Sara Hamid Hawass

# EFL vocabulary acquisition through meaningful linguistic contexts. An investigation into the role of mental lexicon Sara Hamid Hawass 

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#### Abstract

The purpose of this study is to recognise the effect of context on learning new vocabulary in an EFL college reading course and how contextualized vocabulary presentation could help in developing the mental lexicon in EFL readers. The research method followed in this study is quasi-experimental, involving a pretest-post-test control group design. Sixty EFL college students were chosen by convenience to participate in this study. Using a standardised vocabulary test and a vocabulary development intervention derived from the caveats of the natural approach and involving a five-phase instructional paradigm, the experimental group performance on the vocabulary test was compared to a traditionally taught control group. Findings showed that both groups were nearly homogeneous on pretesting. The results also indicated that the experimental group participants outperformed the control group in vocabulary learning on post testing as they improved from pretesting to post testing. Conclusions and implications for research were given in the end.


Keywords: Vocabulary learning; linguistic context; contextualisation; personalisation; mental lexicon

> اكتساب مفردات اللغة الإتجليزية كلفة أجنبية من خلال اللمبياق اللغوي ذي المعنـى. استقصصاء

تلهف هذه الدر اسة إلى التعرف على تأنير السياق على تعلم المفردات الجدبدة في مقرر لتعليم القراءة باللغة الإنجليزية كلغة أجنبية للى طلاب قسم اللغة الإنجليزية في المستوى الجامعي وكيف يمكن أن يساعد تقديم المفردات في سياقها اللغوي على تطوير المعجم الذهني لاى قراء اللغة الإنجليزية كلغة أجنبية. منهج البحث المتبع في هذه الارراسة هو المنهج شبه التجريبي ، والذي بنطوي على تصميم تجريبي من نوع مجمو عة ضابطة واختبار قبلي واختبار بعدي. تم اختيار عينة البحث بطريقة المواءمة حيث اختير سنون طالبًا جامعيًا متخصصون في اللغة الإنجليزية كلغة أجنبية للمشاركة في هذه الار اسة. وباستخدام اختبار مقنن للمفردات وبرنامج لتطوير المفردات قائم على مبادئ النهج الطبيعي لاكتساب اللغة و الذي يتضمن نموذجاً تعليمياً خماسي المر احل ، تمت مقارنة أداء المجمو عة التجريبية على اختبار المفردات باستخدام مجموعة ضابطة درست نفس المقرر بالطريقة التقليدية. أظهرت النتائج أن كلا المجمو عتين كانتا متجانستين نقريباً في نتائجهما على الاختبار القبلي. أنثارت النتائج أيضًا إلى أن المشاركين في المجمو عة التجريبية تفوقوا على المجمو عة الضابطة في تعلم اللـفردات في الاختبار البعدي؛ حيث تحسن أداؤهم أيضًا في الاختبار البعدي مقارنة بتنائج الاختبار القبلي. وختاماً، عرضت الانـي الباحثة الاستنتاجات الختامية من الار اسة، وتضميناتها للاسترشاد بها في البحوث اللمستقبلية في نهاية

الكلمات المفتّاحية: تعلم المفردات. اللياق اللغوي؛ اللتساوق اللغوي؛ إضفاء الطابع الثخصي؛ المعجم

## Introduction

Vocabulary is instrumental to language learning and is viewed by linguists as pillars of communication without which interlocution is impossible. In this respect, Wilkins, a British linguist, adeptly observes that ...

There is not much value in being able to produce grammatical sentences if one has not got the vocabulary that is needed to convey what one wishes to say ... While without grammar, very little can be conveyed, without vocabulary nothing can be conveyed (Wilkins, 1972, p. 97).
Harmer (1991, p. 153) explains this point further, noting that the relationship between vocabulary and other aspects of language such as grammar and structure is that of kin and kindred, or even more related as bone and flesh:

If language structure makes up the skeleton of language, then it is vocabulary that provides the vital organs and flesh. An ability to manipulate grammatical structure does not have any potential meaning unless words are used.
Given that learning a foreign language vocabulary is one of the most essential phases in foreign language learning, the fundamental goal of language learning is yet to understand language and successfully use it in everyday communication and interactions. In addition, the acquisition of vocabulary, as one would expect, was recurrently demonstrated to be a significant predictor of listening and reading comprehension, as well as speaking skills (Baumann, 2009; Laufer, 1992; Nation, 1993). This expectation proposes that the degree of reading competence predicts student's ability to effectively derive vocabulary meaning from context.

