Lexical Knowledge and Its Effects on Language Proficiency: A Synonymous Study

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المعرفة المعجمية وتأثيرها في أتقان اللغة : دراسة مرادفة

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Abstract

Previous studies have proved that there is a strong connection between a language learner's vocabulary knowledge and their linguistic ability. It is believed that knowing one sense of a word is not sufficient, especially for academic learners and it is considered to be some sort of lacking lexical knowledge since learners cannot express their ideas/ thoughts using different style. Thus, investigating the size and depth of known words that learners obtained during their study period in Iraqi universities is a significant issue to predict their abilities in using the target language. The aim is to investigate the "vocabulary knowledge" and its use of a group of EFL fourth-stage learners in the "Department of English language and Literature/ College of Arts/ Mustansiriyah University". The used test that fulfills the study aims is based on Read's (2000, p.2) *Assessing Vocabulary*. The type of the test that Read (ibid) stated is commonly used in the field of EFL teaching and learning, and learners have acquainted with it many times through their period of study. The main purpose of the test is to look into the recognition and production levels of learners' lexical knowledge (ibid). A total number of 30 learners went through the two-parted test since a higher number of participants makes findings more accurate. The results obtained were not as expected, in general. Participants suffer from deficiency in the knowledge of vocabularies in connection with its breadth and depth.

Keywords: ***Lexical knowledge, language proficiency, EFL learners, recognition, production.***

المستخلص

أثبتت الدراسات السابقة أن العلاقة بين المعرفة المعجمية للغة والقدرة اللغوية علاقة وثيقة. من اكثر الاعتقادات الشائعة يبين ان معرفة معنى واحد للكلمة ليس كافيا لى الاطلاق، وخصوصا لمتعلمين اللغة الأكاديميين، ويعتبر نوعا من الافتقار إلى المعرفة المعجمية لأن المتعلمين ليس لهم القدرة للتعبير عن أفكارهم باستخدام اسالسيب مختلفة. لذا فإن التحقق من حجم وعمق الكلمات المكتسبة التي حصل عليها المتعلمون خلال فترة دراستهم في الجامعات العراقية يعد مسألة هامة لتقدير قدراتهم في استخدام اللغة المطلوبة. الهدف الاساسي هو دراسة "معرفة مفردات اللغة" واستخدامها لدى مجموعة من طلاب المرحلة الرابعة في "قسم اللغة الإنجليزية وآدابها/ كلية الآداب/ الجامعة المستنصرية". وتعتمد الدراسة على الاختبار المستخدم الذي يحقق أهدافها لتقييم اداء المشتركين للمفردات. إن نوع الاختبار الذي ذكره "ريد" (٢٠٠٠ , ص ٢) شائع الاستخدام في مجال تعليم وتعلم اللغة الإنجليزية كلغة أجنبية، ويعتبر شائعا لدى متعلموا اللغة لانهم اطلعوا عليه مرات عدة خلال فترة دراستهم. الهدف الاساسي من الاختبار هو التحقق من مستويات التعرف (المعنى) والانتاج (الاستخدام) للكلمات الانكليزية لدى المتعلمين. وقد بلغ عدد المشاركين في الاختبار المكون من جزأين ٣٠ متعلمًا. النتائج التي تم الحصول عليها لم تكن كما كان مفترضا ان تكون في هذا الدراسة. حيث ان النتائج اثبتت ان المشاركون يعانون من نقص في معرفة المفردات من حيث اتساعها وعمقها.

الكلمات المفتاحية: **المعرفة المعجمية, اتقان اللغة , متعلمي اللغى الانكليزية كلغة أجنبية, التمييز, الاخراج.**

I. Introduction

Lexical knowledge is considered to be one of the major problems that learners face in the process of learning a new language or in language acquisition. It is emphasized that grammatical errors do not disturb communication more than lexical knowledge, as stated by Schmitt (2000, p.55) "lexical knowledge is central to communicative competence and to the acquisition of a second language". Lewis (1993, p.25) stated that when learners travel, they carry dictionaries as an important source for communication, but not grammar books.

