

Investigating EFL Undergraduates’ Vocabulary Learning Strategies (VLSs) at a University in Syria

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Abstract

Although vocabulary learning plays a significant role in developing learners’ abilities to understand and use a language for communication, there is little research conducted on vocabulary learning among EFL Syrian learners. Therefore, the present study aims to investigate the use of Vocabulary Learning Strategies (VLSs) among 100 randomly selected EFL Syrian first-year undergraduates in a university in Syria. Using quantitative methods of data collection and analysis, the data were collected through the VLS questionnaire. Descriptive statistics was used to analyze the data. The results showed that the EFL Syrian learners are moderate users of VLSs. The results also demonstrated that direct memory applying strategies scored the highest mean value among the ten categories of VLSs, while indirect cognitive creative strategies indicated the lowest mean value. It was concluded therefore that the average EFL Syrian undergraduate needs more training on vocabulary learning, especially on the use of VLSs and expanding their vocabulary knowledge.

Keywords: EFL learning, vocabulary learning strategies, cognitive processing theory, direct strategies, indirect strategies, EFL Syrian learners

1. Introduction

According to Rubin and Thompson (1994), "vocabulary learning is at the heart of mastering a language." It is a tool that ensures one's ability to understand, speak, write and read in any language. As emphasized by Fan (2003), knowledge of vocabulary is one of the most important aspects of language learning in general. Learners' knowledge of vocabulary has been documented as one of the most important research areas in the acquisition of English as a second language (ESL) and English as a foreign language (EFL) learning (Lightbrown & Spada, 2006). Researchers in the area of ESL acquisition and EFL learning have paid considerable attention to learners' need for optimizing their knowledge of vocabulary knowledge (Schmitt, 2000). As part of the shift of academics and practitioners from the product to the process in language education through focusing on language learning strategies (Chang, 2011; Krashen, 2013; Sarafianou & Gavriilidou, 2015), since the late 1970s, many researchers have investigated learners' vocabulary learning strategies (VLSs) and their results have enriched our understanding and knowledge of various categories of VLSs used by ESL/EFL learners in vocabulary learning (Fan, 2003; Gu & Johnson, 1996; Schmitt, 1997; Schmitt & Schmitt, 1993; Xia & Qiang, 1998). Among these categories of VLSs are the memory strategies which help learners to retrieve words already learned and relate meaning of new words to their previous knowledge. Learners also use cognitive strategies to manipulate information about new words and social strategies by which they learn new vocabulary through interaction and consultation of others. Many recent studies on EFL learners' VLSs (Chuang & Liu, 2014; Hamza et al., 2009; Huang, 2011; Kafipour & Naveh, 2011, Tanyer & Öztürk, 2014; Teng, 2015) have supported the above highlighted importance of VLSs in assisting learners to learn vocabulary in English. As implied by the results of these studies, VLSs assist learners to become independent language learners, control their own learning, and use various strategies to learn vocabulary. In addition, despite the fact that the results of such cited studies differ in terms of the overall use of VLSs and the

level of use of each category of VLSs, they still corroborate the above categories of VLSs, especially the taxonomy of Schmitt (1997).

Previous studies highlighted the importance of learners' vocabulary in EFL learning. According to Shen (2013), EFL learners' lack of vocabulary knowledge is considered as one of the challenging obstacles to their efficient comprehension of texts in academic reading. Moreover, research indicates that most of the challenges EFL learners face in enhancing their language skills, both receptive and productive language skills are derived from their inadequate vocabulary. Even for those EFL learners with high levels of language competence, they still need to acquire and master more vocabulary (Sarani & Shirzaei, 2016). Moreover, in the EFL context, which is an input-poor learning environment, it becomes necessary for developing learners' appropriate VLSs by which they enhance their vocabulary knowledge (Fatima & Pathan, 2016; Mahdavi, 2016).

Despite the fact that there are many studies which have emphasized the role of VLSs in EFL learners' vocabulary, vocabulary learning in the EFL Arab context, including Syria is neglected as classroom teaching and learning still place an emphasis on the four language skills. A few previous studies (Jdetawy, 2011; Rabab`ah, 2002) pointed at vocabulary learning as a challenging issue that hinders EFL Arab learners' language learning, including oral and written production of the language. This can apply to EFL Syrian learners at university where they do not pay much attention to vocabulary knowledge since they have been used to learning English as a school subject whose syllabus overemphasizes the four language skills but neglects vocabulary learning. Therefore, the current study investigates EFL Syrian learners' vocabulary learning, in particular their VLSs. Specifically, the study aimed to answer the following research objective:

To identify the EFL Syrian university learners' VLSs in learning vocabulary in English.