Previous studies indicate that for language learners, of different ages, poor reading comprehension skills will induce to a significant reduction in lexical inference (Bengeleil and Paribakht 2004; Cain et al. 2004). Consequently this shows the significant correlation between achieving adequate vocabulary knowledge and effective reading comprehension(Alavi and Kaivanpanah 2009; Cain et al. 2004; Paribakht and Wesche, 2006; Tannenbaum et al. 2006).

In this way, it is worth mentioning that the skills of acquiring and using language vocabulary are not only limited to enhancing proficiency in English language skills, but also have a significant impact on the

## Sara Hamid Hawass

mental lexicon of the students, which also play a significant part in enabling effective communication in EFL learners.

It is evident from such studies, and more cited elsewhere, that there are many difficulties experienced by students in acquiring and using language vocabulary, due to the use of traditional methods of teaching with these students.

## Rationale of the Study

1. Lack of organized research on the relationship between mental lexicon and vocabulary acquisition in the extant research literature;
2. The cognitive load imposed by the difficult to manage lexical corpus in the target language;
3. Recent arguments by researchers (e.g., Omaggio, 1986, p. 91) claim that the second/foreign language curriculum should be designed, developed and implemented, based on the concept of language proficiency. This means that there is no instruction and testing procedures without reflecting the actual use of the language in its context.
4. The inability of foreign language learners to recall from the mental lexicon all vocabulary learned, notwithstanding their exposure to context, teaching and assessment.

## Research questions:

The main research questions that underlie this study can tacitly be formulated as follows:

- What is the effect of context on learning new vocabulary in an EFL college reading course?
- How does contextualized vocabulary presentation help in developing the mental lexicon in EFL readers?


## Literature review

Mastering vocabulary enables language learners/users to express their thoughts and ideas properly and perfectly, and helps them understand what is heard or read. Then again, it helps them to establish real and effective communication. According to Richard and Rodgers (2001):

Vocabulary is the most important component of language proficiency, providing students with the basic rules to help them speak, listen, read and write, while the lack of good language proficiency may hinder students from using their language in everyday activities.
Due to the significance of language vocabulary in learning language skills, there is a great deal of research that has been done to develop these skills in EFL students of varied proficiency standards or in
different educational levels using different pedagogical approaches. For instance, Abdel Gawad (2019) aimed to develop English vocabulary by developing a binary coding programme to develop the use of English vocabulary in the second grade of the preparatory phase, where the results were favourable to the experimental group.

So, too, Muhammad (2018) launched another study to inspect how the development of the English language words could be furthered by using comic strips in the course of speaking and reading English. Using an experimental design with a sample of EFL college students, the study findings revealed that the technique of integrating vocabulary learning in comic strips could be effective in improving the mental lexicon in EFL students who were trained on acquiring vocabulary through comic strips.

In this line, Suleiman (2017) studied how to develop the mental lexicon of EFL students through using self-autonomous learning strategies. The researcher developed a programme to support the mental lexicon of EFL young students to learn English language and improve their writing competences. Results of this research demonstrated that the experimental group that learned the self-autonomous learning strategies for building up their mental lexicon out-performed the control group, who learned vocabulary in a conventional way.

In this vein, too, Ali (2016) sought to improve English vocabulary through a computer-based program designed to enrich and boost up the vocabulary and grammar in EFL students as well as to improve their attitudes towards vocabulary learning. Results showed that suggested program was effective in enhancing the mental lexicon of English in the experimental group.

