

## University Students' Perspectives on Gamification in Vocabulary Learning: A Literature Review

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### ABSTRACT

Enriching vocabulary among English as a Second Language (ESL) learners, especially university students; plays a vital role in enhancing their mastery of the English language holistically. Nevertheless, some challenges have been addressed from the vocabulary learning practices in tertiary academic institutions, particularly concerning the de-emphasis of vocabulary learning rather than other language skills, vocabulary learning requires full effort and commitment, and lack of motivation among university students to increase their vocabulary knowledge. Hence, gamification in vocabulary learning has been designated as one of the preferable vocabulary learning strategies used in teaching and learning in this current era. There are several positive and negative perspectives on gamification in vocabulary learning among university students which should be considered to improve the quality of gamified vocabulary learning. This paper aims to review the literature relevant to vocabulary and vocabulary learning strategies, challenges related to vocabulary learning, the use of gamification in vocabulary learning, and university students' perspectives on gamification in vocabulary learning. From the discussion, it is discovered that university students perceive gamification in vocabulary learning positively in terms of creating an interesting and richer learning environment, promoting healthy competition, and increasing their motivation to learn. However, some of them have difficulties in adapting to gamified vocabulary learning due to poor Internet connection and lack of digital literacy. Hence, this study is significant to highlight the positive and negative perspectives towards gamification in vocabulary learning to strive for a better future of gamified vocabulary learning in universities.

**Contribution/Originality:** This study contributes to the existing literature by providing an extensive literature review regarding the use of gamification in vocabulary learning. The author focuses on university students' perspectives on gamification in vocabulary learning, which aims to increase their motivation and satisfaction toward gamified vocabulary learning.

## 1. Introduction

English language is a common language conversed around the world. It is universally communicated across the globe and is understood by a lot of speakers, regardless of their age, race, and gender. Worldwide, many individuals have embraced the English language proficiently in their daily communication. [Nor et al. \(2019\)](#) estimate that 1.5 billion speakers, or around 25% of the world's population, utilise it as their major form of communication. It is essential to have a good mastery of the English language in this current era, especially among university students [\(Zhang & Hasim, 2023\)](#). The need for learning the English language in universities is growing due to its importance in a variety of fields, including science and technology, diplomacy, and education [\(Zainuddin et al., 2020\)](#). In several international class conferences or seminars between nations, the English language has emerged as the primary means of communication in the twenty-first century [\(Yaccob et al., 2022\)](#). Moreover, university students with strong English skills are in high demand since the new virtual world places a strong focus on science and technology [\(Garcia-Iruela & Hijon-Neira, 2020\)](#). Hence, it is encouraged for every university student to embrace the beauty of learning the English language due to its benefits to their personal and future career development.

In the era of globalisation, university students need to master several language skills, including vocabulary. Vocabulary learning is an essential element in English language acquisition as it facilitates the speakers' communication with one another [\(Danilina & Shabunina, 2020\)](#). Moreover, it is considered of paramount importance in the learning of the English language. Having a good vocabulary acquisition facilitates them in communicating well with each other and hence; increasing their vocabulary knowledge [\(Hashemian, 2020\)](#). Vocabulary knowledge is regarded as fundamental to various aspects of communicative competence, which includes discourse, linguistic, functional, sociolinguistic, and strategic knowledge [\(Meganathan et al., 2019\)](#). In terms of the importance of acquiring vocabulary knowledge among university students, they are encouraged to have broad vocabulary knowledge to master the English language efficiently [\(Bilgin & Bingol, 2022\)](#). Hence, mastering vocabulary is one of the necessary language elements emphasised by university students.

According to [Rahmani \(2020\)](#), the development of science and technology has increased the number of excellent university students equipped with a wide range of vocabulary. However, several numbers of them lack an understanding of vocabulary and thus, experience difficulties in expressing themselves successfully [\(Li et al., 2022\)](#). These situations are caused by many factors such as a lack of motivation in increasing their vocabulary knowledge and conventional vocabulary learning which might hinder creativity and learning versatility [\(Lui, 2014\)](#). To make the vocabulary learning process engaging, lecturers should adopt a 21st-century learning approach that is approachable and practical to the students' learning preferences [\(Zhang & Hasim, 2023\)](#). For educators in tertiary academic institutions, it has become vital to get students interested in learning English through technology-assisted pedagogies, such as games, gripping narratives, multimedia supports, and authentic content relevant to their life [\(Wang & Tahir, 2020\)](#). As the development of science and technology has progressed by leaps and bounds, the demand for vocabulary learning techniques in classroom settings has increased. Hence, there is a need to adopt the use of science and technology in vocabulary learning in universities.