Read (2000, pp. 1-3), on the other hand, described the knowledge of vocabularies as "building blocks of language". He (ibid) emphasized that assessing lexical knowledge of foreign language learners is both "necessary and reasonably straightforward".

A greater difficulty which makes it even harder for learners is, unlike grammar, that there are no tangible rules for words which can be followed in order to develop their abilities. Also, learners cannot focus on certain types of words and leave other words under the idea of familiarity or most familiar words. Each word in English has a multiple meaning, or as Saeed (2016, pp. 11-17) describes it, multiple senses. There is the literal meaning which is the meaning of everyday use of a given word, or the basic meaning, and the non-literal meaning which means the other sense of the usual meaning of a given word (Saeed, ibid). Additionally, languages, in general, are updatable, and many new words are added or invented in everyday activities to fill the needs of speakers.

II. Vocabulary: Defined

Vocabulary knowledge refers to the known words which are being used to communicate effectively. It can be described as an oral use of words in communication such as speaking and listening, and reading texts which are used in print, according to Crystal (1987, pp. 251-253). On the other hand, Neuman and Dwyer (2009, p. 385) define vocabulary knowledge as *"words we must know to communicate effectively; words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)"*. Furthermore, Richards (2015) states that lexical knowledge besides grammar is thought to be as the building blocks of language proficiency. He (ibid) adds that a learner with sufficient lexical knowledge is well equipped to develop their skills in reading, listening, writing and speaking.

III. Importance of Vocabulary in EFL

Various studies testify the remarkable role of lexical knowledge and the size of vocabulary in reading, writing, and listening abilities. Goulden et al. (1990, p. 342), for instance, states that "measures of vocabulary size -particularly the size of academic vocabulary- are important indicators of the ability of second language learners to achieve academic success". Moreover, Laufer (1998, p. 256) avows that one of the most effective factors which directly influences reading comprehension and the fluency of speech is vocabulary size.

It is believed that even if a learner is capable of using all the grammatical rules of English correctly, he still cannot use it without the knowledge base of vocabularies. Lexical knowledge is the "basic tool" for delivering meaning. EFL learners are less exposed to language than native speakers of that language, therefore, foreign language learners should study the most frequent words of English to increase their vocabulary inventory

so they can use them in real life situations, according to Schmitt and McCarthy (1997, p.9), and as shown in the following table (1) below.

Table 1

Vocabulary Size	Text Coverage
15851	97.8%
6,000	89.9%
5,000	88.7%
4,000	86.8%
3,000	**84.0%**
2,000	79.7%
1,000	72.0%

Corpus-based studies have proved that the notion that there are some useful or frequent words used more than others is true. Nation (2002, pp.11-12) argued that there are words which can be categorized according to their frequency and communicative dimensions. He (ibid) categorized vocabularies according to its high-frequent use, academic, technical and low-frequency words.

Many studies have been conducted concerning lexical knowledge and its effect on foreign language speakers. Read (2000, p.74), for example, states "a great deal of the research has been done by experts on reading". He argues that there is a strong connection between lexical knowledge and reading comprehension.

IV. Word's Knowledge

One of the difficult questions that EFL learners might face is what the knowledge of a single word implies? In fact, Knowing a word involves knowing its form, meaning, and use in different context, according to Nation (2001, p.35). He states that "words are not isolated units of language, but fit into many interlocking systems and levels, there are many things to know about any particular word and there are many degrees of knowing", (ibid, p.23). Read (2000, p. 26) cited a chart found in Nation (1990, p.31). The following chart gives a fair completed model which can answer the previous question of what it means to know a word? Chart 1 below exhibits both aspects of knowing a word, receptive and productive.