Furthermore, Tony (2014) conducted further research with a view to enriching primacy schoolers' mental lexicons with teaching strategies intended for the development of the mental lexicon. In addition, Tony's strategies aimed at helping EFL learners to acquire and use the vocabulary contextually in reading comprehension. Results indicated significant differences between experimental participants and the control group subjects with respect to enhanced contextualised vocabulary learning in favour of the experimental group.

To improve and easily expedite vocabulary learning, students learning a foreign language can apply numerous methods in order to retain new vocabulary. However, many of those who want to study vocabulary quickly may abandon the new-fangled techniques or, even worse, stop trying to fully learn the language, possibly due to the

## Sara Hamid Hawass

frustration of what they consider to be poor results of vocabulary retention and retrieval.

Although there are many approaches that EFL students can adopt for vocabulary learning, many of them are widely studied in the pertinent literature. Of these approaches, some of the most extensively investigated take account of the mnemonic keyword method (Rodriguez and Sadoski, 2000), the word association method (Runquist, 1966), and contextualised vocabulary acquisition through inferencing and contextualised word study methods (Nagy, et al., 1987; 1985; Nash and Snowling 2006; Yildirim, et al., 2014).

A common feature describing the variety of methods commonly used in the study of vocabulary is that these methods claim that foreign language students will be able to adequately retain and retrieve new vocabulary with some degree of facility. In addition to acquiring new vocabulary (i.e. knowledge of word meaning), students anticipate that they will be able to use the vocabulary, understand communicative messages, and be engaged in the interlocution process using the newly acquired vocabulary (i.e. understanding what is communicated).

The use of linguistic contextual information and/or contextual clues to recognize unfamiliar words in the students' native language has been extensively researched. Findings from these research show that in cases where unfamiliar vocabulary appears, learners can often pinpoint the meaning of an unknown word from contextual clues extant in language discourse (Nagy, et al. 1987). Here arises the importance of comprehensible input (Long, 1996; Mackey, Abbuhl, \& Gass, 2013). EFL learners actually need to be exposed to sufficient comprehensible input to be able to effectively learn the target vocabulary (Krashen 1989).

According to Krashen (1982; 1989), the input hypothesis was proposed to indicate how much vocabulary foreign languages should be exposed to. According to Tang (2017),

Comprehensible input is language input that can be understood by learners despite their not understanding all the words and structures in it. It is described as one level above that of the learners if it can only just be understood ... giving learners this kind of input helps them acquire language naturally rather than learn it consciously. (p. 16)
Language input, to be comprehensible needs to be meaningful and interesting to the target learners; yet, it needs not be ineludibly grammatically sequenced. In this regard, Long (1981) reinforced the need for providing meaningful and contextual interaction between the learner
and the message. Therefore, language researchers emphasized the significant role of interaction in making vocabulary presentation more liable to produce meaningful and communicative messages, since "the structure of the interaction itself could be modified to make input more comprehensible for learners" (Mackey \& Abbuhl, 2005, p. 208). In communicative situations, language users may change, modify or enhance their linguistic interactions in dialogues or written communication in order to work out a communication difficulty or to wholly comprehend the communicative message (Ortega, 2009). Thus, it is these discourse modifications or adjustments in linguistic interactions that language users may resort to for negotiating meaning to initiate comprehensible input, and eventually, recall it in meaningful production of language, i.e., meaningfully communicative output (Long, 1996; Mackey, Abbuhl, \& Gass, 2013).