In parallel with the advancement of science and technology, the use of gamification is asserted to be an efficient method of learning vocabulary (Abadi et al., 2022). There are several positive impacts of adopting gamification elements in vocabulary learning in universities. Among the positive impacts include increasing the level of motivation and engagement, promoting healthy competition during the lessons, fostering self-directed learning among university students, etc. (Nikmah, 2020; Park & Kim, 2021; Rahmani et al., 2020). The use of gamification in vocabulary learning in universities has witnessed several perspectives among university students. Hence, this paper outlines a few aspects of discussions, which are vocabulary and vocabulary learning strategies, incidental and intentional vocabulary learning, challenges related to vocabulary learning, the use of gamification in vocabulary learning, and university students' perspectives on gamification in vocabulary learning.

## 2. Literature Review

This section presents a comprehensive literature review relating to vocabulary and vocabulary learning strategies, incidental and intentional vocabulary learning, challenges related to vocabulary learning in universities, the use of gamification in vocabulary learning, and university students' perspectives on gamification in vocabulary learning.

### 2.1. Vocabulary and vocabulary learning strategies

The term "vocabulary" has been used to refer to a word list of any language in the world, whether verbal or nonverbal. Learning new vocabulary is a crucial step for ESL students who want to become proficient and competent in their target language (Danilina & Shabunina, 2020). Effective writing and fluent speaking are made possible by word power. It supports both the knowledge that students produce as well as their knowledge gain. It improves their overall language abilities, including speaking, reading, writing, and listening (Meganathan et al., 2019). Thus, vocabulary is important in learning the English language, and the quantity of vocabulary required is a crucial topic for research and discussion. When learning a foreign language, one usually starts with the word list of the intended language. Despite this, language learners cannot communicate accurately and fluently without a strong vocabulary. According to Jaikrishnan and Ismail (2021), vocabulary is defined as a collection of terms they are familiar with. In other words, words that an individual knows and understands the meanings are considered vocabulary. Vocabulary has another similar definition, which is a list of terms that each language's speakers may use on their own or a collection of words for a language (Meganathan et al., 2019). Besides, Hashemian (2020) proposes a similar definition, in which a person's vocabulary is made up of all the words in the language as well as words that are regularly defined or translated as well as any specialist phrases or expressions that are used in a specific subject, field, or subculture. Vocabulary learning is also regarded as the heart of language learning, as proposed by Meganathan et al. (2019). This particular definition portrays the importance of learning lexical knowledge. By acquiring several vocabulary learning strategies, it could enhance language competency among ESL learners.

### 2.2. Incidental and Intentional Vocabulary Learning

A lot of studies have been conducted based on strategies for language learning. As postulated by Meganathan et al. (2019), vocabulary learning strategies (VLS) can be

defined as a series of techniques, methods, approaches, or specific attitudes which are purposively adopted by ESL learners to ensure effective learning. In short, the use of learning strategies is intended to increase learning effectiveness, and the essence of learning strategies is conducted, not only the thinking of learners. According to [Waluyo and Tran \(2023\)](#), different individuals have different preferable vocabulary learning approaches, in which it can be highlighted that the methods used in learning vocabulary are flexible and not rigid. [Genc and Belet \(2021\)](#) focus on the use of technologies in vocabulary learning in ESL classrooms. According to [Al-Dosakee and Ozdamli \(2021\)](#), it is recommended that ESL learners should determine several vocabulary methods that facilitate them in improving their vocabulary acquisition.

As [Bilgin and Bingol \(2022\)](#) point out, learning a second language can involve months or even years of deliberate study in which one memorises countless words and grammar rules, or it can involve incidental learning in which one picks up language structures and vocabulary through participation in a variety of communicative activities, particularly reading and listening, while the learner's attention is directed towards the content rather than the form. Vocabulary is where incidental and purposeful learning is most prevalent. This is so because incidental learning may be used to acquire declarative information that is both factual and abstract, but purposeful learning can only be used to acquire factual knowledge ([Meganathan et al., 2019](#)).