2. VLS

Many previous studies focused on identifying VLSs and measuring their use among ESL/EFL learners. For instance, Schmitt's (1997) study among 600 Japanese EFL students revealed various strategies, such as taking notes, repeating, speaking or pronouncing new words, studying the spelling of new words and using a bilingual dictionary most frequently. Besides memory, cognitive, metacognitive and social strategies, Schmitt (1997) identified determination strategies by which learners discover the meaning of new words without referring to other people. According to Gu and Johnson (1996), using a new word in a context, learning a new word from the context, self-initiation and selective attention, using a dictionary, guessing the meaning of a new word and taking notes were used highly by learners. However, the use of elaboration and encoding strategies was medium, and a low use of memorization vocabulary strategies was also reported in this study. Fan (2003) reported that EFL learners used these strategies more frequently recalling the meaning of words, using dictionaries, revising, paying attention to the use of new words, guessing meaning of new words and analyzing new words into their phonetic segments. However, associating between the meaning and sounds of new words was the least frequently used strategy.

Zhang (2009) investigated the use of VLSs among 481 EFL Chinese undergraduates. Based on the questionnaire of VLSs adopted from Gu and Johnson's study, the researcher reported that the learners' most frequently used VLSs were cognitive strategies including using dictionaries, guessing meaning of new words from contexts and taking notes of new words. Wang (2012) carried out a study into measuring the use of VLSs among 60 postgraduates in Henan Polytechnic University. The investigation was based on Gu and Johnson's (1996) questionnaire and O'Malley and Chamot's (1990) taxonomy of VLSs: cognitive, metacognitive and social/affective VLSs. The results indicated that the learners used various VLSs at the cognitive, metacognitive and social/affective levels. A

high use of VLSs was found among guessing, using dictionaries, selective attention, affective control, planning and implementing VLSs.

There are several previous studies which investigated VLSs among ESL/EFL learners using or adopting Schmitt's (1997) taxonomy of VLSs. In a study by Lee (2007) among EFL Korean university students, it was found that memory strategies were the most frequently used strategies, followed by cognitive and metacognitive, while social VLSs scored the lowest use of VLSs. This was supported by Kafipour et al. (2011) who reported that memory VLSs scored the highest rate of use, followed by metacognitive, social and determination strategies among EFL Iranian learners. On the other hand, cognitive strategies were the least frequently used strategies. Heidari et al. (2012) also found that the most frequently used VLSs were memory strategies, followed by cognitive and determination VLSs. In contrast, social strategies were found with the lowest level of use among EFL Iranian learners. Similar results were reported by Hong (2009) from a study among Chinese postsecondary students as it was found that repeatedly spelling the word in the mind was the most frequently used strategy, followed by breaking down the word into its sound segments, remembering the words by engaging in a project and consulting or asking peers for the meaning of the word. It was concluded that the students' high tendency to repeat words as one strategy in learning vocabulary is ascribed to the influence of their culture that values perseverance and values.

In the same vein, Asgari and Mustapha (2011) found that ESL learners used memory strategies, such as using a dictionary and using various media. The learners did not use cognitive strategies, including writing down the new words. Yet, Asgari and Mustapha (2011) did not justify why the learners did not use such cognitive strategies. This could be due to the fact that cognitive strategies demand much cognitive effort from the learners in learning vocabulary. The study by Kalajahi and Pourshahian (2012) showed that learners reported high use of memory and cognitive strategies while a medium use of metacognitive strategies. However, why learners used memory strategies most frequently was not answered by Kalajahi and Pourshahian (2012). Memory strategies seem to be easy for

learners to use in learning vocabulary, especially with much emphasis on memorization placed by teaching and learning approaches in the EFL context.

