Available online at www.jlls.org

JOURNAL OF LANGUAGE AND LINGUISTIC STUDIES

ISSN: 1305-578X

Journal of Language and Linguistic Studies, 13(1), 10-26; 2017

Effects of morphological awareness on second language vocabulary knowledge

Fatma Demiray Akbulut[a]*

[a]*Abant Izzet Baysal University, Bolu, Turkey*

APA Citation:

Akbulut, D. F. (2017).Effects of Morphological Awareness on Second Language Vocabulary Knowledge.*Journal of Language and Linguistic Studies, 13*(1), 10-26.

Submission Date:22/02/2016

Acceptance Date:11/11/2016

Abstract

This research has analysed the impact of morphological treatment in English morphological awareness task. The main aim of this study is to understand the relationship between morphological awareness and vocabulary knowledge of university preparatory class students. In second language learning environment, fifty-two preparatory class students have participated in this study. The participants have been divided into two groups as experimental and control group. Experimental group was conducted three hours of morphological guideline and morpheme teaching treatment during twelve weeks whereas control group was exposed to traditional vocabulary teaching. To explore the effects of morphological treatment on English vocabulary acknowledgement, all participants completed Nation's Vocabulary Size Test (2001), language history questionnaire and Morphological Awareness Test (Part A and B). The relationship between the pre-tests and post-tests results has shown that experimental group acquired higher score on vocabulary recognition than control group after thirty-six-hours treatment. These findings indicate that the participants who obtained morphological treatment took in consideration the morphemes and vocabulary items better than the others who took traditional vocabulary teaching procedure.

*Keywords:*Morphological awareness; vocabulary teaching; morphology

1. Introduction

Vocabulary knowledge is the basis for any language teaching program as well as first language acquisition. In fact, its knowledge plays a very significant role in academic development, literature, second language learning and also daily life. As Nation (2001) proposed, there are four general goals which are important in a language classroom and second language education. These are language, ideas, skills and discourse. Respectively, the first goal, language includes vocabulary and lexical access which have revealed the significance of an adequate number of words to be able to use productively in the target language (Nation, 2001; Read, 2004; Tschirner, 2004; Zimmerman, 2005). The stronger oral vocabulary size means more successful readers because it affects reading and understanding ability (Biemiller and Slonim, 2001).

From this point of views, measuring an individual's vocabulary size may appear to be straightforward, yet it is extremely hard to precisely survey vocabulary information. There have been

*FatmaDemirayAkbulut. Tel.: +90-3742541000/2822
E-mail address: demirayfatma@gmail.com

numerous appraisals of vocabulary size for distinctive ages, and the sums differ immensely. Vocabulary learning strategies, lexical access models and different methods and techniques to develop vocabulary size and teaching vocabulary items effectively are still interest of lots of scholars or linguists. Recent years, there have been suggestions about using morphological cues to infer the word's meaning in L2 acquisition (Chang, Wagner, Muse, Chow, and Shu, 2005; Morin, 2003; Schiff and Calif, 2007). As Venezky (1999) proposed English is called as a morphophonemic language because of special relationship between phonology and morphology. Besides phonology, there is also strong relationship among morphology, sentence building, reading and comprehension. As long as individuals who are learning English as a second language realize morphemes in complex words, they may learn and acquire vocabulary items easily.

1.1. Theoretical background

1.1.1. Vocabulary Knowledge and Learning Strategies

All languages have a set of words which is the basis to understand and make sentences (Miller, 1991). Therefore, vocabulary gives us the opportunity to obtain the knowledge, to produce and comprehend the language (Anglin, 1993; Laufer and Nation, 1999). Vocabulary learning is subjectively requesting, consolidating the capacity to guide implications and realistic structures, the capacity to insert words into sentential and talk structures, and the capacity to apply words to this present reality.

This is on the grounds that lexicology in native language or second language convey the fundamental data and furthermore, the learners should understand that knowing more vocabulary will directly affect their capacity to utilize L2 learning capacity. Along these lines, vocabulary can lead the learners to be more decided about utilizing the dialect. Words are the essential bearers of importance, and it is broadly perceived that there is a solid relationship between the individual's vocabulary size and his/her general dialect capability. In this part, word learning mechanisms and strategies are not innate but emergent mechanism (Smith, 1999). Correspondingly, Samuelson and Smith (1998) clarified samples of word learning through memory and consideration and they declared that particular aptitudes for words are unjustified. There are different techniques to learn vocabulary and keep them in long-term memory such as Memory Strategies (MEM), Social Strategies (SOC), Cognitive Strategies (COG), Metacognitive Strategies (MET) and Determination Strategies (DET) (Chang, Wagner, Muse, Chow, and Shu; 2005; Morin, 2003; Schmitt, 1997; Schiff and Calif, 2007) and also various ways such as Experiential learning (Armbruster, Lehr, and Osborn, 2001), memorizing (Levin, Levin, Glasman and Nordwall, 1992), using words repeatedly (Long and Rule, 2004). Besides, direct teaching techniques of vocabulary, learning vocabulary from the context, understanding morphological knowledge to implicit the vocabulary meaning (McKeown, Beck, Omalson, and Perfetti, 1983; Miller, 1991; Nagy and Anderson, 1984; Wysocki and Jenkins, 1987; Zimmerman, 2005) are the ways to teach and learn vocabulary. Thus, morphological vocabulary teaching approach can be seen as a beneficial tool which can help L2 learners to gain unknown lexical items knowledge.