In terms of incidental vocabulary learning, through frequent reading and listening, many vocabularies are accidentally picked up. As a result, encouraging students to read and listen a lot might give them excellent possibilities to pick up new words. According to [Jaikrishnan and Ismail \(2021\)](#), vocabulary learning also primarily happens through lengthy reading, with the learner assuming the meaning of unfamiliar words, except for the first few thousand most common words. This process, which is a result of reading and is not the primary goal of the cognitive activity of reading, is incidental vocabulary learning for the acquisition of new words. Many university students acquire their vocabulary unintentionally during the learning process as a result of indirect exposure to words at home and at school by chatting and listening, hearing books read aloud to them, and participating in a lot of independent reading. Long-term vocabulary growth depends on how much you read ([Danilina & Shabunina 2020](#)). One way that kids see vocabulary in rich situations and receive repeated or multiple exposures to words is through extensive reading ([Hashemian, 2020](#)).

In terms of intentional vocabulary learning, it is any type of learning in which the student is aware of what he has learned and is educated about it. By choosing target words in this scenario, learners engage in task-based learning ([Meganathan et al., 2019](#)). It is the kind of education where students pay close attention to learning new words. Hence, the lecturers in universities should help university students learn language intentionally by teaching them how to do it. According to [Hashemian \(2020\)](#), effective purposeful vocabulary learning entails teaching terms to assist comprehension of texts that contain those words, introducing pupils to independent word-learning techniques, encouraging the growth of word consciousness, and encouraging students to learn new terms through wordplay activities. [Danilina and Shabunina \(2020\)](#) contend that intentional vocabulary learning almost always results in quicker and better accomplishments along with a greater chance for retention. It always emphasises the word itself and combines with all kinds of conscious vocabulary learning strategies and means of memorising words.

### 2.3. Challenges Related to Vocabulary Learning in Universities

Several researchers have proven that learning vocabulary is a complicated task and needs a lot of effort and time. Many studies have revealed several challenges faced by ESL learners in vocabulary learning. These challenges might be an obstacle for them in developing their interests to learn vocabulary and thus; delimitating their range of vocabulary for good English language proficiency. Among the challenges is the de-emphasis of vocabulary learning rather than other language skills, vocabulary learning requires full effort and commitment, and lack of motivation among university students to increase their vocabulary knowledge.

One of the prominent challenges in vocabulary learning is the de-emphasis on vocabulary learning rather than other language skills. Vocabulary acquisition is crucial to foreign language learning, but it is also one of the most difficult endeavours. According to [Thiagarajah et al. \(2022\)](#), due to the lack of emphasis on vocabulary growth in ESL classes, it may be difficult for students to develop and increase their vocabulary. As a result, they may believe that focusing on grammar is sufficient for learning the target language and connecting with people. Nevertheless, despite spending years studying English grammar, these pupils never achieve adequate levels of competency and fluency. Although grammar is crucial for learning foreign languages, there is no denying that expressiveness is constrained due to a lack of the vocabulary required to fully benefit from the grammatical arrangement ([Waluyo & Tran, 2023](#)). According to [Setiawan and Wiedarti \(2020\)](#), vocabulary learning requires learners to comprehend and master the application of words systematically and carefully. Hence, it can be deduced that university students need to be systematic and analytical when encountering new words that might be unfamiliar to them.

Besides, [Rahmani \(2020\)](#) states that university students are required to apply several vocabulary learning techniques to acquire and comprehend new vocabulary. These techniques might not be able to be mastered without the proper practice and the full effort of the learners ([Devendren & Nasri, 2022](#)). Thus, it can be deduced from the statement that learning vocabulary requires a monumental effort and commitment to develop a good vocabulary acquisition. To achieve a high level of vocabulary competence, the students must employ several social, cognitive, memory, and metacognitive strategies ([Sadeghi et al., 2022](#)). These strategies require the students to employ several vocabulary learning strategies consistently and effectively. Moreover, by expanding their vocabulary, language learners must expand their word bank and build their linguistic repertory ([Samson & Karthiga, 2020](#)). However, learning new vocabulary can be difficult, especially for non-native English speakers who have issues with spelling, pronunciation, proper usage, inferring meaning from context, and other issues. Hence, it can be deduced that vocabulary learning requires proper practice and full effort from the learners.

