

THE FACTORS INFLUENCING SPACED REPETITION IN LEARNING ENGLISH VOCABULARY AS A SECOND LANGUAGE IN VIETNAM – ID: #1920

Membership ID: VietTESOL-05363

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INTRODUCTION

Vocabulary is widely recognized as one of the most fundamental components of second language (L2) proficiency because it directly influences learners' listening, speaking, reading, and writing abilities. According to Nation (2013), vocabulary acquisition is cumulative and requires repeated exposure to lexical items in meaningful contexts before learners can fully understand and use them accurately. Consequently, researchers have increasingly emphasized the importance of instructional approaches that promote long-term retention rather than short-term memorization. Among these approaches, spaced repetition (SR) has been consistently identified as one of the most effective learning strategies (Smolen et al., 2016; John Dunlosky et al., 2013).

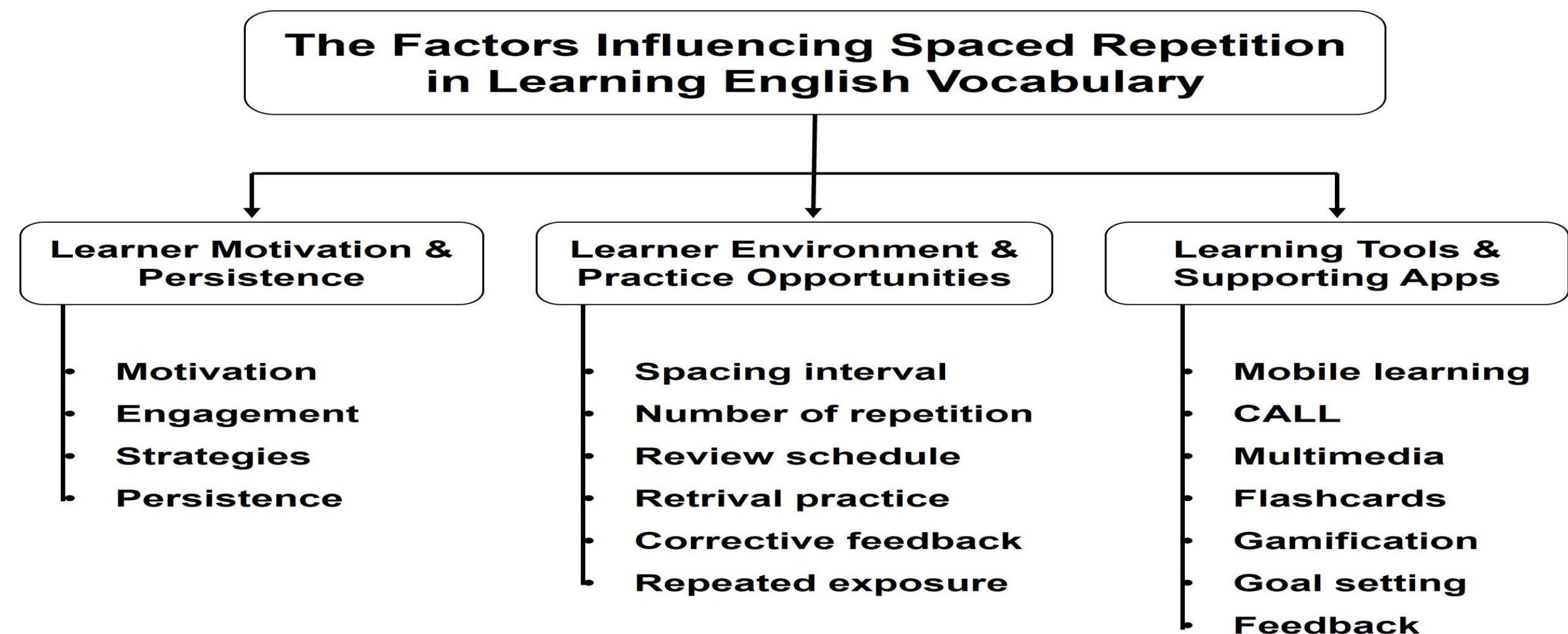
METHODOLOGY

Participants: Mixed methods between qualitative and quantitative research

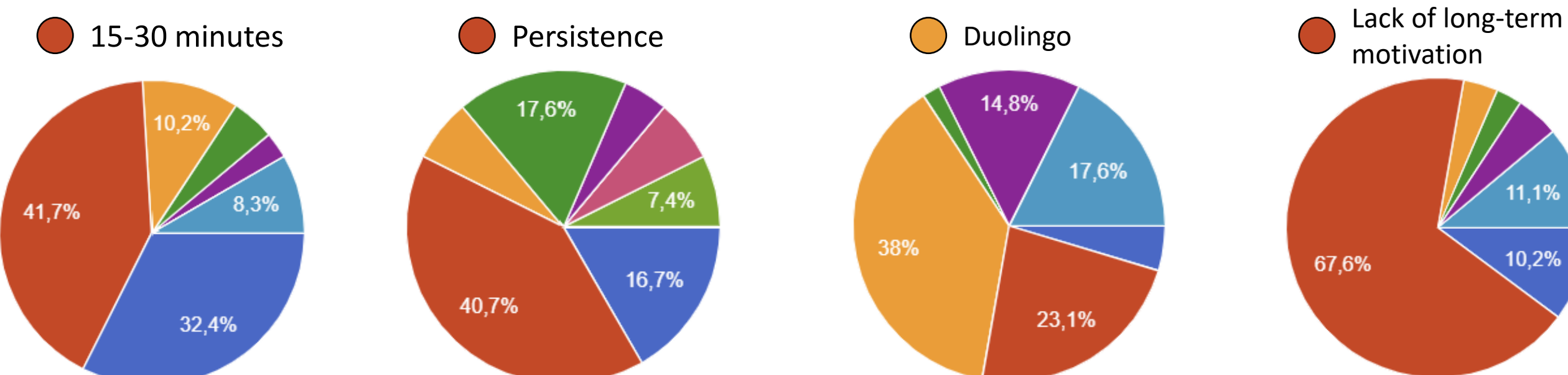
Qualitative research Interview		Quantitative research Questionnaire
Experts	Students	Students
3	5	108

Design: Sequential mixed methods design

Interview	1. What factors influence the effectiveness of Spaced Repetition in learning English vocabulary among Vietnamese students? And which factor has the greatest impact, and why? 2. What is the biggest limitation of applying the Spaced Repetition method to English vocabulary learning for students in Vietnam? 3. What conditions or factors need to be ensured so that students can apply the Spaced Repetition method effectively?
Questionnaire	4. How much time do you spend studying English vocabulary each day? 5. What tools/software do you typically use to apply the Spaced Repetition method when learning English vocabulary? 6. How effective would you rate the Spaced Repetition method compared to traditional vocabulary learning methods (memorization, writing words repeatedly)? 7. Do you often combine the Spaced Repetition method with other English practice activities (listening, speaking, reading, writing)?



Diagrams of Questionnaire Survey



LITERATURE REVIEW

Learner Motivation and Persistence reflects learners' level of initiative, commitment, and ability to maintain a regular review schedule. This contributes to the success of the spaced repetition method. According to Smolen, Zhang, and Warren (2016), the effectiveness of spaced repetition depends on learners carrying out review sessions at optimal intervals to facilitate the processes of memory consolidation and retrieval. In addition, the meta-analysis conducted by Uchiyama, Webb, and Yanagisawa (2020) showed that the effectiveness of spaced repetition is significantly influenced by *learner characteristics*, including *learning motivation*, *vocabulary knowledge*, *language proficiency*, *age*, and *learning engagement*. There is no fixed number of repetitions that can ensure all learners remember new vocabulary equally well, as learning effectiveness also depends on the factors mentioned above (Webb, 2007). Similarly, another study demonstrated that vocabulary acquisition is influenced by the frequency of *word encounters*, *learners' vocabulary knowledge*, and their *level of text comprehension* (Zahar, Cobb, & Spada, 2016). Active learner engagement in the processes of retrieval and information processing is an important condition for maximizing the effectiveness of long-term vocabulary retention (Elgort & Warren, 2014).