As Nation (2001) hypothesized lexical knowledge can enhance reading capacity, and afterword vocabulary size growth. In spite of the fact that decontextualized semantic data give the preparatory importance of vocabulary in a content, the exact significance of a word is framed in a particular setting. All the more, essentially, lexical implications and vocabulary building are built through particular content data. In fact, huge numbers of the words are connected to each other, and by comprehension of the word arrangement procedures in English or realizing one essential word may expand the vocabulary learning by few words. Furthermore, the importance of a word may not be

totally comprehended from one experience, but rather a sensible estimate of significance may be picked up by parsing a mind boggling word into its parts.

1.1.2. Morphology

Morphology has vital impact on the development and perception of English words. Morphemes, which incorporate roots, stems, prefixes, and suffixes, are the smallest parts of words that convey significance. Having the capacity to use this moderate level of dialect is integral to building an overwhelming vocabulary and grasping English content. Morphology alludes to the utilization of or the investigation of morphemes, the parts of words that pass on significance. The exact part of morphology differs with every dialect, contingent upon the word arrangement forms utilized as a part of every dialect. It is not in any case sure that there is an all-inclusive part of morphology that applies to all dialects (Libben&Jarema, 2004). In terms of English, morphemes supply the crude materials for making new words, and the dexterity of morphemes gives some portion of the generative force of the English dialect. Numerous new words are promptly reasonable on the grounds that they are made out of well-known morphemes. Kuo and Anderson (2006) recommended that morphological mindfulness is interlaced with different parts of metalinguistic mindfulness and etymological capability, particularly phonological mindfulness, syntactic mindfulness, and vocabulary information. They also added that morphological awareness in English becomes an increasingly important predictor of reading ability. Anglin (1993) suggested that readers can take part in morphological investigation to break down new words into constituent morphemes and in this way build their vocabulary items. In fact, both morphological mindfulness and vocabulary information have as of late risen as imperative indicators (Fracasso et al., 2014 ; Hall et al., 2014 ; Mellard& Fall, 2012 ; Mellard et al., 2010 ; Taylor et al., 2012 ;Tighe and Binder, 2013, To, Tighe and Binder, 2014).

The interest of the present study is to decide whether EFL learners in Turkey obtain the parts of morphological information to understand any reading text and comprehend or guess the meaning of the vocabulary knowledge. Pressley et al. (2007) reported that there was some proof that giving information about morphemes can enhance learner's capacity to gather the implications of words.

1.1.3. Measuring Morphology Skill

Usage-based methodology would represent the movement of morphology learning, on the grounds that development in morphology information can be seen to parallel the recurrence of the morphemes. More elevated amounts of morphological information have been connected to better perusing capacity in the early evaluations (Carlisle, 2003; Fowler&Liberman, 1995; Nagy et al., 2003; Singson, Mahony, and Mann, 2000).

Morphological comprehension in a worldwide sense is analysed with more exact separation of sorts of morphology ability showing up in later studies. Recent studies specifically concentrated on the acquisition of specific grammatical forms emphasizing morphology.

Learning and teaching strategies and techniques can assume an essential part to empower the learner's dynamic contribution to learning process. In this manner, examining instructional ways to deal with the utilization of morpheme or root word families in vocabulary, it can be supposed that the learners could build up their vocabulary better when vocabulary was taught through solid representations and morphological investigations as opposed to more traditional techniques such as learning or memorizing words by recording them or note taking without morphological analysis (Long and Rule, 2004). The utilization of morphological information as a potential methodology for vocabulary learning was the centre of the other studies.

Morin (2003) proposed the technique of utilizing morphological information to construe word implications, and with it, the need to create morphological mindfulness in the L2. She describes morphological awareness as the capacity to control morphemes and word development rules in a language. In another study, Anglin (1993) found that the learners could investigate the morphological structure of complex words which they have not really learned before to make sense of the implications.

Five different morphological word types in English are identified by Anglin (1993) as root words such as short, closet; inflected words such as smoking, reports; derived words such as shortish, treelet; literal compounds such as sunburn, birthday; and idioms such as pink lady=coctail. In this study, root words and derived words have been used to examine morphological awareness of learners.

1.1.4. Morphological Awareness

Maag (2007) identifies words in two categories such as monomorphemic and multimorphemic words. Monomorphemic words, (e.g, window, elephant) are additionally called as root words. Multimorphemic words, (e.g, suspicious, worthiness), are made out of linked morphemes. The term complex word is regularly utilized as a part of vocabulary studies for multimorphemic word. The researcher adds giving examples like in the words talking, talkative, backtalk, and double-talk, the root word talk is a common morpheme that connects the words semantically. Root words and stems are adjusted by inflectional and derivational morphemes that pass on syntactic and semantic subtle elements. Inflectional changes reflect linguistic elements of words, with changes of tense, person, and number. Word's class or part of speech do not change according to inflections; for example, chair /chairs, talk /talks /talked /talking. Changes in derivational morphology permit a root word or stem to involve different word classes, as in obvious (adjective), obviousness (noun), obviously (adverb). It incorporates information of derivational morphology, for example, prefixes (e.g., the dis-in disorganized to demonstrate the antonym of the first, organized), additions (e.g., the –er in seller to show a person who sells), and compounding (e.g., airplane to produce one word combining two words; air and plane). Then again, learning of inflectional morphology concentrates essentially on showing linguistic changes in words such as talk and talked. It was supposed that if a learner knows one word form, he/she can understand the other part of speech meanings (Nurhemida, 2007).