Moreover, another challenge related to vocabulary learning is the lack of motivation among university students to increase their vocabulary knowledge. According to [Nor et al. \(2019\)](#), students are less motivated to learn because they do not think their efforts would improve their performance and because other priorities are taking up more of their attention. [Rohaizat and Aziz \(2022\)](#) have made the case that uninteresting courses and challenging assignments without adequate explanation lead to students being less engaged and performing poorly academically. Additionally, according to [Dehganzadeh and Dehganzadeh \(2020\)](#), lack of confidence in their ability to learn, feelings of



incapacity, and poor relationships or communication with lecturers all contribute to students' lack of motivation.

#### **2.4. The Use of Gamification in Vocabulary Learning**

Gamification in vocabulary learning has been a preferable learning approach adopted by ESL lecturers in tertiary academic institutions worldwide due to its convenience (Rivera & Garden, 2021). According to Rahmani (2020), gamification in online learning is a collection of tasks that are constructed using the elements of games. In another definition, it refers to a set of activities and tasks created based on the game mechanics that focus on educational purposes. As proposed by Al-Dosakee and Ozdamli (2021), the concept of the gamification approach puts emphasis on the idea that the ESL lecturers establish the class as a game instead of applying games during the teaching session. In terms of vocabulary learning, university students learn vocabulary throughout the entire gamified class using the games constructed by their lecturers (Putz et al., 2020). Since there are several challenges issued by vocabulary teaching in classrooms, gamification in vocabulary learning is regarded as a good option to create an engaging and practical learning experience, as highlighted by Park and Kim (2021).

A vocabulary learning environment that centralises the interactive and innovative use of gamification is strategised to replace the conventional learning method, which does not bring a huge impact on the students' vocabulary acquisition, as proposed by Putz et al. (2020). They emphasise that gamification possesses an ideal concept to aid lecturers in promoting social engagement in teaching vocabulary. According to Panmei and Waluyo (2023), gamification in vocabulary learning is discovered to bring more enthusiasm toward the involvement of various learning methods that stimulate the auditory, visual, verbal, and other senses. Students get the chance to experience an engaging learning style whenever and wherever they want throughout their learning processes. Additionally, it encourages flexibility in education as an engaging environment may be built when adopting gamification in vocabulary learning (Majdoub, 2021).

As proposed by Govender and Amedo-Moreno (2021), gamified vocabulary learning commonly consists of the elements of feedback, levels, scoreboards, obstacles, and competition. These elements can ensure active engagement and a better monitoring process by the lecturers (Al-Dosakee & Ozdamli, 2021). According to Genc and Belet (2021), game elements such as achievement, rewards, and narrative arcs pique the students' interest in learning. In terms of vocabulary learning, promoting points, bonuses, and power-ups can stimulate the students' desire to learn new words as much as possible to win the game (Majdoub, 2021). Moreover, gamification in vocabulary learning is also stated to be a practical learning approach during lectures. According to Nikmah (2020), they claim that due to its practicality and adaptability, gamified vocabulary learning can encourage students to engage in a proactive learning environment and enhance their vocabulary knowledge at the end of the learning process. Many students have preferred gamified vocabulary learning by the course content and have demonstrated a favourable attitude towards the gamified vocabulary learning strategy overall. Hence, the concept of gamification has a high potential to aid vocabulary learning.

#### **2.5. University Students' Perspectives on Gamification in Vocabulary Learning**

Gamification in vocabulary learning has grown swiftly to solve several challenges of

traditional vocabulary learning methods (Al-Dosakee & Ozdamli, 2021). University students have diverse perspectives regarding the implementation of gamification in vocabulary learning. In general, they view gamification in vocabulary learning as a good platform to enhance their vocabulary knowledge. According to Kiyancicek and Uzun (2022), they believe that gamification can aid in improving their motivation to learn as well as ensuring more productive participation. When they show delight and active participation to learn vocabulary, there will be an encouraging learning atmosphere during the lectures (Li et al., 2022). As mentioned by Garcia-Iruela and Hizon-Neira (2020), the students believe that gamification in education has an impactful influence on the development of essential learning skills, including problem-solving and effective communication. However, there are also some negative perspectives on gamification in vocabulary learning which should be highlighted.

