



Investigating Iraqi Students' Knowledge of Cognitive Vocabulary

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ABSTRACT

Teaching vocabulary successfully considered challenges in teaching English for Iraqi EFL students. Instructors of English language concentrate on teaching grammar. As a result of concerning grammar as a priority, vocabulary has been ignored. Some instructors have neglected the truth that learning vocabulary is needed for students, not only to enhance their realization but also to help them in other fields like grammar. In process of learning English language, vocabulary is regarded as a basic concept for a communication, Iraqi students face difficulties in memorizing and understanding vocabularies. The present study achieved in the Department of English, College of Education for Women, University of Baghdad in academic year 2020-2021. The sample of this study was thirty first year students. To perform the objective of this study, the researcher used pre and posttests to collect data. These data was analyzed by SPSS program. The study concluded that Iraqi EFL students face difficulties in using correct vocabularies.

Keywords: *Cognitive Vocabulary, Productive Vocabulary, Receptive Vocabulary, Vocabulary.*

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INTRODUCTION

Studies have shown that the amount of students' vocabulary have great effect on the four language skills (writing, reading, speaking, and listening) Nasser [1]. Thus, vocabulary consider the foundation of English language. According to Shen [2] the EFL students' realization of vocabulary leads learning of all four skills that means there is a close connection between EFL students' understanding about vocabulary, Communication and reading knowledge. Successful vocabulary building regarded at the focus of English as a foreign language learning. Since the English language is rich in vocabulary and is taught as a second language in Iraq, students hope to enhance their vocabulary by using the four language teaching strategies (writing, reading, speaking, and listening) [3]. In fact, more vocabulary amount shows better reading achievements.

Research Questions

This study answers the following questions

- Do cognitive strategies of vocabulary learning consider effective on Iraqi students' knowledge in process of learning English?
- Can cognitive theory solve the difficulties of understanding vocabularies?

The aim of the study

This study aims at

- Examining students' knowledge, usefulness and assessment of EFL vocabulary learning strategies, which will produce effective understanding of learning strategies on Iraqi students' vocabulary development.
- Identifying and describing difficulties that face Iraqi students.

The problem of the study

This study tries to identify the problem that Iraqi students are facing difficulties from realizing the meaning of words and how to cope with some vocabularies which have no explicit translation in their native language. Therefore, this problem leads to many difficulties related to understanding and identifying this vocabulary to be used correctly.

Literature view

What is vocabulary?

Almuhammadi [4] argues that teaching vocabulary to EFL students consider a fundamental aspect which contains not only the meaning and direct definition of a word, but also the suitable use in the contexts.

Donghua [5] asserts that meaning of vocabulary contains two sides, grammatical and dictionary meanings. Among these two sides the grammatical meaning shows that lexical grammar notion or connection, like part of speech, the plural

form and singular form, tenses of verb; dictionary meaning indicates the meaning of single words occur in the dictionary. That means “the grammatical meaning of words is usually changeable, but its dictionary meaning are the same” [5].

Liu [6] assumes that words cannot occur as isolated concepts in a language. this shows that words are interlinked in a complete system in which awareness of different level of a lexical theme is needed to perform suitable understanding in reading or listening or even create ideas correctly in writing and speaking.

Schmit [7] states that vocabulary shows awareness of words containing discussions of word meanings. In this scope a word is characterized as a sound or a group of sounds, or may be its performance in writing or printing that achieves and notifies a meaning. Therefore, Elashhab [8] confirms that in order to learn a word is not only to know its meaning but also to know its written form, spoken form, register, grammatical behavior, association, frequency and collection. Elashhab [8] calls these features “word knowledge”. That why learning vocabulary is considered a big challenge.

Aitchison [9] states that students face difficulties through the process of learning the meaning of words. So, there are two distinctions between the meaning in a particular context and its specific meaning and “the fuzzy meaning assumption”. Otherwise, Schmit [10] confirms that word has confusing meaning, this leads to the fact that words have various meanings in a different context.

Neuman and Dwyer [11] define vocabulary as words we have known to communicate, “Words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)”.

Hiebert and Kamil [12] define vocabularies as a knowledge that the student must has about the meaning of word. Nation [13] and Thornbury [14] declare that vocabularies consider as a key linguistic element in writing.