Language learners should be subjected to a reasonable amount of vocabulary that they can master based on their current level of proficiency (the $i+1$ hypothesis); however, if this amount is too much beyond the learners' levels $(i+2)$, or too little behind their current level $(i+0)$, they are more likely to get demotivated to learn the target vocabulary. Adequate comprehensible input should be made available through providing authentic language material in communicative situations that provide sufficient linguistic, situational or cultural context for vocabulary to be learnable

This utilisation of context does not mean that successful acquisition of vocabulary or identification of the mental lexicon will occur solely with contextual prompts (Bikle, 2005; de la Garza \& Harris, 2017; Fomeche, 2014). Numerous factors, such as linguistic knowledge or morphological signals can also contribute to how effective a learning strategy is for the students (Bengeleil, 2001; Kleinman, 2017; Köylü, 2016; Nassaji, 2004; Tang, 2017). Contextual learning of vocabulary helps to support students' performance in reading and writing because context increases the learners' language awareness of vocabulary usage , as well as enhances their communicative use of the target language by improving their use of linguistic rules for effective communication (Fomeche, 2014), their mental lexicon and short-term memory (Lockiewicz \& Jaskulska, 2015). The knowledge and activation of English vocabulary was proven to facilitate access to the mental lexicon, or in other words, the retrieval of vocabulary in use while being engaged in real life communication memory (Baddeley, Gathercole, \& Papagno, 1998; Cheung, 1996; Gathercole, Service, Hitch, Adams, \& Martin, 1999;

Masoura \& Gathercole, 2005; Coltheart, 2006; Lockiewicz \& Jaskulska, 2015).

Context information should also facilitate language comprehension orally or aurally, as critical information is provided by discourse. Contextualisation of vocabulary presentation should allow the reader to create meaning based on what learners have in their mental lexicons, i.e., schemata about the target language vocabulary, and the contextual information available for the reader/listener during language processing (Bilke, 2005; de la Garza \& Harris, 2017; Tang, 2017). For comprehension to take place successfully, it is necessary for a reader or listener to develop their contextual understanding of new vocabulary in order to understand the basic notions/concepts conveyed by the new words, not just understand individual units (e.g. words) as suggested in their superficial level of presentation (Kintsch, 1998).

## Assumptions

Based on an extensive review of extant literature on second/foreign language vocabulary acquisition theory (e.g., Bilke, 2005; de la Garza \& Harris, 2017; Kleinman, 2017; Krashen, 1989; Laufer, 1992; 2001; Lockiewicz \& Jaskulska, 2015; Paribakht \& Wesche, 2006), the following assumptions have been deduced:

1. When EFL students are provided sufficient vocabulary items in the target language with sufficient context in that language, the students will eventually succeed to learn the new vocabulary.
2. Students' failure to learn the new target language vocabulary may be due to insufficient context in the target language.
3. Providing sufficient lexical information about new vocabulary helps to allow construction of integrated lexical schemata that help learners to infer the meaning of the unfamiliar vocabulary in context.

## Research Hypotheses:

The following hypotheses were formulated to be tested in this study:

1. There are no statistically significant differences between the pretest mean scores of the experimental group and the control group in vocabulary learning.
2. There is a statistically significant difference between the pretest mean scores and the post-test mean scores of the experimental group in vocabulary learning in favour of the experimental group at the 0.01 level.
3. There is a statistically significant difference between the posttest mean scores of the experimental group and the control group in vocabulary learning in favour of the experimental group at the 0.01 level.

## Research Methodology

Research design
The study adopted a pretest-post-test control group design in a quasi-experimental setting.

## Sample

The researcher used a purposively selected sample of 60 students (30 students for the experimental group and 30 students for the control group) in first year EFL college students, English Department, faculty of Arts., Mansoura University. Random sampling did not apply, because group assignment depended on university registration procedures. Thus, the effect of covariates had to be considered.

Preliminary descriptive data about the participants indicates that the two research groups, the experimental group and the control group, were similar in terms of various grade averages and achievement levels, as suggested by their previous grade scripts. As just mentioned, enrollment in the class determined the arbitrary selection of students within the experimental and control groups.

## Measures

Both groups were exposed to a vocabulary test at the beginning of the semester prior to experimentation and a modified version of the test was administered at the end of the semester to both research groups.