In terms of the positive perspectives on gamification in vocabulary learning, Devendren and Nasri (2022) have shown that gamification can give a more interesting and richer learning environment to students. During the vocabulary learning process, they can be more thrilled to learn and hence, increase their vocabulary knowledge (Fu et al., 2021). Moreover, university students give credence to gamification as it helps vocabulary learning to be more engaging and promotes healthy competition among the students, as mentioned by Majdoub (2021). According to Nikmah (2020), they are more competitive, diligent, and successful when learning management systems have leaderboards. This backs up Al Dosakee and Ozdamli's (2021) findings that some benefits of gamification include encouraging healthy competition, motivating students, and realising results. Leaderboards provide students the opportunity to evaluate their performance against one another graphically, which may have enhanced their motivation and thus influence how they perceive the learning processes. Besides, students may track their academic achievement by using the integrated game features' immediate feedback (Denisova et al., 2019). The drive to continue from the rapid feedback also inspires and makes online learning more fascinating. Additionally, students claimed that the inclusion of gaming aspects raised the degree of engagement for online learning. These findings are in line with other studies, such as that by Dindar et al. (2021) which showed that gamification provides feedback that students value.

Moreover, another positive perspective on gamification in vocabulary learning is it aids in increasing the students' motivation and initiative to learn vocabulary efficiently (Garcia-Iruela & Hizon-Neira, 2020). They understand how important vocabulary knowledge is to succeed and are naturally motivated to learn more and develop their vocabulary skills (Ahmed et al., 2022). By offering vocabulary games that focus on understanding and comprehension, the gamified vocabulary learning process also aims to maximise students' productivity. Due to their high productivity, they are better able to respond creatively and critically to various learning challenges and activities presented during gamified vocabulary learning (Nikmah, 2020). Besides, it is made more cognitively stimulating by including gaming components (Dindar et al., 2021). Students perceive themselves as being more capable, having better memory retention and knowledge retrieval skills, paying more attention to their studies, and being more aware of any new opportunities in vocabulary learning that boost their motivation to learn (Park & Kim, 2021). Hence, these are discovered to be the motivating influence of gamified vocabulary learning on university students.

In terms of the negative perspectives on gamification in vocabulary learning, it is essential to highlight that not all students view gamification as beneficial in learning

vocabulary. Several issues have been addressed by the students concerning this issue. As proposed by [Denisova et al. \(2019\)](#), some students experience a few barriers in adapting to the element of gamification in the lectures. One of the most significant barriers is poor Internet connection during the games. According to [Devendren and Nasri \(2022\)](#), several students have reported feelings of dissatisfaction due to the quality of the Internet connection during gamified vocabulary learning. If every student is utilising the Internet network simultaneously, they might have some difficulties in terms of connecting to the games successfully and slow Internet buffering. Moreover, the fact that several games are timed and they are unfamiliar with technology might be the reasons why some of the students feel intimidated to participate in the games during vocabulary learning ([Li et al., 2022](#)). In terms of digital literacy, some of them regard gamification in vocabulary learning as arduous as they are not competent enough in handling technology-based learning ([Lui, 2014](#)). They hesitate to try the games due to their lack of technology skills. Hence, they might not be able to take the risk of embarrassing themselves during the learning process. Therefore, in the future, these challenges should be considered and taken into consideration for the betterment of the quality of gamified vocabulary learning.

### 3. Discussion

Based on the review of the relevant literature concerning gamification in vocabulary learning, it is highlighted that gamification is viewed as having a good potential to be adopted by lecturers to aid vocabulary learning. This statement can be supported by a suggestion by [Jordan et al. \(2023\)](#) that university students should be exposed to effective vocabulary learning methods that facilitate them in improving their vocabulary acquisition.