Word knowledge may be more than understanding the meaning and spelling of the word. Thornbury [14] affirms that knowing the meaning of a word means both, knowing its dictionary meaning and knowing the other words that usually link the words, such as collocations. That means words can be used with each other in quite firm way in English [15] connotations or the connection which words or expressions have according to the speakers of the language [15].

Nation [16] proposes a comprehensible discussion about the item “know a word”, that is “the learning burden of a word”. He argues that word knowledge can be divided into three categories: form, meaning and use, each one of these categories is assorted into three kinds, as result of that including nine kinds of word knowledge as shown in figure (1). Each of these categories contain.

According to Nation [16], word knowledge involves

- a) Meaning: to understand the meaning of words.
- b) Written form: to realise the spelling of words.
- c) Spoken form: to realise the pronunciation of words.
- d) Part of speech: to realise if words are verbs, adverbs, nouns, etc.
- e) Frequency: to determine if words are old-fashioned, rare, or common.
- f) Collocations: to realise the specific words that follow a word.
- g) Register: to realise if words are informal or formal, technical or general.
- h) Associations: to understand how words are related to one another.

Thus, teachers and students are required to learn these items of new words that are pointed to as “vocabulary depth” [17]. Each of these nine categories contains receptive knowledge and productive knowledge.

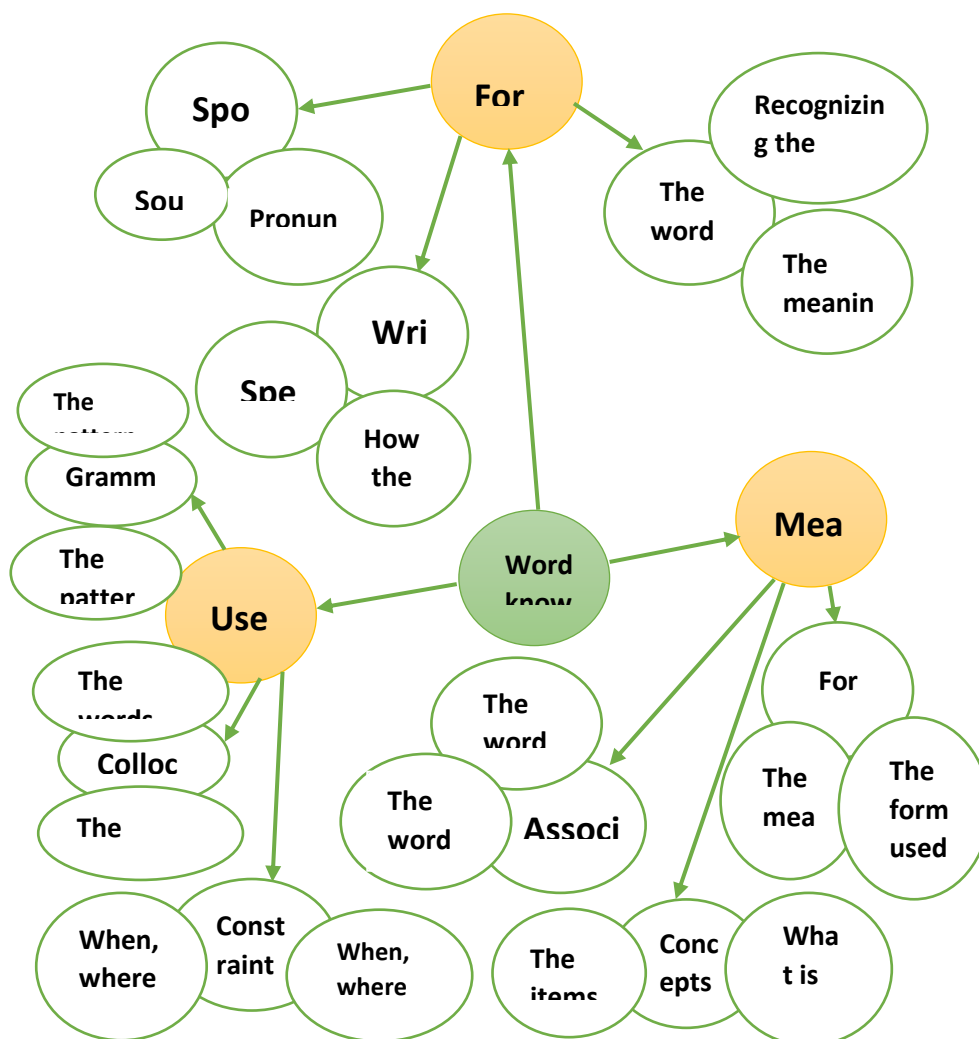


Figure 1: shows word knowledge (the figure is set by the researcher)