FORM		
Spoken form	R	What does the word sound like?
	P	How is the word pronounced?
Written form	R	What does the word look like?
	P	How is the word written or spelt?
POSITION		
Grammatical patterns	R	In what patterns does the word occur?
	P	In what patterns must we use the word?
Collocations	R	What words or types of words can be expected before and after the word?
	P	What words or types of words must we use with this word?
FUNCTION		
Frequency	R	How common is the word?
	P	How often should the word be used?
Appropriateness	R	Where would we expect to meet this word?
	P	Where can this word be used?
MEANING		
Concept	R	What does this word mean?
	P	What word should be used to express this meaning?
Associations	R	What other words does this word make us think of?
	P	What other words could we use instead of this one?

Chart 1

This model gives a wide interpretation about the knowledge behind knowing and use of a word. The model above can be used as the basis for building up a test and test items in different studies for lexical knowledge investigation purposes. In this study, it can be used as the basis for word meaning, function, and word position since it is in the form of a written test and has no relation to any spoken form of words.

V. Words and Synonyms

Knowing a word also implies that a learner has to be capable of knowing its different meaning or senses in different contexts. According to Veronis (1998, pp.1-40), a word sense can be defined as one of the meanings of a word. He (ibid) argues that there are two sets of words: words that have a large set of multiple meanings or senses, and a small set with one meaning. For instance, a dictionary might list over 10 different senses of the word "Play", and each sense has its own meaning in different context. Thus, an EFL learner has to have the ability of using and utilizing words and word meanings/ senses in different registers of speech or writing.

In linguistics, a synonym, according to Maja (2009, p. 193), is a word or a phrase that holds the exact or nearly the same meaning of another word. For instance, words as *begin*, *start*, *commence*, and *initiate*, are all have the same meaning separately, but they are considered to be synonyms if they give the same sense.

The importance of knowing the different senses of a given word is a crucial factor for EFL learners in their academic learning, and for their carrier as a whole. Knowing the various senses of a word enables the learner to increase their writing and speaking skills, reading comprehension and text coverage, essay writing style, etc. Schmitt (2015) emphasizes that "achieving certain levels and

qualities of lexical knowledge is one of the important prerequisites for successful language learning". Webb (2020, p. 66) argues that the qualitative aspect (referring to the ability of using a word appropriately and efficiently) of lexical knowledge has a great impact on language proficiency. He (ibid, p. 371) states that measuring the depth of lexical knowledge determines test takers knowledge about words. Webb (ibid) also emphasizes that "The importance of knowing vocabulary deeply is based mainly on two ideas: (1) L2 learners have to know different aspects of word knowledge in order to fulfill communicative tasks (i.e., reading, listening, writing, and speaking), and (2) advanced learners who can use vocabulary proficiently can demonstrate different aspects of knowledge of words".

VI. Testing Lexical knowledge

Lexical knowledge can be investigated depending on various criteria. The criteria of validity and reliability have a great impact on the test and the test design, according to Nation and Webb (2011, pp. 514-568). Nation (ibid) argues that the test designer must consider the purpose of the test, and the type of knowledge to be investigated.

On the other hand, Perez (2005, p.551) states that students' performance in the test can be used as an indicator of the general status of their abilities regarding the knowledge of vocabulary.

There are several forms of lexical knowledge tests throughout literature. Each form is designed to test a certain object or purpose of lexical knowledge. For example, Heaton's (1988, p.51-62) test design is intended to test word formation and synonyms, while he (ibid) claims that rearrangement and definition test items are artificial and rather to be avoided.

Read (2000, p. 9), on the other hand, classified the assessment of lexical knowledge into three dimensions, "discrete vs. embedded, selective vs. comprehensive, context-independent vs context-dependent". He (2000, p. 4) states that the most important aspect in vocabulary testing is to determine whether learners know the exact meaning of words (i.e. to recognize the difference between *soup* from *soap*) and can recognize them in different contexts, especially outside classrooms or in real life communication.