The learning environment and the frequency/duration of practice have a significant influence on the effectiveness of the spaced repetition method. Numerous studies have indicated that spaced repetition is more effective when learners repeatedly *encounter and use vocabulary in meaningful contexts* rather than memorizing words mechanically (Hirschel & Fritz, 2013). Combining spaced review with *language practice in authentic communicative situations* enhances learners' long-term vocabulary retention and use (Peters & Webb, 2018). Similarly, according to Smolen, Zhang, and Byrne (2016), they analyzed the *neurological mechanisms* underlying learning and confirmed that spaced repetition with longer intervals produces more durable memories than massed learning, particularly when combined with *meaningful practice environments*. In information-rich contexts, learners simultaneously develop multiple dimensions of vocabulary knowledge, including word meaning, spelling, pronunciation, grammatical functions, and collocational knowledge (Webb, 2007). Furthermore, Lotfolahi and Salehi (2017) demonstrated that learners achieved significantly better long-term vocabulary retention when they *practiced vocabulary through collaborative activities, pair work, and spaced review* than through massed learning.

Digital tools and applications enable learners to implement the spaced repetition method more effectively, conveniently, and consistently. The use of *flashcards and multimedia* support for improving vocabulary retention. Webb (2007) demonstrated that *testing learners' ability* to recall vocabulary through a variety of task formats produces better learning outcomes than simply rereading learning materials. In their study, Uchiyama and Yanagisawa (2020) identified *test format*, *spaced learning conditions*, and *visual support* as important factors that significantly influence the effectiveness of spaced repetition in vocabulary learning. Based on an empirical study involving 72 Chinese learners, Zhang, Zou, and Xie (2021) found that learners preferred applications that *integrated text, audio, and images*, provided multiple forms of retrieval practice, and incorporated *gamification features such as learning goals, rewards, and time limits*. Similarly, Ameen (2026) confirmed that *digital gamification* integrated into learning applications not only supports the technical implementation of spaced repetition but also enhances the motivation and engagement of ESL learners. In addition, Smolen, Zhang, and Byrne (2016) emphasized that learning technologies can automate review schedules, helping learners maintain optimal spacing intervals and strengthen the process of long-term memory consolidation. This explains why applications such as *Anki, Quizlet, and Duolingo* are highly regarded for effectively implementing spaced repetition in practical vocabulary learning.