Thornbury [14] declares that students should control their receptive knowledge of a word but not their productive knowledge, and vice versa. Also, he refers to this phenomenon as the learners' limited awareness towards the nine categories of word knowledge, in addition to the significance of learning these categories.

Regarding the definitions above, it can be assumed that vocabulary is the number of words that are required to express ideas and indicate the speakers' meaning.

The significance of vocabulary

Vocabulary knowledge and awareness are considered essential tools for second language students since a limited vocabulary in L2 can influence the process of communication. Otherwise, it has been noticed in EFL teaching that vocabulary is a major concept in English language teaching and learning, especially in Iraq. Rababah [18] investigates that Arab learners face problems communicating in English because of vocabulary terms, teaching methods, and an incorrect environment. In teaching any second or foreign language, vocabulary is considered the most important item. Schmitt [19] states that confirmation of the significance of vocabulary acquisition can emphasis lexical realization, which is the central communicative skill and culture in the acquisition of a L2. Nation [13] characterized the connection between vocabulary awareness and the use of language as complementary. That means vocabulary knowledge allows language use, and on the contrary, language use shows growth in vocabulary knowledge.

It was asserted that vocabulary has an essential role in the process of learning a foreign language. Thus, vocabulary has an influence on the four skills of language learning. Thuan [20] claims that vocabulary learning is necessary in a language classroom because it can support communication; thus, the control of grammatical rules and pronunciation. In this scope, Thuy [21] confirms that the major function of vocabulary in communication is that "one cannot speak, understand, read, or write a foreign language without knowing a lot of words. Vocabulary learning is at the heart of mastering a foreign language".

When students realise the understanding of the lexicon of a language, they earn language proficiency [22]. Hence vocabulary learning is not only about realizing word meaning and its connotations, its derivatives, and collocations, but also acquiring communicative proficiency with skills and grammar [23,24,25&26].

According to Elgort et al.[27], vocabulary learning is observed as the realization of a word at the receptive level, followed by using the word at the productive level within various condition contexts during its derivatives. In this scope, Nyikos & Fan [28] introduce three concepts of vocabulary acquisition, irrespective of classifications or learning strategies used by students. They affirm that vocabulary learning is based on:

- a) The time needed to keep words in memory after rote learning,
- b) Realization of the linguistic properties of words,
- c) The context of the target vocabulary.

Ali [28] asserts that the greater the frequency with which a word is used, the greater the possibility of acquiring it. According to him, the ability reveals the meaning of word sets the amount of the vocabulary students' gain.

Khan et al. [29], affirm that EFL learners state that they can realise the new items by the discussion that is given in lectures, but the students are unable to remember the new vocabularies after a short period of time. This due to that these words are not used in their conversations. The awareness for the practicing of strategies in EFL classes in order to support the process of vocabulary learning for the improvement of oral use and communication in and out of classroom. However, EFL students who gain few vocabularies need more time to learn new vocabulary aspects and unable to practice in comprehending text and lack practicing in oral activities with their colleagues.

Khan et al. [29], declare that the process of vocabulary learning requires the students' competence in practice and theory, so learning any foreign language greatly related to vocabulary realization. That means any limitation of vocabulary aspects can block the process of learning SL. Macis & Schmit [30] suppose that, in learning second language (SL) without gaining sufficient vocabulary knowledge, students do not show the required performances in the process of language learning and its qualification.

Walter [31] argues that it is unhelpful to learn a language without words, hence communication between others depends on words. He also focuses that teachers and students recognize that acquisition and acquiring of the vocabulary consider a central item in teaching a language.