Teng (2015) investigated VLSs among a number of 145 EFL learners with low proficiency by employing a questionnaire adopted from earlier studies (Gu & Johnson, 1996). Overall, the results showed that the EFL learners used direct strategies (direct memory strategy, direct cognitive practice, direct cognitive creative strategy, and direct compensation guessing) more frequently than indirect VLSs. The highest use of the direct memory strategy could be due to the EFL learners' tendency to memorize and retain words. Teng's (2015) is one of the few studies that could provide more information on VLSs in terms of their different categories of VLSs. Teng's (2015) study was used as a reference for adoption of VLS questionnaire in the current study. Moreover, this instrument was reported to be reliable and valid for investigating learners' use of VLSs.

3. Theoretical Framework

The theory of cognitive processing developed by O'Malley et al. (1985) and O'Malley and Chamot (1990) is the underpinning theoretical framework in this study. According to Anderson (2005), this theory which was developed within the realm of ESL/EFL teaching and learning can provide better insights into how learners handle and process information or input resources. In their works which is the base of their theory, O'Malley et al. (1985) and O'Malley and Chamot (1990) proposed three major kinds of strategies: metacognitive, cognitive and social strategies. The metacognitive strategies are those attempts or actions made by learners consciously in order to attend to, monitor and assess or evaluate their comprehension of the text or meaning.

The cognitive strategies represent a group of sub-techniques including elaborating, inferencing, and translating. They are related to storing and recalling information. Thus, using several strategies would be difficult without the interaction between vocabulary learning and learners' cognition (Chamot & O'Malley, 1994).

The social strategies are those strategies used by learners for seeking or asking, for example, for clarifications and cooperation. O'Malley and Chamot (1990) also emphasize that this theory focuses on the process of obtaining and retrieving information.

4. Methods

4.1 Research Design

The present study used a quantitative research design. According to Cresswell (2013), studies using quantitative research designs usually seek for participants' perception, attitudes, or even opinions of investigated issues and report them in the form of statistics. This suits the purpose of investigation in the current study, which was to identify the Syrian learners' VLSs through a questionnaire. More specifically, the quantitative research design adopted in the present study falls within descriptive research designs. In descriptive studies, the researcher attempts to measure the participants' behavior and describes it without any attempt to change such behavior.

4.2 Research Context

The present study was conducted in Kalamoon University, which is a private university located in a rural area near the large city of DeirAtiyah An-Nabek District of Rif Dimashq Governorate, Republic of Syria. The university was established in August 18, 2003. It is officially recognized and accredited by the Ministry of Higher Education. It offers secondary school graduates with opportunities to join bachelor degree programs in various fields, including, Engineering, Business and Management, Pharmacy, Medicine, Applied Sciences, Dentistry and Health Sciences. Since its establishment, the university has attracted a wide number of students majoring in various domains. The university is one of the officially accredited higher educational institutions in the Republic of Syria.

The target population of the present study comprised first-year university non-English major students ($n = 400$) at Kalamoon University. They were joined

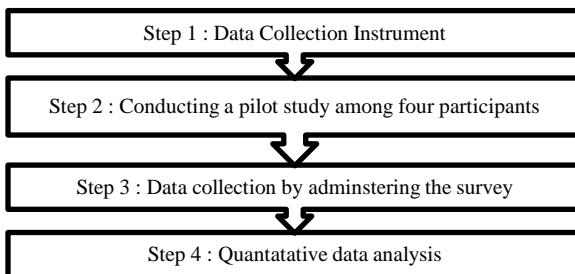
different fields of studies in their first year of Bachelor Degrees, including Engineering, Applied Sciences, Dentistry and Health Sciences. The study focused on first-year students because they were still at the stage where they needed to learn English that would enable them to excel in their university majors. The participants had to take a general English as a compulsory course required by their faculties.

The study used a simple random sampling technique which is a type of probability sampling. This type of sampling is usually used based on the assumption that the researcher knows the target population (Gelo, Braakmann & Benetka, 2008; Marshall, 1996). Hence, in using this sampling method, the researchers assigned the target population into numbers from 1 to 400 with the help of the course instructor. Then, the researchers randomly selected 100 students as the participants of the present study. The ages of the participants varied from 19 years old to 23 years old. The males represented 50% of the participants. The researchers selected this number because it is sufficient to represent the target population and at the same time, to avoid errors derived from a small sample size.

4.3 Research Procedure

The present study was carried out in four main phases. Figure (1) shows the procedure of the study in its four phases. The following section discusses these phases in detail.