Morin (2003) considered Spanish classes to analyse the securing of derivational morphology - the usage of suffixes that can change the grammatical form and cause varieties in significance to explore the part of morphological awareness in creating vocabulary for L2 learners. The outcomes show that the system for building vocabulary by reliably concentrating on Spanish derivational morphology might yield quick advantages in the production area. In research area, morphological awareness studies on children's reading abilities and the proof of its increasing peculiarity to produce complex words (Deacon & Kirby, 2004 ; Kirby et al., 2012 ; Muse, 2005 ; Nagy, Berninger, & Abbott, 2006 ; Nagy, Berninger, Abbott, Vaughan,&Vermeulen, 2003 ; Singson, Mahony, & Mann, 2000 ; Tong, Deacon,Kirby, Cain, &Parrila, 2011); also on the basis of adults and the effects of morphological awareness on vocabulary size, word-based text writing, reading and comprehension ability (Apel, Diehm, &Apel, 2013 ;Fracasso, Bangs, & Binder, 2014 ; Herman, Gilbert Cote, Reilly,& Binder, 2013 ; McCutchen, Green, & Abbott, 2008; Tighe& Binder, 2013, 2014) have represented distinctive aspects on second language learning research area. Thus, for L2 learners, knowledge of English morphology makes a significant contribution to the vocabulary size, reading abilities, writing success and other language skills. The present study is aimed to investigate whether such morphological knowledge makes a significant contribution to English vocabulary learning for EFL students in Turkey.

1.2. Research Questions

Morphological awareness alludes to the attention to and access to the importance and structure of morphemes that are a piece of or identified with the word. In this study, the relationship between morphological awareness and vocabulary knowledge will be investigated for Turkish participants by emphasizing the focus on vocabulary teaching in the classroom. In this study, two sets of research questions were addressed:

1. Does morphological awareness contribute to vocabulary teaching and learning process in the classroom?
2. Does teaching vocabulary with morphological awareness strategy help learners to enlarge their vocabulary knowledge?

2. Method

In line with the theoretical framework presented beforehand, this study aims to investigate the role of morphological awareness in teaching vocabulary effectively. In this part, after participants have been presented, the pilot study and the instruments used in this study, the treatment which has been applied in the classroom and the results of the study will be contributed.

2.1. Sample / Participants

This study is supposed to analyse morphological awareness while learning vocabulary on undergraduate students of preparatory school in a state university in Turkey. They were originally 55 participants; however 3 people were dropped from the study because of missing data.

Students were enrolled in two different classes on the same level. Their level of English language was tested at the beginning of the semester by "Proficiency and Placement Test" applied by School of Foreign Languages Department. They were regular intermediate level English learners without learning disabilities. They had 5 hours of English language class every day, including listening, speaking, reading, writing, and Use of English classes. They had vocabulary practices inside Listening and Reading classes during 3 hours each week. Furthermore, with regard to Oxford Quick Placement Test, level of proficiency of the participants is intermediate level (M=44.75 out of 60). Participants from two classes were divided into an experimental group and a control group. The experimental group (N=29) was provided with morphology and vocabulary based teaching as a treatment. They were instructed prefixes, suffixes and root knowledge. Furthermore, they were given vocabulary teaching activities with collocations, synonyms and morphological analysis of words. On the other hand, control group (N=23) took traditional vocabulary teaching on the basis of note-taking, memorizing Turkish equivalents of English words, showing pictures, and using dictionary. Unlike control group, experimental group had to spend more time on learning and memorizing vocabulary items with different activities and exercises.

In total, 52 students (21 males and 31 females) participated in the study and have learned English approximately at the age of nearly 10 (M=9.98; SD= 4.11) and most of the learners are between 17-25 years old (M=19.00; SD = 1.76). 65.4 % of participants learned English at high school during 4 years. The majority reported that their reading and writing ability is better than speaking and speech comprehension ability as shown in Table 1.

Table1. Descriptive statistics of participants

	N	Minimum	Maximum	Mean	Sd
Age	52	17.00	25.0	19.00	1.7601
Age-of-acq	52	1.00	25.0	9.98	4.1135
Highschool-l2	52	.00	4.0	3.17	1.3243
College-l2	52	2.00	4.0	2.09	.3575
Reading	52	1.00	9.0	6.44	1.7310
Writing	52	1.00	9.0	6.13	1.5969
Speaking	52	1.00	8.0	4.55	1.4199
Speech-comp	52	1.00	9.0	5.40	1.4315
Express-yourself	52	1.00	10.0	5.55	2.0428
Vocabulary-knowledge	52	2.00	3.0	2.57	.4988
Reading-ability	52	1.00	3.0	2.23	.6749
Hours-of-reading	52	1.00	4.0	1.59	.7735
OxfordQuickPlacement Test (out of 60)	52	42	57	44.75	.3467
valid n (listwise)	52				

2.2. Pilot Study

In this research, pilot study with 22 participants were applied to see the instruments' reliability and validity measuring. For internal validity testing, "equivalence between pre- and post-tests" factor was analysed to see the frequency level of two lists (pre and post) of vocabulary items (each list consists of 38 words). Similarly, for measuring instrument reliability of questionnaire, and pre-post-tests "equivalence of forms of a test" was used. After this study, correlation coefficient was calculated and after some changes in the vocabulary lists, the last design has been used in the study. For this purpose, exploratory and confirmatory factor analysis was performed by statistics experts and internal consistency by Cronbach alpha coefficient was calculated. According to the results, internal consistency coefficient for Morphological awareness[†] pre-test (.87) and post-test (.79) respectively. The obtained data from the participants was analysed and instruments were used after bringing them their final shapes as applicable.

2.3. Instruments

This study is based on experimental research and the data have been observed quantatively. Control group design has been applied and pre-test/post-test design has been used to measure the effect of treatment. Both groups have taken the same pre-test and post-test but they haven't had the same treatment between these tests. In this research, all participants have been given a pre-test (Nation's Vocabulary Level Test and Morphological Awareness Test- Part 1) to be sure of comparability of both groups before their treatment and a post-test (Nation's Vocabulary Level Test –another version and Morphological Awareness Test- Part 2) to measure the effects of this treatment. Since this study is based on vocabulary knowledge and morphological awareness, to avoid any constraint to measure the real effect, immediate effect of treatment has been evaluated.