Afzal [32] asserts that vocabulary knowledge is the fundamental section of the language; in other words, vocabulary knowledge is the main part of communication skill. In the same scope, Schmit [33] assumes that vocabulary has an important role in learning and teaching SL, hence, human beings language based on the vocabulary acquired and used. Without vocabulary, students cannot be encouraged to use the language. Afzal [32]proposes that vocabulary has different meanings suggested by teachers. It has been asserted that vocabulary characterizes "sight-word vocabularies" as the immediate identification of words by learners, while others vocabularies as "listening-vocabularies or students' understanding of the heard and spoken words"[32].

Therefore, everyone who wants to control a language should aim the four skills (reading, listening, writing, and speaking). Besides these skills, there are three items in the language 'vocabulary, grammar, and pronunciation [17]. Vocabularies are the focus to English language teaching, so, in the absence of appropriate vocabulary, learners will not realize and understand each other or show their ideas. Thus vocabularies consider knowledge of words and discussion of meanings of words.

Types of vocabulary

Some researchers classified vocabulary into two types, *active vocabulary* and *passive vocabulary* [34]. Active vocabulary, it is a vocabulary that the learners should be taught and they can be supposed to be able to use. While passive vocabulary is the words which learners will understand when they met them, but which they may unable to pronounce. Hatch and Brown [35] propose two types of vocabulary, receptive and productive vocabulary.

- a) Receptive vocabulary: According to Webb [36], the receptive vocabularies are words which students can understand and identify if they are used in context but they are unable to produce. It is a type of vocabulary that students understand when they see within context but may not use it in writing and speaking.
- b) Productive vocabulary: Webb [37;36] defines productive vocabulary as a word that the students realize and perform properly and use in writing and speaking. It contains what is required for receptive vocabulary with addition of the ability to write and speak at the suitable time. Thus, productive vocabulary is a word that used by students to express their ideas and thoughts to others.

Webb [36] declares that students realize the receptive vocabularies when they are used in context. Neuman and Dwyer [11] advocate that vocabulary represents the words in spoken 'expressive vocabulary' and listening 'receptive vocabulary' types which the students need for particular interaction. Vocabulary knowledge points out the students' progress. Schmitt [19] emphasizes that learning vocabularies have been a competence taught and estimated in other language skills (reading, speaking, listening, and writing). Farjami and Aidinlou [38] investigate that learning second or foreign language at different scale of skill needs a great number of words for that, the students show efforts to memorize words in their language term memory.

Cognitive vocabulary

Many studies have concluded that EFL students with higher proficiency able to use vocabulary learning strategies more than weaker learners [39,23,40 & 41]. Some studies have asserted that learners with higher proficiency of second language able to use vocabulary learning strategies that need cognitive performance [42]. Ali [28] states that guessing the new meaning of a word from the context, using dictionaries and using morphological knowledge like affixes and parts of speech are investigated as the most extremely used strategies for learning the new meaning of a word.

Iraqi students often used specific strategy to memorize and understand words for example trying to relate word to its synonyms or antonyms, or setting words together into classifications. Nyikos and Fan [25]; Anderson [43] argued that EFL students can success in vocabulary learning by choosing more complex and function compatible strategies for learning new second language words. Also Nopriato and Purnawarman [44] show in their study that Indonesian students present reasonable use of VLS with more confirmation on the limitation category of vocabulary learning strategies. Oxford [45] affirms that using background knowledge schema reinforce students' abilities to show cognitive strategies by reasoning and investigation of word and sentence form, then enhances students' ability to gain new words.

According to Donghua [5] there is a connection between cognitive linguistics and vocabulary learning, and the close connection between various senses of polysemous words, taking into consideration that the cognitive linguistics theory can help students to understand vocabulary.

The meaning of vocabulary contains two sides, grammatical and dictionary meanings [5]. Among these two sides, the grammatical meaning shows that lexical grammar notion or connection, like part of speech, the plural form and singular form, tenses of verb; dictionary meaning indicates the meaning of single words occur in the dictionary. That means "the grammatical meaning of words is usually changeable, but its dictionary meaning are the same" [5].

Goundar [46] confirms the importance of strategies language learning vocabulary. He insists on that the students must use strategies in order to learn new English word and raise their awareness of vocabulary-learning strategies which may be performed in learning new words.