The Vocabulary Test is based on the reading materials in the Reading course syllabus. The test is comprised of 30 items that test vocabulary in use, and word synonyms using hints to provide sufficient context for the question items. The test was validated by sending it out to a jury of five language instructors who were involved in teaching reading and vocabulary. Suggestions as to the amendment of the question items were taken into account. The test's internal reliability was determined using the Kuder-Richardson Formula 20 (KR-20). This reliability method was used because the test items are dichotomous, i.e., the test items were developed based on a right-wrong criterion with multiple choices. The $r \mathrm{KR} 20=0.70$, which is a relatively acceptable co-efficient of reliability.

The experimental group was exposed to a vocabulary development intervention, which sought to develop the students' mental vocabulary, while the control group was exposed to the traditional teaching method in a reading class.

## Sara Hamid Hawass

## Materials and Procedures

Before the inception of the intervention for the experimental group and traditional teaching for the control group, students were given a vocabulary test.

The participants in the experimental group were requested to take part in the study via informed consent forms in which the procedures of the study were explained. The learning modules were based on the syllabus of a freshman reading course in the department of English, the same course syllabus used in the traditional teaching method, principally a Grammar-Translation Method-inspired pedagogy, which was employed with the control group with minimal emphasis on vocabulary development. In the control group, new words were given in bilingual word lists out of context.

Generically, the vocabulary in the reading texts was presented to the experimental group students in context where students followed a typical Natural Approach class. That is, new vocabulary was given through demonstration in simple sentences and with direct association of language earlier acquired. Crudely put, vocabulary is taught through known words, demonstration, authentic objects (realia), pictures, and miming. The experimental reading syllabus is based on situations or topics, not usually on linguistic structures with emphasis on contextual and topical teaching. The purpose of vocabulary learning is for students to engage in communication. Therefore, students needed to learn how to ask questions as well as answer them. The instructional model for the experimental group followed four cyclical phases summarised in the following diagram:


Figure 1: The Vocabulary-in-Context Instructional Model
The instructional model is a cycle of teaching/learning processes that is repeated in every reading class during the semester. The cycle of teaching moves into five phases as follows:

## 1. The presentation phase:

- New vocabulary in each class is presented on the board.
- The instructor models a native-like pronunciation of new vocabulary.
- The instructor reads out simple, direct dictionary descriptions of the target vocabulary, demonstrates, explains, or mimes , when applicable.
- Students are requested to read aloud sentences that include the key target words from the reading text.
- The instructor answers any questions regarding the meaning of the target words in English.
- The instructor asks questions of individual students using the new vocabulary to refer to their personal lives, if possible.


## 2. Receptive Recall

- Students are asked to recognize the target vocabulary items before they are requested to produce them in isolation or in meaningful sentences.
- Mnemonics are used to help students retain and retrieve target vocabulary.
- A Reading Activity with individual selection of multiple choice items, is followed by whole class review.
- The instructor asks Yes/No questions about the target vocabulary items, requests students to play a word association game, provides open-ended sentence completions, and/or asks short, personalized questions (oral component).


## 3. Productive Recall

- Giving the target vocabulary on data show or the board, the instructor gives the same descriptions used in the presentation phase in a varying order.
- The instructor asks questions involving target vocabulary use , and asks questions about the reading text. Volunteer students are called upon to supply correct words/responses to the instructor's questions.


## 4. Personalization

- Students individually respond in writing to some personalized questions in English, using all the lexicon introduced in the presentation.
- Students, in fifteen minutes, produce short paragraphs in which they use the learned vocabulary.
- Students are requested to write emails or letters where they use the target vocabulary in meaningful sentences.
Omaggio (1982, p.4) defines personalization as a communicative activity that enables students to contribute their own thoughts, reactions, and opinions about a topic. Tschirner (1992, p.507) maintains that helping learners to use the learned target vocabulary in the expression of their personal views or in real life communicative situations can create an atmosphere of acceptance, which, in turn, can motivate them to produce the target vocabulary in meaningful situations, and to participate more actively in the EFL learning environment.


## 5. Evaluation

- Students are given short vocabulary usage quizzes, including Cloze tests, fill-ins, matching, short dialogues, etc.
- Students peer-correct their answer sheets.
- The instructor oversees students' quizzes and peer corrections to maintain fairness, honesty, objectivity and the consistent use of corrective feedback.