[†] Morphological Awareness Test was adapted from Maag's (2007) unpublished doctoral dissertation and then reliability and validity of the new instrument have been analysed by statistics experts (see also 2.2. Pilot Study).

2.3.1. Nation's Vocabulary Level Pre-test (2001)

The vocabulary level test was taken from Nation's Vocabulary Level Test and used in this research to decide participants' level of vocabulary size before and after treatment. The pre-test is divided into 3 as 2.000, 3.000, 5.000 word level. In each section, there are 10 different parts in which 6 different vocabulary items and 3 different meaning or synonyms. The participants are supposed to choose the correct item and write the number of each as in the example.

e.g.
1. business
2. clock _6_part of a house
3. horse _3_animals with four legs
4. pencil _4_something used for writing
5. shoe
6. wall

For each participant groups, there were no significant differences between vocabulary sizes of the participants. Experimental group received the score of 40.22; while control group received 41.17 (t = .21, p = .79).

Table 2. Paired Samples Statistics of Experimental Group and Control Group (Nation's Vocabulary Level Pre-Test)

Paired Samples Statistics						
		N	Mean	sd	t	p
Pair 1	EG	29	40.22	7.42	3.44	0.79
	CG	23	41.17	6.14		

EG: Experimental Group
CG: Control Group

2.3.2. Morphological Awareness Pre-test, Part 1 (A and B)

Morphological Awareness Test, Part 1 was presented to the participants. In this task, there are 38 high and low frequency vocabulary items and they would decide whether they know the meaning of these words and write Yes or No on the sheet. After answering Part A, they would switch to Part B and in this part; participants were instructed to find the root of each vocabulary items given with prefixes, suffixes or both. For instance, as the word "international", they have been expected to find the right answer as b.nation as root of the word.

e.g. International a. inter b. nation c. national,

2.3.3. Treatment

The participants from each group were instructed by the same teacher. Prior to treatment, all participants took Nation's Vocabulary Level Test and Morphological Awareness Tests. According to test scores of Vocabulary Level Test, all participants were found as in the same level (2000 words level). In Morphological Awareness Test, the mean scores for experimental group was (M=18.81) and for control group was (M=18.00). There were no significant difference between these two groups ((t (37) = 2.14, p =0.039, r=0.92) (see Table 1).

Table 3. Paired Samples Statistics of Experimental Group and Control Group (Morphological Awareness Test)

Paired Samples Statistics							
		N	Mean	sd	t	df	p
Pair 1	Pre-test EG-correct	38	18,815	6,268	2.143	37	0.039
	Pre-test CG-correct	38	18,000	5,457			

Pre-test EG-correct: Correct answers of Experimental Group for Pre-test
Pre-test CG-correct: Correct answers of Control Group for Pre-test

Vocabulary teaching was performed during 12 weeks for both groups. Experimental group was instructed 3 hours of morphology (prefix, suffix and root) knowledge each week and in total, they took 36 hours of morphological instruction. Moreover, they were given vocabulary teaching activities including word parts (nouns, adjectives, adverbs etc...), collocations, synonyms, antonyms, and practices about morphological analysis of words. On the other hand, control group took traditional vocabulary teaching activities including dictionary (English-English, English-Turkish) usage for unknown words, memorizing Turkish equivalents of English words, basic note-taking activities, showing pictures etc...In total, they were given vocabulary instruction 3 hours each week and in total 36 hours during 12 weeks, similarly to experimental group. Immediately after the instruction period, both groups were conducted the Vocabulary Level Test and Morphological Awareness Tests (see also 2.3.4, 2.3.5). Finally, after the data were collected, the results were analysed by the help of paired-samples t-test in SPSS-17.

2.3.4. Nation's Vocabulary Level Post-test (2001)

Nation's Vocabulary Level Post-test has been used to measure the comparison of pre-test applied prior to treatment. This test contains 140 vocabulary items and requires to find the closest meaning of the key words given in the multiple choice questions as in the example.

e.g. RESTORE: It has been restored.
a. said again
b. given to a different person
c. given a lower price
d. made like new again

The participants would be expected to answer the choice of "d" in this example.

2.3.5. Morphological Awareness Post-test, Part 2 (A and B)

After the treatment, Morphological Awareness Test Part 2 (A and B) was presented to all participants. In part A, they would decide whether they know the meaning of the words but this time they will see distinct 38 vocabulary items. These words were in high and low frequency mixture as in pre-test but different. In Part B, similarly to Pre-test Part B, participants were demanded to find the root of each vocabulary items given with prefixes, suffixes or both again.

This section describes how the study was conducted. It explains, in as much detail as possible, what happened and how you carried out the investigation. Examples of information to present in this section include a description of the training required to implement a new experimental teaching method and

the types of instructions to be provided to respondents who were asked to complete a survey. This section should also contain a realistic timetable for the different phases of the study.

3. Results and Discussion

This study was used to test the hypothesis whether increasing morphological awareness of second language learners leads to larger vocabulary knowledge or not. Teaching vocabulary items in terms of prefixes, suffixes or roots helps learners to keep their vocabulary knowledge in long-term memory. The results were based on vocabulary pre-and post-test items including morpheme categories such as prefixes and suffixes. Experimental and control group took these two tests. The findings obtained from pre-tests-part A for both groups showed that there were significant differences between both groups (Experimental Group -Eg afterword-): M= 10.81, SD= 7.04; Control Group -Cg, afterword-): M= 10.21, SD= 7.30) ((*t* (37) = 1.96, p =0.057, r=0.96). Similarly, Part B results for both groups showed no significant differences between them (Eg: M= 18.81, SD= 6.26; Cg: M= 18.00, SD= 5.45) ((*t* (37) = 2.14, p =0.039, r=0.92). Prior to treatment, these results show that the vocabulary performance of both groups were similar to each other (see also Table 4 and 5).