Many studies have focus on two main types of learning strategies, *cognitive learning strategies* and *meta-cognitive learning strategies*. Elashhab [8] states that the *cognitive learning strategies* deal with the procedures or processes used in language learning or find a solution for a problem which needs translation, direct analysis, or synthesis of learning materials. While *meta-cognitive strategies* deal with the recognition of cognitive operation and organization of cognition or executive control or self-management during such assessment, organization, and arrangement. Ahmed [47] states that metacognitive knowledge of reading strategy can direct students choose which strategies they may use and how must use these strategies.

To understand new vocabulary when it exists and to know uncommon vocabulary, students must be capable to have information about the word. Nation [13] asserts that considering reference sources and applying parallels considered necessary in the process of vocabulary learning. Nation [13] declares that a good way to learn vocabulary correctly is to use it repeatedly. According to Nation [13] the repetition is a necessary tool in the process of vocabulary learning.

Reid et al [48] assure that students who are detected introduce to cognitive strategy instruction (CSI) must be realized their metacognitive knowledge of strategies. The students will obtain the skill of choosing the suitable strategy at the right time.

Chen [49] argues that cognition deals with mental process which contains the behavior and ability by which human being understand and get knowledge. Cognitive linguistic (CL) consider an approach which depends on "our experience of the world and the way we perceive and conceptualize it" [50]. In other words, it is an approach to the investigating of natural language that emphasizes language as a tool of processing, arranging and transferring information and in the very limited sense.

Janis et al. [50], assert that vocabulary learning considered a big challenge for English language students. They proposed a term called *Cognitive Vocabulary Approach (CAV)* which is considered as a foundation in what one knows about comprehension and vocabulary. This approach concentrates on direct instruction “of not only new word meanings, also on metacognitive orientation”. Janis et al. [50], introduced three aspects of the cognitive vocabulary approach; they are investigating word meanings, recognizing unfamiliar words, and linking word meanings.

- 1) Investigating word meaning: it is the ability to investigate “the meanings of unfamiliar words and unfamiliar words used in unfamiliar ways” [50].
- 2) Recognizing unfamiliar words: it deals with the ability to examine unfamiliar words in addition to identify how significant the word is for understanding. This needs metacognitive awareness from students.
- 3) Linking word meanings: the instructors must help students to understand and internalize the words’ meaning by deepening students’ realizing the word. This can be done by some activities that need students to relate word meaning to specific contexts and to link the words to other words.

METHODOLOGY

The researcher tries to employ several activities and actions to improve the level of the target participants, such as grouping the students into small groups to explain a specific subject and provide responses. One of them will be requested to read the answers aloud and put the correct responses on the board later. The researcher created a competition among groups by asking them to come up with various ideas and write them down, then asking them to read their responses aloud and put the most appropriate one on the board. In addition, the researcher encourages participants to write some vocabularies on papers and exchange them with one another, providing them with corrective feedback, practical writing activities, and drawing their attention.

Limitation of the study

This study is limited to the first-year students in the Department of English, College of Education for Women, University of Baghdad, Iraq. During in the academic year 2020- 2021, the experiment was conducted. Thirty female students engaged in this study which achieved during COVID-19. Because of the circumstances were challenging throughout most of the pandemic, Google meet has been used to hold meetings and break the lockdown. Participants receive some abilities in criticism, analysis, and role playing in this study, which is limited to performing conversation. The study was limited to enhancing vocabulary multiple meanings and related meanings.

Experiment

The aim of this study's experiment is to discover and categorize the challenges Iraqi students face when using various vocabularies. To evaluate the experiment, the researcher uses an experimental group design with pre- and post-tests. For the purposes of this study, the researcher believes that a specific design is sufficient. The researcher takes the following measures to reach this goal:

- a) This study depends watching some series on YouTube.
- b) As a data collection tool, thirty paragraph samples were gathered (these samples have been chosen randomly).
- c) A pre-test was provided to the students to assess their knowledge of using vocabularies.
- d) Five groups of participants were formed, and each one will put up great effort to outperform the others.
- e) Students' knowledge of multiple vocabularies is collected by the researcher. Refreshing participants' memories of the linked meanings of specific English terms was accomplished by the many occurrences of each word in different ways within a single domain. To ensure that everyone could take part in the experiment, the researcher has used blended learning method.