## Results

To verify Hypothesis One which goes "There are no statistically significant differences between the pre-test mean scores of the experimental group and the control group in vocabulary learning", a t-test for independent samples was used to compare the mean scores of the two groups on the vocabulary test.

Table (1): The t-test Results of the vocabulary test, comparing the control and experimental groups' mean scores.

| Group | $\boldsymbol{N}$ | Mean | SD | DF | $\boldsymbol{t}$-Value |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Control Group | 30 | 9.70 | 3.087 | 58 | $4.65 *$ |  |
| Experimental Group | 30 | 10.57 | 1.61 |  |  |  |

* Significant at the 0.01 level

Table (1) shows that the calculated t-value (4.65) is statistically insignificant at the 0.01 level of confidence. Therefore, it becomes evident that there are no statistically significant differences between the mean scores of the experimental and control groups on the vocabulary test. So, the first hypothesis is confirmed, indicating that there were no statistically significant differences between the experimental group and the control group participants. This shows that both groups were relatively homogeneous at the inception of the study.

To verify Hypothesis Two stating that "There is a statistically significant difference between the pre-test mean scores and the post-test mean scores of the experimental group in vocabulary learning in favour of the experimental group at the 0.01 level", a t-test for independent

## into the role of mental lexicon

samples was run to compare the mean scores of the two groups on the vocabulary test in the post-test.

Table (2): t-test results of the vocabulary test, comparing the experimental groups' mean scores from pretesting to post-testing.

| Group | $\boldsymbol{n}$ | Mean | SD | D.F. | $\boldsymbol{t}$-Value | Effect Size $\left(\eta^{2}\right)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Control | 30 | 11.07 | 2.81 | 58 | $5.89 *$ | $0.604 * *$ |
| Experimental | 30 | 15.23 | 2.67 |  |  |  |

* Significant at the 0.01 level
** High effect size
The following figure demonstrates the difference between the mean scores of both test administrations for the experimental group.


Figure (2): Comparison of Mean Scores of the experimental Groups on pretesting-posttesting comparison

The in-context vocabulary intervention manipulated for teaching reading and vocabulary in this study could provide class and home time for students to help them develop their mental lexicon. As students learn the new vocabulary, they need to have a classroom environment that motivates them to develop their mental lexicon through mnemonics, receptive recall, productive recall and personalisation.

Finally, to verify Hypothesis Three, which states that "There is a statistically significant difference between the post-test mean scores of the experimental group and the control group in vocabulary learning in favour of the experimental group at the 0.01 level". To test the validity of this hypothesis, a t-test for independent samples was used to compare the mean scores of the two groups in vocabulary learning on posttesting. The results of the t -test proved to be statistically consistent with the hypothesis.

Table (3): t-Test Results of All Creative Writing Skill Post- Test Comparing the Control and Experimental Groups' Mean Scores.

Sara Hamid Hawass

| Group | $\boldsymbol{n}$ | Mean | SD | D.F. | $\boldsymbol{t}$-Value | Effect Size $\left(\eta^{2}\right)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Control | 30 | 55.27 | 10.59 | 58 | $9.14^{*}$ | $0.76 * *$ |
| Experimental | 30 | 77.20 | 7.78 |  |  |  |

* Significant at the 0.01 level
** High effect size
Table (3) above displayed that the calculated t-value (9.14) is statistically significant at the 0.01 level of confidence. Therefore, it becomes evident that there is a statistically significant difference between the mean scores of the experimental and control groups on the vocabulary learning post-test in favour of the experimental group. Therefore, the third hypothesis is confirmed. Furthermore, the effect size value was high where $\eta 2=0.76$. Thus, the vocabulary in-context intervention had a high effect on the participants' performance. The following figure demonstrates the difference between the mean scores of the post administration for both groups.


Figure (3): Comparison of mean scores of the two groups in the post administration of the vocabulary test.