Table 4. Results of morphological awareness test-part A

Paired Samples Statistics and Differences							
		N	Mean	sd	*t*	df	p
pair 1	Pre-egyes	38	10.8158	7.04371	1.967	37	.057
	Pre-cgyes	38	10.2105	7.30479			
pair 2	Post-egyes	38	19.4211	5.28962	11.865	37	.000
	Post-cgyes	38	10.7105	6.86908			
pair 3	Pre-egyes	38	10.8158	7.04371	-12.550	37	.000
	Post-egyes	38	19.4211	5.28962			
pair 4	Pre-cgyes	38	10.2105	7.30479	-2.779	37	.009
	Post-cgyes	38	10.7105	6.86908			

Table 5. Results of morphological awareness test-part B

Paired Samples Statistics and Differences							
		N	Mean	sd	*t*	df	p
pair 1	Pre-egcorrect	38	18.8158	6.26813	2.143	37	.039
	Pre-cgcorrect	38	18.0000	5.45745			
pair 2	Post-egcorrect	38	24.2895	3.63101	8.116	37	.000
	Post-cgcorrect	38	17.4737	5.18697			
pair 3	Pre-egcorrect	38	18.8158	6.26813	-6.769	37	.000
	Post-egcorrect	38	24.2895	3.63101			
pair 4	Pre-cgcorrect	38	18.0000	5.45745	.394	37	.696
	Post-cgcorrect	38	17.4737	5.18697			

When post-test findings were analysed, it was found out that there were significant differences between two groups (Part A; Eg: M= 19.42, SD= 5.28; Cg: M=10.71, SD= 6.86) ((*t* (37) = 11.86, p

=0.000, r=0.75) (Part B; Eg: M=24.28; SD= 3.63; Cg: M= 17.47, SD= 5.18) ((*t* (37) = 8.11, p =0.000, r=0.75). As seen from the results, experimental group had higher scores after treatment than control group who took traditional vocabulary teaching.

As for the paired samples group analysis, both groups have been identified in terms of pre-test and post-test comparison to see in their own groups. According to the statistics, while experimental group had a significant difference between pre-test and post-test for Part A and B instruments (PART A, pre-test: M= 10.81, SD= 7.04; post-test: M= 19.42, SD=5,28) ((*t* (37) = -12.5514, p =0.000, r=0.80), (PART B, pre-test: M= 18.81, SD=6.26, post-test: M=24.28, SD=3.63) ((*t* (37) = -6.76, p =0.000, r=0.60) control group showed no significant differences between these tests before or after treatment (PART A, pre-test: M=10.21, SD=7.30; post-test: 10.71, SD=6.86) ((*t* (37) = -2.77, p =0.009, r=0.99), (PART B, pre-test: M=18.00, SD=5.45, post-test: M= 17.47, SD= 5.18) ((*t* (37) = 0.39, p =0.696, r=-.19) (see also Table 4 and 5).

These results show that morphological instruction and teaching morphemes increased second language learners' vocabulary comprehension and made them recognize vocabulary items intentionally and incidentally.

According to the results, there has been a significant relationship between vocabulary size and morphological awareness. Students in experimental group, performed significantly better in the Morphological Structure measure. One possible reason is that the vocabulary treatment during 12 weeks was sufficient for their general English proficiency. Students in control group didn't show any significant differences between before and after treatment. There is an improvement in their general vocabulary size; however, possible reason for this development is that their general English proficiency with other skills improved during 12 weeks, one semester. Another reason may relate to the nature of students' exposure to English with native speaker instructors and authentic English environment in Preparatory School. This background knowledge and improvement may help them to increase morphological structure knowledge. Supporting the results of the correlational analysis, the improvement of learners in morphology motivated them to learn more vocabulary items and this improvement made the learners realize that learning English vocabulary and morphology was interesting.

4. Conclusion

The current study investigated the vocabulary size of preparatory school students in Turkey, the nature of their morphological awareness and vocabulary size relationship.

The basic contribution of this research is the procurement of morphological approach in vocabulary teaching, and it explains the advantages of it by using short-period treatment. Morphological guideline for vocabulary learning in second language learners has shown that almost no development in remembering and identifying vocabulary items for participants who took traditional vocabulary instruction was observed. In particular, morpheme teaching based learning environment modifies word knowledge and recognition process. The outcomes suggest that morphological guideline alters the vocabulary acknowledgment process; along these lines, it is capable of affecting vocabulary learning.

The major impact of morphological direction is to recognize morphemes (prefixes, suffixes and root) and vocabulary acknowledgement process. The findings of this study propose that morphological guideline directs learners' consideration in a particular way characterizes learners' recognition on morpheme areas and directly helps them to find the relationship between their roots and meanings.

Utilizing a morphological technique helps the arrangement of a precise mental model and is not only useful for vocabulary acknowledgment but also helpful to improve reading ability, comprehension competency, writing development (by finding needed vocabulary items) and understanding speech production.

To sum up, the findings revealed that the learners had better performance at the Nation's Vocabulary Level Test at the end of the treatment. However, experimental group had better performance at the same test than control group. The results of the learners in experimental group were significantly better than the learners in control group who did not take any morphological vocabulary teaching treatment. In addition, the current study also found that there was a significant relationship between morphological awareness and vocabulary size.