The vocabulary size test proposed by Nation and Beglar (2007) measures the written receptive knowledge of lexical knowledge size, and it is divided into 14 groups (14,000 word families) of words level according to its familiarity. The words included in the test are the most frequent 14,000 words of English. The whole test consists of 140 items, and each item includes 10 words form each level or group. Nation and Beglar (2007, p. 11) states "in order to answer the items, the test-takers have to have a moderately developed idea of the meaning of the word".

Concerning this study, Read's (2000, p.2) test items are more suitable for investigating the lexical knowledge of students since it deals with receptive and productive level of vocabularies, and the test design provided in Read's (ibid) is commonly known in the field of EFL, plus it provides a wide range of different test items that measures different kind of lexical knowledge at different level.

VII. Methodology

VII.I. The Test

The test is intended to investigate vocabulary knowledge at the "recognition and production" level, reading comprehension, and the breadth and depth of using vocabularies of the fourth stage students. The test design is based on proposed test items by Read's (2000, p.2) *assessing vocabulary.* Vocabularies included in the test are taken from Coxhead's (2000) academic word list (AWL). Coxhead has divided the word families into 10 sub-lists according to its familiarity starting from the most frequent word families in sub-list 1 (i.e. analyze) till least frequent word families in sub-list 10 (i.e. albeit).

The test is divided into two parts; the first part investigates students' lexical knowledge at the recognition level and it consists of two questions, while the second investigates students' lexical knowledge at the production level and it consists of two questions as well. The total number of items included in the two-parted test is 70 items. The first question is in the form of multiple-choice test, the second is in the form of a matching test, the third is in the form of a completion test, and the fourth is in the form of words equivalent test.

VII.II. Validity and Reliability

Making a good lexical knowledge investigation is based on two important factors, *reliability* and *validity*, according to Milton (2009: 17). He (ibid) strongly emphasised that these two factors need to be considered in the creation of any test.

Validity means that a test should assess what it is supposed to be assessed and not something else (Milton 2009: 17). He argues that there are three different types of validity: content validity,

construct validity, and face validity. The first type refers to whether a test has the appropriate content to assess what is supposed to be assessed. The second type, which is related to construct validity, refers to whether the test assesses the skill which is assumed or supposed to assess. The third type, face validity, refers to whether a test makes a reasonable realization to test takers of what it is supposed to be assessed.

Reliability refers to the capability of tests to assess something consistently and accurately, whether the results are of similar scores over time. This means that a leaner should score the same in the test in different periods (e.g. 2-3 days after). Milton (2009) argues that objective tests (e.g. multiple choice) give better reliability than the subjective one. For instance, conducting a research paper which is based on a subjective judgment of the writer might give unreliable results.

The equation that is used to measure the reliability of the test is the formula 20, developed by Kurder and Richardson (1937: 151-160). This equation measures the internal consistency of the reliability of a test.

The KR-20 formula is as follows:

$$r = \frac{K}{K-1}\left(1 - \frac{\sum_{j=1}^{k} pj\ qj}{\sigma^2}\right)$$

The value $\rho KR_{20} = 0.96$ shows that the test has high reliability (See appendixes C).

Where

k = number of questions

p_j = number of people in the sample who answered question j correctly

q_j = number of people in the sample who didn't answer question j correctly

σ^2 = variance of the total scores of all the people taking the test = VARP(R1) where R1 = array containing the total scores of all the people taking the test.
Values range from 0 to 1. A high value indicates reliability; while too high a value (in excess of .90) indicates a homogeneous test.

K = 4
p_j = 9 participants answered correctly, which equals to 9\20 = 0.45
q_j = 11 participants answered incorrectly, which equals to 11\20 = 0.55
pq = P_j * q_j = 0.45 * 0.55= 0.25
σ^2 = total number of the first test scores \ total number of the second test scores. 913\938 = 0.97

$$P_{KR20} = \frac{4}{4-1}\left(1 - \frac{\sum_{j=1}^{k} 0.25}{0.97}\right) = 1.3\ (1 - 0.26) = 1.3\ (0.74) = 0.96$$

The value ρKR_{20} = 0.96 shows that the test has high reliability.

