). *Building academic language: Essential practices for content classrooms,grades 5-12.* San Francisco, Calif.: Jossey-Bass.