CONCLUSION

SUMMARY OF FINDINGS

- (1). Learner Motivation and Persistence
- (2). Learning Environment and Practice Opportunities
- (3). Learning Tools and Digital Applications

LIMITATIONS

- (1). No experimental design
No pre-test/post-test; relies on self-reported data.
- (2). Cross-sectional study
No longitudinal tracking of learning habits or vocabulary retention.

REFERENCES

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FINDING & DISCUSSION

(1). English Proficiency and Vocabulary Learning Habits

The results of the random survey (n = 108) showed that most participants had elementary to intermediate English proficiency, with 29.6% at the A2 level and 27.8% at the B1 level. They devoted relatively little time to vocabulary learning, primarily 15–30 minutes per day (41.7%) and less than 15 minutes (32.4%). Among the in-depth interview participants, most were at the C1 (60%) and B2 (20%) levels, with similar study durations (less than 15 minutes: 40%; 15–30 minutes: 20%). Data from both sources indicate that Vietnamese university students typically study vocabulary in relatively short sessions. This learning pattern is well suited to the implementation of spaced repetition. According to the experts, the effectiveness of this method depends not on the total amount of study time but on the consistency of review according to an appropriate schedule. These findings are consistent with previous studies showing that shorter but regularly repeated learning sessions produce stronger long-term memory than massed learning (Smolen et al., 2016; Webb, 2007).

(2). Learner Motivation and Persistence

The survey and interviews consistently identified learner motivation and persistence as the most influential factors affecting the effectiveness of spaced repetition. In the random survey, persistence (40.7%) and learning motivation (16.7%) together accounted for the majority of responses. Both the in-depth interviews and expert interviews confirmed that maintaining a regular review schedule, appropriate review frequency, and learner self-discipline are the key determinants of successful spaced repetition. The greatest challenge identified was the lack of long-term motivation and the tendency to interrupt review schedules, reported by 67.6% of survey respondents. Students often experience difficulties due to academic workload, part-time employment, and limited self-discipline. This explains why many learners discontinue the method despite recognizing its effectiveness. Overall, the consistency between the quantitative findings, qualitative data, and expert opinions indicates that learner motivation and persistence are the primary determinants of successful spaced repetition, while the learning environment serves as a complementary factor that maximizes its effectiveness.

(3). Learning Environment and Practice Opportunities

In the survey, 17.6% of students identified the English learning environment as an important factor influencing the effectiveness of spaced repetition. Although this proportion was lower than that of learner persistence, it remained one of the three most frequently selected factors. The expert interviews provided further insights into this issue. All experts agreed that vocabulary should be reviewed and used in meaningful contexts rather than memorized in isolation. They emphasized that meaningful learning environments are an essential condition for the successful implementation of spaced repetition. The qualitative findings therefore provide deeper explanations for the quantitative results, demonstrating that language practice in authentic contexts is necessary to maximize the effectiveness of spaced repetition.

(4). Learning Tools and Digital Applications

Regarding technology use, Duolingo (38.0%) was the most widely used application, followed by Quizlet (23.1%). However, 17.6% of respondents reported that they did not use any digital applications for vocabulary review, while only a small proportion used Anki. The expert interviews confirmed that digital applications can substantially facilitate the implementation of spaced repetition. Nevertheless, all three experts emphasized that technology functions only as a supporting tool. Without learner motivation and consistent study habits, even the most advanced applications cannot ensure successful long-term vocabulary retention.

(5). Challenges in Applying Spaced Repetition

The random survey revealed that 67.6% of respondents considered maintaining long-term learning motivation to be the greatest challenge when applying spaced repetition. Similarly, the experts identified irregular review frequency and inconsistent review schedules as the major obstacles faced by Vietnamese university students. Because of these interruptions, the optimal review intervals required for memory consolidation are disrupted. As a result, learners tend to forget previously learned vocabulary more easily, reducing long-term retention and making it difficult to achieve sustainable learning progress. Furthermore, academic workload, part-time jobs, and limited self-discipline increase the likelihood of distraction and discontinuation of the review process. These findings suggest that the primary challenge of spaced repetition lies not in the method itself but in learners' ability to maintain consistent learning habits over time. Consequently, strengthening learner motivation, establishing regular review routines, and utilizing digital reminder tools are essential to maximize the effectiveness of spaced repetition in English vocabulary learning.