Figure 1. Flowchart of the study procedure



4.4 Data collection and analysis

The data collection instrument used in this study is the VLS questionnaire (Appendix). This 5-point Likert Scale questionnaire ranging from ‘never’ to ‘always’ was adopted from previous research (Gu & Johnson, 1996; Netami et al., 2011; Shimo, 2008; Teng, 2015). This research instrument was reported to be reliable and valid in these previous studies. For the current study, it scored a Cronbach’s alpha internal reliability coefficient of 0.90. The VLS questionnaire consists of two main sections. The first section seeks information from the participants regarding their backgrounds, specifically their age, gender and university majors. The second part of the VLS questionnaire comprises 40 items and each item presents one individual VLS. The items or VLSs are direct and indirect VLSs. They are classified into 10 main categories (Table 1). There are five direct categories of VLSs: direct memory applying strategies, direct cognitive creative strategies, direct cognitive practice strategies, direct compensation guessing strategies and direct cognitive analysing strategies. There are also five indirect categories of VLSs: indirect affective strategies, indirect social cooperation strategies, indirect metacognitive planning strategies, indirect metacognitive monitoring and evaluating strategies and indirect cognitive creative strategies. In order to make the questionnaire comprehensible for the participants, the VLS was translated by the researcher into Arabic language, the mother tongue of the participants. Then, the Arabic version of the questionnaire was evaluated by an expert with PhD in Applied Linguistics.

Table 1 Categories of above vocabulary strategies based on Teng’s (2015) study

Category	Item Numbers
Direct memory applying Strategies	6, 12, 13, 14, 15
Direct cognitive creative strategies	10, 40
Direct cognitive practice strategies	7, 9, 11, 37
Direct compensation guessing strategies	2, 3, 36
Direct cognitive analysing strategies	4, 16, 20, 32, 34, 39
Indirect affective strategies	21, 22, 23, 24, 25, 26,27, 28, 2
Indirect social cooperation strategies	19, 38
Indirect metacognitive planning strategies	17, 18, 35
Indirect metacognitive monitoring and evaluating strategies	30, 31, 33
Indirect cognitive creative strategies	1, 5, 8

Prior to collecting the data of the present study, the researchers carried out a pilot study among a small number of students (n= 4). The purpose of the pilot study was to determine whether the content of the instruments (the Arabic version of the VLS questionnaire) was clear for the participants. The four participants responded to the instrument without any difficulty understanding its content.

Prior to the data collection phase of the study, an oral approval had been obtained from the president of Kalamoon University. Then, the instructor was contacted by the researchers for permission to carry out the study. After this, the participating learners signed written consent forms. They were informed that their information would be used only for research purposes.

The third phase of the study procedure was concerned with collecting the data. This was carried out in two sessions. The first session was preparing the participants for the survey and distributing the questionnaire in paper-and-pen format. In this first session, the course instructor explained to the participants the purpose of this survey and assured them that their participation would be confidential and that this would not have any effect on their course grades. The participants were also asked to respond to the items of the questionnaire based on their experience of learning vocabulary in English. The questionnaire was completed by the participants in the classroom in the presence of the instructor. It took less than 30 minutes for the participants to complete it.

For the data analysis, first, the researchers coded the participants' responses to the VLS questionnaire. The scores were keyed in to SPSS (version 19.0). For the first round of data analysis, the researchers used descriptive statistics, including the minimum, maximum, mean values and standard deviations. This was applied to the participants' overall use of VLS, the ten categories of VLSs and individual VLSs as represented by the items of the VLS questionnaire.

5. Results and Discussion

Table 2 shows the results of the descriptive analysis of the participants' responses to the VLS questionnaire in the form of descriptive statistics, including the mean values. Based on the results, overall, the EFL Syrian learners who participated in the current study are medium users of VLSs ($M=3.18$). In other words, the participants are moderate users of VLSs, which can be attributable to their moderate awareness of the importance of VLSs in vocabulary learning. Moreover, the typical EFL classroom language learning and teaching methods do not give much attention to vocabulary learning and vocabulary strategies.