VIII. Sample

A total number of 30 participants from the fourth stage students are involved in this investigation. The sample is taken from the "Department of English language and Literature/ College of Arts, Mustansiriyah University of the academic year 2019-2020". Native speakers of Arabic have been chosen as participants having the same age and the same EFL backgrounds since they are all studied in the same department and received a similar type of education.

IX. Analysis of Results

The first important issue is how to determine that participants know a word in a particular level of investigation. It is worth mentioning that all questions, of recognition or production, depend entirely on context declassification or, in other words, the

interpretation of words in context. It is believed that each word of English has different meanings (senses) in different contexts. For example, the word climate could be interpreted as environment or weather, depending on its occurrence in a context. Participants, therefore, need to choose, write or answer the suitable meaning in that specified context. Matching test is intended to investigate participants' lexical knowledge at the breadth level only since word families included in the test have no context. The completion and the equivalent test, and even multiple-choice test, on the other hand, require participants to use their mental abilities in declassifying context first and then choose or answer with a suitable word which fits the situation.

Results are presented in the form charts using a statistical instrument called sigmaplot (A software package for "scientific graphing" and "data analysis") in order to draw a clear judgments and findings. The scores will be calculated as follows:

a- 2 marks for the correct choice or answer.
b- 2 marks for the correct synonym or vocabulary (production)
c- 1 mark for the nearest explanation (production level).
d- 1 mark for a correct answer with a spelling mistake.
e- Zero mark for wrong answers.

X. Results

The analysis of the results obtained from the test gave a clue about students' lexical knowledge, their abilities in declassifying context, and their accuracy of using synonyms.

It is worth mentioning that the students at this level were expected to easily deal with word families provided in sub-lists 4 and 5 of the AWL, and to avoid doing some random choices concerning the items included in the test, especially at the

productive part of the test. The results differed a lot form the expectations of the study, as it indicates that students have some sort of lack in lexical knowledge and their abilities in figuring out the exact meaning of words in different contexts.

Chart 2 and 3 below show the average scores of participants at the recognition and production level, and their final score. They also illustrate that participants' performance at the recognition level is better than their performance at the production level. The highest score recorded at the recognition level is 66 out of 80, while the highest score at the production level is 57 out of 80 by the same participant who had 123 out of 160 as a final score. The mean score of participants' final score is 55 out of 160, which equals to 34%.