## Conclusion

The statistical analysis demonstrated that the intervention for developing the new vocabulary through meaningful context proved to be effective, as the experimental group mean scores on post-testing improved significantly in favour of the experimental group in the overall test at the 0.01 level of confidence. Results of the study indicated that the use of the instructional model functioned as an effective teaching and learning tool supportive to the process of vocabulary acquisition. The students in the experimental group were actively and interactively involved in the learning process, increasing their use of active vocabulary in meaningful and communicative contexts. With regard to the groups' performance throughout the experiment, there were statistically significant differences between the experimental participants who were taught vocabulary in-context, and the control group participants who
were taught the new vocabulary out-of-context through isolated bilingual word lists.

The instructional model starts with the presentation of target vocabulary as a comprehensible input. In other words, vocabulary was presented preliminarily for learners with ample opportunity for them to make sense of what they see, and to notice the contexts in which the new vocabulary is used meaningfully and communicatively. For this lexical input to be transferred to the mental lexicon, simply to be retained, an entwined network of factors should have worked together to make lexical input become intake, and to get intake be recycled in new sentences as output through receptive recall first, and then productive recall. This result is consistent with prior research (Krashen, 1989; Krashen \& Terrell, 1983; Omaggio, 1986; Shrum \& Glisan, 2005). The network of factors includes contextualisation of target vocabulary through the presentation of this vocabulary in meaningful contexts, the use of authentic materials, and the use of students' corrective feedback (Bilke, 2005; de la Garza \& Harris, 2017; Fomeche, 2014; Kleinman, 2017; Köylü, 2016; Tang, 2017).

The findings further confirm the validity of the assumption that it is not only the contextualisation of target vocabulary that matters, but also the personalisation of the learning process. Meaningful production and recycling of new words, idioms and phrases in sentences that communicate the learners' personal needs could significantly improve students' lexical retention and performance. The contextualisation and personalization process of vocabulary learning could be conducive to improved mental lexicon, improved lexical retention, and improved lexical retrieval in meaningful and communicative ways, a result congruent with prior research findings (Ginns, et al., 2013; Kartal, 2010; Klee \& Barnes-Karol, 2006; Kleinman, 2017; Moreno \& Mayer, 2004; Shrum \& Glisan, 2005; Sweller et al., 2011).

The results of the control group participants indicate that they fail to learn the new target language vocabulary. This failure could be attributed to the lack of sufficient context or meaningful learning, since they heavily relied on memorization of word lists and out-of-context learning of new vocabulary and translation into their native language, thereby providing no or little lexical information about word collocations and derivatives in an isolated fashion (Laufer \& Hulstijn, 2001 ; Lee \& VanPatten, 2003; Tang, 2017; Terrell, 1986).

In conclusion, this study, among an array of previous studies, strongly favours the teaching of vocabulary in a foreign language through
contextualisation and personalisation. The more contextualized and personalised vocabulary is presented, the better students learn and retrieve vocabulary, as they can use it in communicative situations. Therefore, teachers need to allow more comprehensible input to be presented systematically in context. They also should avoid the use of out-of-context translated word lists with a view to emphasizing functional use of vocabulary within specific contexts and for communicative purposes.

Overall, the implications of the present study findings suggest the use of the instructional model that builds on the comprehensible input hypothesis, and the mental lexicon assumptions stated in this study.

The study also affords future research suggestions such as conducting more controlled research on the various factors that influence target vocabulary learning such as linguistic knowledge, lexical information, recall of word collocations and morphological signals. Further research needs to be conducted to investigate the role of cognitive load on vocabulary acquisition in EFL contexts with regard to comprehensible input and communicative output.

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## Appendix

## Vocabulary Test

This is a vocabulary test. The test consists of 30 multiple choice questions with a time limit of 30 minutes.

You are always able to skip a question and return to it later.
A. Each of the following sentences has a blank space and four words are given below. Fill in the blank with a suitable word in each sentence.