Table 2. Descriptive statistics of overall and main categories of VLSs (n = 100)

Category	Mean	SD	Level of use
Direct memory applying Strategies	3.77	0.73	High
Direct cognitive creative strategies	3.66	1.14	High
Direct cognitive practice strategies	3.29	0.94	Moderate
Direct compensation guessing strategies	3.71	0.81	High
Direct cognitive analyzing strategies	3.42	0.92	Moderate
Indirect affective strategies	2.95	1.05	Moderate
Indirect social cooperation strategies	3.54	0.91	High
Indirect metacognitive planning strategies	2.85	1.30	Moderate
Indirect metacognitive monitoring and evaluating strategies	2.41	0.99	Low
Indirect cognitive creative strategies	2.20	0.85	Low
Overall	3.17	0.86	Moderate

Mean values less than 1-2.49 (low), 2.50-3.49 (moderate), 3.50- above (high)

The above result illustrating the EFL Syrian university learners as moderate or medium users of VLSs is in agreement with a few previous studies (e.g., Hamza et al. 2009; Kafipour et al., 2011; Komol & Sripetpun, 2011) which reported the overall moderate use of VLSs among learners. This moderate use of VLSs could be due to learners' lack of awareness of the importance of VLSs in vocabulary learning and the EFL classroom language learning and teaching methods that do not give much attention to vocabulary learning and vocabulary strategies. Other possible reasons could be learners' attitudes towards the value of VLSs; that is, the participants found some VLSs more useful than others and they focused on these specific strategies while ignoring other strategies, due to their unfamiliarity with the various types of VLSs and their subconscious use of certain

or some VLSs. However, the result of this study contradicts the result reported by Nirattisai and Thanyapa (2014) who reported low VLS use among their participants.

Regarding the descriptive statistics of each category of learners' VLSs, direct memory applying strategies scored the highest mean value ($M=3.77$) among all other types or categories of VLSs. This indicates that the majority of the participating learners in this study most often use VLSs directly related to memory or memorization, such as making a list of most forgettable words, memorizing and repeating. This was followed by direct compensation guessing strategies (e.g., guessing the meaning by using logical relations), direct cognitive creative strategies (e.g., classifying new words into categories) and indirect social cooperation strategies (e.g., asking the teacher or peers for meaning of new words). These three categories of VLSs scored these mean values ($M=3.71$, 3.66 , 3.54), respectively. This is partly consistent with the results reported by Teng (2015) regarding the high use of direct memory applying strategies and direct cognitive creative strategies. Yet, the results of the present study regarding the high use of the direct compensation guessing strategies and indirect social cooperation strategies contradict the results of Teng (2015). The mean values of these two categories reported by this researcher were of moderate and low levels, respectively.

Based on the results of the present study, the four above-mentioned categories of VLSs were direct cognitive analyzing strategies (e.g., looking at how a new word is used differently in different contexts) ($M=3.42$), direct cognitive practice strategies (e.g., practicing new words in writing) ($M=3.29$), indirect affective strategies (e.g., learning new words the stratification in knowing new words) ($M=2.95$) and indirect metacognitive planning strategies (e.g., setting a goal or plan and sticking to it for learning new vocabulary) which scored ($M=2.86$). Such results indicate that these four categories of VLSs are moderately used by the Syrian learners. This also supports the results reported in Teng's (2015) study in relation to the learners' moderate use of direct cognitive practice strategies only. However, the other three categories: direct cognitive analysing

strategies, indirect affective strategies and indirect metacognitive planning strategies which had moderate mean values in this study were found to be of a low frequency of use in Teng's (2015) study. Such contradicting results could be due to the differences in the participants' awareness of such VLSs and their levels of English. Similar to the results of the present study is the result reported by Kafipour et al. (2011) showing that metacognitive strategies were of a medium use among EFL Iranian learners. In addition, the results of Heidari et al. (2012) are consistent with the results of the study regarding the moderate use of cognitive VLSs among EFL Iranian learners.

For the indirect metacognitive monitoring and evaluating strategies (e.g., finding one's mistakes in learning new words and correcting them) and indirect cognitive creative strategies (e.g., taking part in many English activities to practice using new words in English), these two categories of VLSs had low mean values ($M=2.42, 2.2$), respectively. Indeed, these two categories of VLSs represented the least frequently used VLSs among all categories listed above. It also means that the Syrian EFL learners do not tend to use indirect VLSs by which they can monitor, evaluate and create situations where they can enhance their vocabulary in English. This mostly reflects the EFL context where situations that involve EFL learners in using English for improving their vocabulary are almost lacking except for formal classroom situations. Like the results in Teng's (2015) study, the results of the present study showed that the Syrian EFL learners tend to be low frequency users of indirect metacognitive monitoring and evaluating strategies and indirect cognitive creative strategies. This could be because such VLSs may require more effort like evaluation, monitoring, thinking and planning.