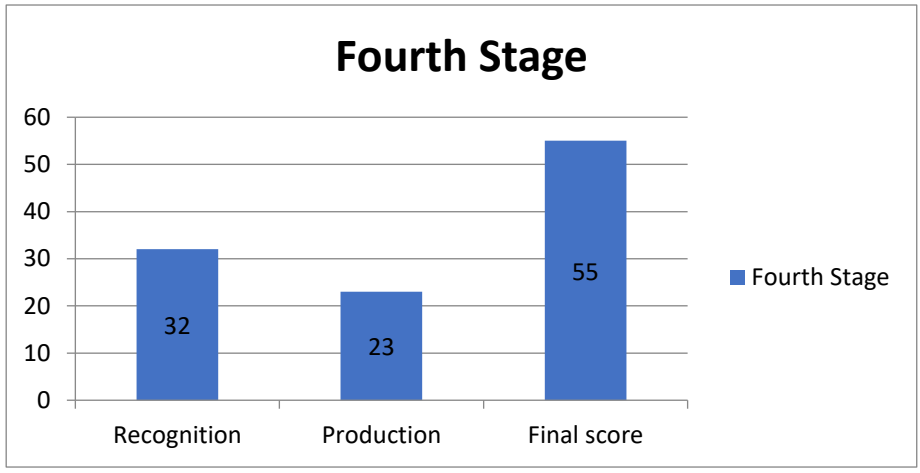
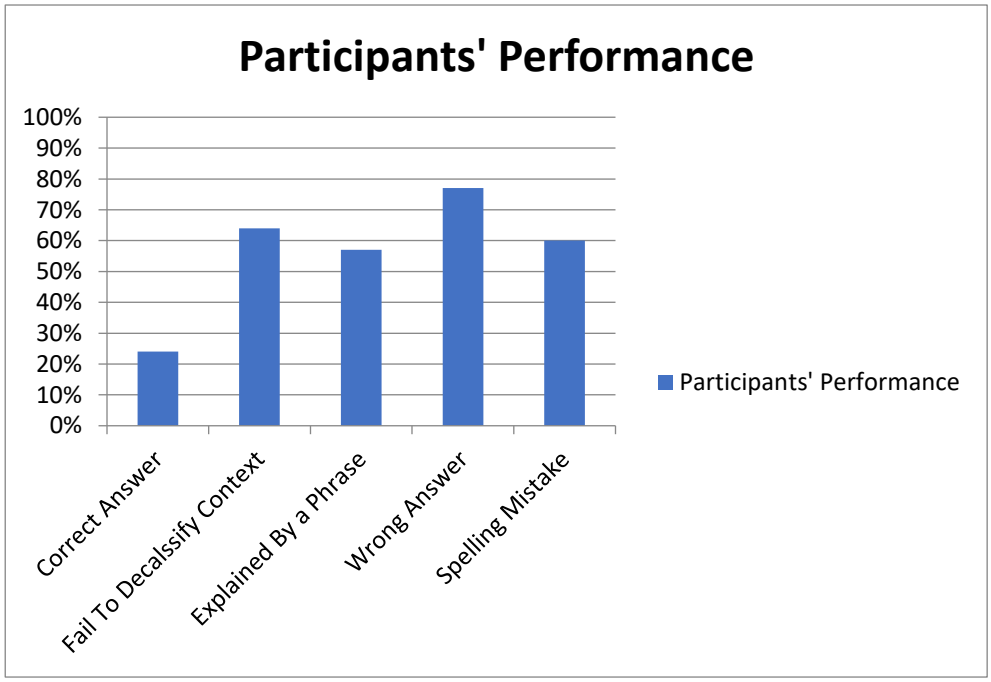


Chart 2: Average Scores of the Fourth Stage

Chart 3 below shows participants' performance and accuracy for using the exact meaning of word families at the context of occurrence. The chart is divided into 5 categories, and each category illustrates one of the aims of the test. For example, the correct answer category illustrates the total number of participants who successfully wrote the right answer without spelling mistakes

or using a phrase; this includes the recognition and the production parts, except for the matching test which does not require writing any word. The next category (failing to declassify context) illustrates participants who fail to declassifying context, which means they fail to figure out the intended meaning (sense) of that word family at that context. Some of the participants did choose the synonym of the required word but without paying attention to the context it occurred in, for example, the word transferred (item No. 4, Q1) could give the sense of move but not at that context (See appendix B). Next category (Explained by a phrase) shows the total number of participants who explained the meaning of the given word by a phrase, and they failed to write its exact synonym (for the 4th question\ Production only).



Participants' Performance in the Test

XI. Conclusion

The results which have been previously discussed concerning lexical knowledge and its effects on reading comprehension and language proficiency are related to Iraqi EFL university learners. It proved, in general, that students' knowledge regarding the breadth and depth of vocabularies did not reach the required standards to make these students efficient language users. There should be some sort of modifications in the input which enable the students to expand the knowledge they have in order to use the language properly. It is mentioned previously throughout this study that lexical knowledge has a greater impact on language proficiency than grammar or any other field of linguistics. Therefore, lacking the knowledge of vocabulary may hinder students' ambitions and limit their language capacity. The study, however, doesn't emphasis that lexical knowledge is the only thing needs to be taught or improved but emphasizes that this aspect of language needs to be taken under considerations.

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