1. The company wanted the most qualified $\qquad$ for the job.
a) personnel
b) persons
c) persona
d) impersonation
2. He $\qquad$ her that she would pass.
a) insured
b) ensured
c) assumed
d) assured
3. Although there is $\qquad$ gunfire, there is no stiff resistance to the revolutionary army.
a) bitter
b) meagre
c) continuous
d) sporadic
4. The $\qquad$ chosen for construction of the building is in the heart of the city.
a) cite
b) slight
c) sight
d) site
5. $\qquad$ pollution control measures are expensive, many industries hesitate to adopt them.
a) Although
b) However
c) Because
d) Despite
6. It is a story of two men and a batch of $\qquad$ armoured cars.
a) deceased
b) diseased
c) decrepit
d) defeated

## Sara Hamid Hawass

## B. Which of these is the best definition of the given word?

7. Which of these is the best definition of the word distended?
a) removed
b) enlarged
c) shrunken
d) distracted
8. After exercising, the girls' softball team stated, "We're famished!" Famished means...
a) Rested.
b) Hungry
c) Excited.
d) Ready.
9. The new-born baby was enamoured with the rattle. Enamoured means...
a) Fascinated.
b) Happy.
c) Unsure what to do.
d) Aggravated.
10. When having a problem, it is best to dissect the situation, then act.

Dissect means..
a) Control.
b) Discuss.
c) Ignore.
d) Analyze.
11. The bouncer's countenance discouraged brawls. Countenance means...
a) Message.
b) Presence.
c) Expression.
d) Strength.
12. The child apprised her father's authority and behaved herself in church. Apprised means...
a) Appreciated.
b) Compromised.
c) Defied.
d) Noted.
13. The aural component of balance is critical for postural control during ambulation. Aural means related to the...
a) Eyes.
b) Ears.
c) Nose.
d) Hands.
14. The wound exhibited signs of copious drainage requiring medical intervention. Copious means...
a) Minimal.
b) Clear.
c) Maximal.
d) Foul.
15. The scientist was able to evoke powerful emotions from her audience. Evoke means...
a) Sell.
b) Calm.
c) Call forth.
d) Exaggerate.
16. The official exhibited a heedless attitude when dealing with the dignitaries. Heedless means...
a) Thoughtless.
b) Pleasant.
c) Friendly.
d) Bitter.
17. The general tried to instil the hope of victory in his troops. Instil means...
a) Infuse.
b) Delay.
c) Inscribe.
d) Indict.
18. The winning team of the World Series often has a jovial attitude. Jovial means...
a) Merry.
b) Sad.
c) Sombre.
d) Laborious.
19. A lyre was played in ancient Rome. The lyre is a...
a) Stringed instrument in the harp class.
b) Percussion instrument.
c) Wind instrument in the wind class.
d) Rhythmical percussion device.
20. To examine in detail with careful or critical attention
a) Parched
b) Insurance
c) Scrutinize
d) Criterion
21. To relinquish the right or claim to a throne
a) Myriad
b) Jubilation
c) Abdicate
d) Divulge
22. Action that is performed by or affects only one side
a) Unilateral
b) Obsidian
c) Voyager
d) Encompassing
23. A small, rounded hill
a) Pioneer
b) Knoll
c) Stoic
d) Plateau
24. To stimulate or shock with an electric current
a) Galvanize
b) Escapist
c) Boisterous
d) Roustabout
25. Dried out with heat, extremely thirsty
a) Nepotism
b) Parched
c) Occurrence
d) Descend
26. A confusing and difficult problem or question
a) Grunge
b) Ethereal
c) Conundrum
d) Myriad
27. Hard and black volcanic glass
a) Plastic
b) Wood
c) Obsidian
d) Aluminium
28. Being on guard, watchful
a) Melee
b) Digression
c) Wary
d) Deficient
29. To behave uncontrollably and disruptively
a) Soothing
b) Amok
c) Recommendation
d) Consoling
30.Living in solitary; avoiding others
a) Reclusive
b) Knoll
c) Vindicate
d) Punctilious