In brief, the use of direct VLSs was higher than that of the indirect VLSs, which supports what was reported by a few previous studies using the same taxonomy of VLSs (e.g., Netami et al., 2011; Teng, 2015). This implies that learners find it easy to learn new vocabulary directly and retain already learned words in English. Moreover, determining the most and least frequently used categories of VLSs, in this study, it was found that the direct memory applying strategies are the highest or most frequently used strategies. This also supports the

results of Netami et al. (2011) and Teng (2015) as well as the results of other related studies (Asgari & Mustapha, 2011; Chuang & Liu, 2014; Heidari et al., 2012; Kafipour et al., 2011; Kalajahi & Pourshahian, 2012; Lee, 2007; Pourshahian, 2012). The highest use of the direct memory strategy could be due to the EFL learners' tendency to memorize and retain words. In other words, the results of such studies indicate that learners most often resort to memorizing the meaning of words for learning new vocabulary in English. However, this result concerning the highest use of the direct memory applying strategies in this study is in contrast to the results reported by Lawson and Hogben (1996) who found that direct memory strategies were used by few learners. Moreover, memory strategies were found to be the least frequently used VLSs among in learners in Huang's (2011) study. One reason for this difference is the context in which English is taught and learned as in this study the EFL Syrian context reflects their culture of memorization of the Holy Quran. Moreover, while the participants in the above-mentioned two studies were advanced learners of English who might have found it possible to use other categories of VLSs more frequently or develop different strategies rather than developing a tendency to use memory strategies most frequently; in this study the learners were not advanced EFL learners.

From the above ten categories, in this study, the least frequently used categories of VLSs were the indirect metacognitive monitoring and evaluating strategies and indirect cognitive creative strategies. However, Teng (2015) found that the least frequently used VLSs were those categorized as direct cognitive analyzing strategies, which were reported to be an unexpected result by the researcher. Other studies (Heidari et al., 2012; Lee, 2007; Nirattisai & Thanyapa, 2014) also found that social VLSs scored the lowest use of VLSs. However, social VLSs were used highly by the Syrian learners. It may be attributed to the low levels of the Syrian learners in English that may require them to socialize and interact with their peers and teachers to consult them for the meaning of words in English.

6. Conclusion

The results of the present study have several significant implications for educators, EFL instructors and researchers. First, given the importance of VLSs in the success of ESL/EFL learning, even if the Syrian EFL learners use a wide variety of VLSs, considering their medium use of the largest proportion of VLSs and the low usage of some VLSs, it can be inferred that some students either were not fully aware of the value of VLSs in vocabulary learning or simply did not make proper use of such VLSs. This implies that the Syrian EFL learners need to be familiar with many other diverse means and strategies in learning vocabulary in English inside and outside the classroom. However, in order to make learners more frequent and effective users of various VLSs, they need to be trained on how to utilize them for enhancing their vocabulary in English. Such training should be part of the university syllabus that can be taught systematically by EFL lecturers or instructors. Training should also encourage learners to employ various VLSs and make them more conscious about their use of VLSs and fully aware of which strategies are more valuable. Teachers may also educate learners on the effective strategies identified in previous research in order to enable them to use such strategies for independent vocabulary learning. In making vocabulary learning training successful, instructors should explain to their students why they have to acquire a larger number of vocabulary items, what role vocabulary plays in language learning, and how learners can benefit from acquiring vocabulary. They can also engage learners in group discussions and activities where they share their knowledge of vocabulary in general, and in particular VLSs. By so doing, learners can be motivated to be active and independent language learners. In other words, the ultimate aim of such vocabulary learning training should be promoting learners' autonomy in language learning. This will enable them to transfer a particular strategy to a new learning situation independently. It also means that training will enable learners to seek ways to make their use of VLSs meet their individual needs or requirements and preferences (Oxford, 1990).

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