The research instruments and procedures

The study's tool was chosen to be a written test form. To assess pupils' performance, pre- and post-tests were created. The steps were carried out as follows:

- For the benefit of students, the researcher used PowerPoint slides to demonstrate how different vocabularies are used and their unique qualities.
- As a class assignment, students were required to work in groups to determine the profile/base organization, the active zone, and the perceptual basis for representing information. Telegram groups are held in order to ensure a high degree of involvement. Researcher sends at least two lines about one of the concepts in order to practice the major meaning analysis and domain identification by students, in addition to revealing the profile/base organization, active zone and perceptual basis for knowledge representation. Additionally, diagrams could be used to show how different areas are connected.
- Students were asked to identify the lexical concept's foundation, profile, and active zone in a variety of sentences, as well as their associated domains. After that, they followed the processes for conducting the posttest.

Pretest

The test is aimed to measure the students' abilities to comprehend and understand the meanings of the followings: 1. *My red pencil is not red.* 2. *What is basketball?* 3. *The sum of the angles of a triangle is 180 degrees.* In the course of this study, it was discovered that the participants were unable to understand the meaning of the above-mentioned words. There were obvious limitations to their abilities when it came to figuring out the semantic relationships between these different expressions.

It was noticeable that the students had difficulty writing and made a variety of errors as a result. According to the results of pretest, the students did not use the proper vocabulary.

Posttest

The fundamentals of using vocabulary were covered over the five weeks of online lectures. Groups of students were asked to share examples of what they had learned and discuss them over this time period. The students were shown images and asked to explain them in their own words by the researcher. Once it was time to take the test, they each did the same task separately.

Student comprehension improved significantly on the post-test, according to the data. Furthermore, they demonstrated that they are capable of clearly expressing and organizing their thoughts. Because of this, they were able to understand both their superficial and deeper meanings. It became apparent that they had the ability to avoid making contradictory statements by carefully examining the meanings of each. Additionally, they were able to evoke and distinguish the difference between cognition and perception.

Data Analysis

Results from the pre- and post-tests are shown in the following table. In order to save space, the marks have been omitted from this section of the text. The data from both tests was analyzed with SPSS statistical editor. The number of participants and their average grade are listed in this table, as well as other statistical statistics.

Table 1: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	9.3111	30	2.73807	.49996
	posttest	12.7000	30	2.69516	.49271

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	30	.78642	.000

Table 1 represents number of participants, which is 30. The average in the pretest is (9.31), the average in the posttest is (12.70). The participants showed progress (12.70 of 9.31=3.39). Hence the difference between two scores in pre and post-tests is more than (0.5) so the study is valid.

RESULTS AND FINDINGS

The primary objective of this study was to identify vocabulary problems among Iraqi students learning English as a foreign language. Students in the first year of English Department at the College of Education for Women, University of Baghdad face a variety of lexical challenges. The process of study and analysis can absolutely enhance learners' vocabularies and improve their understanding of the complexities of meaning interrelationships in their minds.

Unexpectedly, the students are attracted by a novel technique and flexible perspective for achieving L2 surface and deep meanings connections. As a result, as they analyze or search for vocabularies, they might open more and more windows for vocabulary learning. They are able to enhance their background knowledge.

CONCLUSION

This study highlights both practical and intellectual aspects of cognitive linguistics. Unlike other studies which concentrate on either practical methodological aspect or theoretical abstract ones. Showing the possible meanings of different utterances help in revealing specific difficulties in using English expressions for Iraqi L2 learners. Meanings can

be represented in drawn figures, images, and signs consequently these variety of meanings representation enlarge the medium of communication and create deep level of comprehension. Examining the Iraqi students' ability to differentiate and produce correct expressions in English and identify their parts by substituting the parts of a sentence with other words from the same lexical field. The experiment investigates how cognitive linguistics help EFL students' understand the English expressions in their writings and speech contexts. Based on the results the understanding, usage, and interrelation of English language can be outreached in a more comprehensible way throughout adopting cognitive linguistic theories. Also, using competitions, repetitions, visual aids, group work, and using effective feedback help students to improve their understanding. Most students commit mistakes in sentence vocabulary.

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