The findings of this research emphasized a must to give the needed attention to the development of vocabulary size for better understanding in target language in Turkey. The results on the Nation's Vocabulary Level Test and Morphological Awareness Test revealed the aspects of vocabulary teaching and learning methods and techniques. According to the results, it can be concluded that morphological awareness tasks may contribute to vocabulary teaching and can be placed in English language teaching pedagogy and curriculum. In the classroom environment, the instructors may give explicit instruction and then learners can build their own morphological knowledge so that they can analyse the morphological structure of a new vocabulary item automatically.

This research revealed some considerable findings for the development of English vocabulary knowledge in Turkey. On the other hand, there are some weaknesses and limitations that should be considered for future research. The main problem was that this study is limited to only one state university. The performance scores gathered from the students may be different in another preparatory school in Turkey. The curriculum may be different in another university and the results may also differ from other students in a different environment and city because it could be difficult to access English in their surroundings. Another problem was that the treatment was limited to 12 weeks and this period may not be efficient for preparatory class learners. The instruments were also limited to only two tests (Nation's Vocabulary Level Test and Morphological Awareness Test) to measure vocabulary size. There should be other instruments that can be used during treatment (12 weeks) for each 4 weeks and the improvement should be observed step by step, until the semester finishes. Finally, future studies should focus on background vocabulary knowledge of learners more effectively with other instruments, ensuring that the test results depend upon morphological awareness. Besides, it is necessary to consider the treatment period more systematicallyand effectively, for example by clarifying the four-week-periods with different measurements. This analysis and separation will help researchers to see whether participants may perform differently or equally in each time limit and section.

References

Anglin,J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development, Serial No. 238,* 58(10).

Apel, K., Diehm , E., & Apel, L. (2013). Using multiple measures of morphological awareness to assess its relation to reading.*Topics in Language Disorders,33* (1), 42 – 56.

Armbruster, B.B., Lehr, F., & Osborn, J. (2001). Put reading first: The research building blocks for teaching children to read, kindergarten through grade 3. Washington, DC: National Institute for Literacy.

Biemiller A., &Slonim, N. (2001). Estimating root word vocabulary growth in normative and advantaged populations: Evidence for a common sequence of vocabulary acquisition. *Journal of Educational Psychology*, 93(3), 498–520.

Carlisle, J. F. (2003). Morphology matters in learning to read: A commentary. *ReadingPsychology, 24*, 291–322.

Chang, C. M., Wagner, R. K., Muse, A., W.-Y., B., & Chow, H. S. (2005).The role of morphological awareness in children's vocabulary acquisition in English.*AppliedPsycholinguistics, 26*, 415–435.

Deacon, S.H., & Kirby, J.R. (2004). Morphological awareness: Just "more phonological?" The roles of morphological and phonological awareness in reading development.*Applied Psycholinguistics*, 25, 223–238.

Fowler, A. E., &Liberman, I. Y. (1995).The role of phonology and orthography in morphological awareness.In L. B. Feldman (Ed.) *Morphological aspects of languageprocessing* (pp. 157–188).Hillsdale, NJ: Erlbaum.

Fracasso , L.E. , Bangs , K. , & Binder , K.S . (2014). The contributions of phonological and morphological awareness to literacy skills in the Adult Basic Education population. *Journal of Learning Disabilities.*Advance online publication.

Hall, R., Greenberg , D., Laures-Gore, J. , &Pae, H.K. (2014). The relationship between expressive vocabulary knowledge and reading skills for adult struggling readers.*Journal of Research in Reading,37* (S1), S87 – S100.

Herman , J. , Gilbert Cote , N. , Reilly , L. , & Binder , K.S. (2013). Literacy skill differences between adult native English and native Spanish speakers. *Journal of Research and Practice for AdultLiteracy, Secondary, and Basic Education,2* (3), 147 – 155.

Kirby, J., & Bowers, P. (2012). Morphology works. Research Monograph 41. Retrieved from http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/ww_morphology.pdf

Kuo, L. & Anderson, R. C. (2006). Morphological awareness and learning to read: A cross language perspective. *Educational Psychologist, 41*, 161–180.

Laufer, B., & Nation, P. (1999).A vocabulary-size test of controlled productive ability.*Language Testing, 16*, 33 - 51.

Levin, J. R., Levin, M. E., Glasman, L. D., & .Nordwall, M. B. (1992). Mnemonic vocabulary instruction: Additional effectiveness evidence. *ContemporaryEducational Psychology, 17*, 156-174.

Libben, G., &Jarema, G. (2004).Conceptions and questions concerning morphological processing.*Brain and Language, 90*, 2–8.

Long, D., & Rule, A. C. (2004).Learning vocabulary through morpheme word family object boxes.*Journal of Authentic Learning, 1*, 40-50.

Maag , L. K . (2007). *Measuring morphological awareness in adult readers: Implications for vocabulary development* (Unpublisheddoctoral dissertation) .University of Florida, Gainesville.

McCutchen , D. , Green , L. , & Abbott , R.D. (2008). Children's morphological knowledge: Links to literacy. *Reading Psychology,29* (4), 289 – 314.

McKeown, M. G., Beck, I., Omanson, R. C., &Perfetti, C. A. (1983). The effects of long-term vocabulary instruction on reading comprehension: A replication. *Journal of Reading Behaviour*, 15, 3–18.

Mellard, D. F., &Fall, E. (2012). Component model of reading comprehension for adult education participants.*Learning DisabilityQuarterly,35* (1), 10 – 23.

Mellard , D.F. , Fall , E. , & Woods , K.L. (2010). A path analysis of reading comprehension for adults with low literacy.*Journal of Learning Disabilities,43* (2), 154 – 165.

Muse , A.E . (2005). *The nature of morphological knowledge* (Unpublished

doctoral dissertation) . Florida State University, Tallahassee.

Miller, G. A. (1991). *The Science of Words.*New York: Scientific American Library.