In terms of the importance of incorporating gamification in vocabulary learning, it is a preferred learning approach adopted by ESL lecturers in tertiary academic institutions due to its convenience. It involves creating tasks and activities based on game mechanics, rather than applying them during the teaching session ([Fu et al., 2021](#)). Gamification in difficult areas of study is regarded as valuable and demanding ([Dehganzadeh & Dehganzadeh, 2020](#)). A gamified vocabulary learning environment is proposed to replace conventional learning methods. To support this statement, gamification in vocabulary learning is also regarded as an engaging learning style that encourages flexibility in education ([Devendren & Nasri, 2022](#)). It consists of feedback, levels, scoreboards, obstacles, and competition ([Govender & Amedo-Moreno, 2021](#)). Game elements such as achievement, rewards, and narrative arcs can pique the students' interest in learning ([Genc & Belet, 2021](#)). [Denisova et al. \(2019\)](#) support this statement by stating that it is also a practical learning approach during lectures, and many students have preferred it. Hence, gamification has a high potential to aid vocabulary learning.

Based on the use of gamification in online learning, it has been discussed that in general, game-based learning applies the elements of games in a set of tasks instructed in classrooms ([Anak Yunus & Hua, 2021](#)). This statement is supported by a review by [Abadi et al. \(2022\)](#) that the focus of the gamification approach is that the learning process is entirely a game that is participated by the students in the particular classroom. It is regarded as an interesting element in the learning process that aids the students' interest ([Ali & Abdalgane, 2022](#)). This statement is supported by [Dehganzadeh and Dehganzadeh \(2020\)](#) that gamification enables students to challenge themselves to learn and acquire the lesson better. Gamification in vocabulary learning has grown rapidly to



solve several challenges of traditional vocabulary learning methods (Barghani, 2020). This statement is in line with Fithriani's (2021) finding that university students view gamification as a good platform to enhance their vocabulary knowledge.

In terms of the positive perspectives on gamification in vocabulary learning, it is discovered that it provides feedback that students value (Dindar et al., 2021). Gamification in vocabulary learning has been found to increase students' motivation and initiative to learn vocabulary efficiently (Diaz et al., 2022). It is also made more cognitively stimulating by including gaming components. Another perspective is the students state that they can take initiative and acquire vocabulary more effectively (Garcia-Iruela & Hijon-Neira, 2020). Ahmed et al. (2022) support this statement by stating that they are innately driven to study more and improve their vocabulary because they are aware of how crucial vocabulary knowledge is to success. Moreover, the gamified vocabulary learning method also attempts to enhance students' productivity by providing vocabulary games that concentrate on knowledge and comprehension. They are reported to be better equipped to respond critically and creatively to several learning challenges and activities offered during gamified vocabulary learning due to their high productivity (Nikmah, 2020). Additionally, adding gaming elements increases their cognitive stimulation (Waluyo & Bucol, 2021). During the vocabulary learning processes, they view themselves as being capable and can remember things better (Fu et al., 2021).

In terms of the negative perspectives on gamification in vocabulary learning, some students experience barriers in adapting to the element of gamification, such as poor Internet connection, intimidation, and lack of digital literacy. These challenges should be considered and considered for the betterment of the students. Several perspectives regarding gamification in online vocabulary learning have brought a conclusion that gamification is viewed as having a good potential and at the same time, a challenging task in vocabulary learning (Devendren & Nasri, 2022). Bai et al. (2020) state that students believe in the good influences of using gamification in learning but the statement is contrary to a statement by Denisova et al. (2019) that they find it challenging due to their lack of digital literacy in operating the technology adopted during the vocabulary learning. Hence, ESL lecturers should be critical and creative in managing gamification in vocabulary learning processes to ensure that it can be conducted smoothly and effectively.

#### **4. Conclusion**

Gamification in online vocabulary learning is viewed as having a good potential to be adopted by lecturers to aid vocabulary learning. It is a preferred learning approach adopted by ESL lecturers in tertiary academic institutions due to its convenience. Gamification is an engaging learning style that encourages flexibility in education and consists of feedback, levels, scoreboards, obstacles, and competition. Gamification has grown rapidly to solve several challenges of traditional vocabulary learning methods, and university students view it as a good platform to enhance their vocabulary knowledge. However, there are also some negative perspectives on gamification in vocabulary learning which should be highlighted.

Gamification in vocabulary learning has been found to increase students' motivation and initiative to learn vocabulary efficiently. It is also made more cognitively stimulating by including gaming components. University students also perceive gamification in

vocabulary learning as engaging, practical, and flexible. However, some students experience barriers in adapting to the element of gamification, such as poor Internet connection, intimidation, and lack of digital literacy. These challenges should be considered for a better future of gamified vocabulary learning.

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