Morin, R. (2003). Derivational morphological analysis as a strategy for vocabulary acquisition in Spanish.*The Modern Language Journal, 87*, 200-221.

Nagy, W. E., & Anderson, R. C. (1984). How many words are there in printed school English? *Reading Research Quarterly, 19*, 304–330.

Nagy, W., Berninger, V., Abbott, R., Vaughan, K., &Vermeulen, K. (2003).Relationship of morphology and other language skills to literacy skills in at-risk second-grade readers and at-risk fourth-grade writers.*Journal of Educational Psychology, 95, 7*30–742.

Nagy, W., Berninger, V. W., & Abbot, R. D. (2006).Contributions of morphology beyond phonology to literacy outcomes in upper-elementary and middle-school students.*Journalof Educational Psychology, 98*, 134–147.

Nation, I. S. P. (2001).*Learning vocabulary in another language.*Cambridge: Cambridge University Press.

Nurhemida,(2007). *The relationship between morphological awareness and English vocabulary knowledge of Indonesian senior high school students.*Unpublished master's thesis, University of Queensland, St Lucia, Australia.

Pressley, M., Disney, L., & Anderson, K. (2007).Landmark vocabulary instructional research and the vocabulary instructional research that makes sense now. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), Vocabulary acquisition: Implications for reading comprehension (pp. 205–232). New York: Guilford Press.

Read, J. (2004). Research in Teaching Vocabulary.*Annual Review of Applied Linguistics*, *24*, 146-161.

Samuelson, L. K., & Smith, L. B. (1998). Memory and attention make smart word learning: An alternative account of Akhtar, Carpenter and Tomasello. *Child Development, 69*, 94–104.

Schiff, R., &Calif, S. (2007). Role of phonological and morphological awareness in L2 oral word reading.*Language Learning, 57*(2), 271–298.

Schmitt, N., & McCarty, M. (1997).*Vocabulary Description, Acquisition and Pedagogy*. Cambridge: Cambridge University Press.

Singson, M., Mahony, D., & Mann, V. (2000). The relation between reading ability and morphological skills: Evidence from derivational suffixes. *Reading and Writing: Aninterdisciplinary journal, 12*, 219–252.

Smith, L. B. (1999). Children's noun learning: How general learning processes make specialized learning mechanisms. In B. MacWhinney (Ed.),*The emergence of language*, (pp. 277– 303). Mahwah, NJ: Erlbaum.

Taylor , N.A. , Greenberg , D. , Laures-Gore , J. , & Wise , J. (2012). Exploring the syntactic skills of struggling adult readers.*Readingand Writing,25* (6), 1385 – 1402.

Tighe , E.L. , & Binder , K.S. (2013). *An investigation of morphological awareness and processing in adults with low literacy.*AppliedPsycholinguistics: Advance online publication.

To , N.L. , Tighe , E.L. , & Binder , K.S . (2014). Investigating morphological

awareness and the processing of transparent and opaque words in adults with low literacy skills and in skilled readers . *Journal of Research in Reading.*Advance online publication.

Tong , X. , Deacon , S.H. , Kirby , J.R. , Cain , K. , &Parrila , R. (2011).

Morphological awareness: A key to understanding poor reading comprehension in English. *Journal of Educational Psychology,103* (3), 523 – 534.

Tschirner, E. (2004). Breadth of vocabulary and advanced English study: An empirical investigation. *Electronic Journal of Foreign Language Teaching, 1* (1), 27-39.

Venezky, R. (1999). The American way of spelling. New York: Guilford Press.

Wysocki, K., & Jenkins, J. R. (1987).Deriving word meanings through morphological generalization.*Reading Research Quarterly, 22*, 66–81.

Zimmerman, K. (2005). Newly placed versus continuing students: comparing vocabulary size.*TESL Reporter, 38*(1), 52 - 60.

Appendix A. Morphological awareness test (pre-test, part A and B)

Part A. Do you know the meaning of the word?

E.g. interesting __√__Yes _____ No
intervention _____Yes ___√_ No

	yes	no		yes	no
1. apparently			20. dependable		
2. international			21. discovery		
3. neighbourhood			22. enduring		
4. commendable			23. unhealthy		
5. passionately			24. unemployment		
6. reserved			25. renewable		
7. discredited			26. composition		
8. explanatory			27. publication		
9. generosity			28. indecision		
10. politely			29. bravery		
11. frustrating			30. mysterious		
12. stimulation			31. inspiration		
13. satisfactorily			32. protestation		
14. smelly			33. attractive		

15. fascinated			34. operationalize		
16. distraction			35. responsibility		
17. irrelevantly			36. irritating		
18. expensively			37. entertainment		
19. incomparable			38. commercial		

Part B.
In each line, the word in **bold** font was formed from one of the words on the right. Select the letter of the word on the right which is the basis for the **bold** word.

Examples:
__c**__ teacher** a. tea b. each c. teach
__a__ **undamaged** a. damage b. dam c. aged

	a	b	c
1. apparently	parent	rent	appear
2. international	inter	nation	national
3. neighbourhood	neighbour	hood	neigh
4. commendable	commend	mend	mendable
5. passionately	pass	passion	passionate
6. reserved	reserve	reservation	serve
7. discredited	disc	credit	edited
8. explanatory	explain	plane	planetary
9. generousity	genre	gender	generous
10. politely	politic	polite	politics
11. frustrating	rating	frustrate	rate
12. stimulation	stimulate	emulate	emulations
13. satisfactorily	satisfy	factor	factory
14. smelly	smell	melt	smelling
15. fascinated	fascine	fascinate	fascination
16. distraction	distract	ration	action
17. irrelevantly	irrelevant	relevant	relevantly
18. expensively	expend	pensive	pens
19. incomparable	compare	comp	comparable
20. dependable	depen	depend	able
21. discovery	disco	cover	discover
22. enduring	ring	during	endure
23. unhealthy	unhealth	healthy	health
24. unemployment	employ	employer	employment
25. renewable	newable	renew	new
26. composition	position	compose	sition
27. publication	publicity	public	publicy
28. indecision	incision	decide	indecent
29. bravery	raver	very	brave
30. mysterious	myster	mysteri	mystery
31. inspiration	spirited	inspire	ration
32.protestation	station	testate	protest
33.attractive	tract	attract	attraction
34.operationalize	rationalize	opera	operate

35.responsibility	response	responsible	sibilate
36.irritating	irritate	ritate	irritation
37.entertainment	enter	entertain	attainment
38.commercial	comm	mercial	commerce

Appendix B. Morphological awareness test (post-test, part A and B)

Part A.

	yes	no		yes	no
1. prescription			20. inventory		
2. indigestion			21. industrial		
3. multicultural			22. recycling		
4. freedom			23. adjustment		
5. participatory			24. provocation		
6. knowledgeable			25. civilisation		
7. miserable			26. uncomfortable		
8. dishonesty			27. investigate		
9. disorganised			28. robbery		
10. imagination			29. suspicious		
11. immaturity			30. obviousness		
12. nationality			31. endangered		
13. addressing			32. enjoyment		
14. encourageously			33. impossibility		
15. independent			34. intercontinental		
16. compensation			35. objectionable		
17. prestigious			36. truthfully		
18. commentator			37. undoubtedly		
19. liberation			38. incompetitively		

Part B.

	a	b	c
1. prescription	prescribe	scribe	scription
2. indigestion	digestion	digest	indigest
3. multicultural	culture	multi	cultural
4. freedom	freed	freely	free
5. participatory	participate	party	participation
6. knowledgeable	knowledge	ledge	know
7. miserable	misery	able	serable
8. dishonesty	dishonest	honest	honesty
9. disorganised	organisation	disorganize	organise
10. imagination	imaginary	aginate	imagine
11. immaturity	immature	mature	maturity
12. nationality	rational	nation	national
13. addressing	dress	address	dressing
14. encourageously	courage	encourage	courageous
15. independent	depend	dependent	pen
16. compensation	comp	compensate	sensation
17. prestigious	prestige	pretty	restigious
18. commentator	commend	comment	mentator
19. liberation	beration	liberate	ration

20. inventory	invent	ventory	inven
21. industrial	industry	dust	rial
22. recycling	recyc	cycle	cycling
23. adjustment	just	adjust	justment
24. provocation	prove	vocation	provoke
25. civilisation	civil	lisation	civilisa
26. uncomfortable	comfort	fortable	table
27. investigate	invent	vestigate	invest
28. robbery	rob	robber	bery
29. suspicious	suspicy	suspect	picious
30. obviousness	obvious	viousness	viously
31. endangered	danger	endanger	dangerous
32. enjoyment	joy	joyful	enjoyable
33. impossibility	possible	imposs	sibility
34. intercontinental	inter	continent	continental
35. objectionable	reject	jection	object
36. truthfully	true	truth	full
37. undoubtedly	undoubt	doubt	doubted
38. incompetitively	competition	competitive	compete

İkinci dil sözcük bilgisinde biçim birimsel farkındalığın etkileri

Öz

Bu çalışma İngilizce biçimbirimsel farkındalık görevi kapsamında biçimbirimsel yaklaşımın etkilerini analiz etmektedir. Çalışmanın asıl amacı üniversite hazırlık sınıfı öğrencilerinin biçimbirimsel farkındalık ve sözcük bilgileri arasındaki ilişkiyi anlamaktır. İkinci dil öğrenme ortamında, elli iki hazırlık sınıfı öğrencisi çalışmada yerini almaktadır. Katılımcılar deney grubu ve kontrol grubu olmak üzere iki gruba ayrılmışlardır. Kontrol grubunda geleneksel sözcük öğretim yöntemi uygulanırken, deney grubunda on iki hafta boyunca, haftada üç saat, biçimbirimsel ilkeler ve biçimbirim öğretim çalışmaları temel alınmıştır. İngilizce sözcük bilgisindeki biçimbirimsel yaklaşımın etkilerini araştırmak amacıyla tüm katılımcılar, Nation'ın Sözcük Bilgisi Testi (2001), dil geçmişi sormacası ve biçimbirimsel farkındalık testini (Bölüm A ve B) tamamlamışlardır. Ön test ve son test sonuçları arasındaki ilişki, deney grubunun otuz altı saat boyunca maruz kaldığı yaklaşımın ardından kontrol grubuna göre sözcük tanıma ve bilgi düzeyinde daha yüksek sonuçlar elde ettiklerini göstermektedir. Bu bulgular, biçimbirimsel açıdan sözcük öğretimi yapılan katılımcıların biçimbirimleri ve sözcükleri geleneksel sözcük öğretim sürecine maruz kalan katılımcılardan daha iyi bir şekilde edindiklerini göstermektedir.

*Anahtar Sözcükler:*Biçimbirimsel farkındalık; sözcük öğretimi; biçimbirim

AUTHOR BIODATA

FatmaDemirayAkbulut is Asst.Prof.Dr. in Translation and Interpreting Studies Department at AbantIzzetBaysal University, Bolu. She completed her bachelor and master degree at Gazi University, ELT Department and doctoral degree at Ankara University, Foreign Language Teaching Department. Her research area is Morphology, Morphological Awareness, Lexical Approach in ELT, Bilingualism, Multilingualism and Sociolinguistics. She has been currently researching English language teaching from multidisciplinary perspectives.