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The Impact of a Gamified Platform on Vocabulary Acquisition in EFL Learners

This article examines how the use of Mondly, a gamified mobile language-learning application, influences the acquisition of selected English vocabulary among first-year university students with beginner and elementary proficiency levels. The study was conducted in a formal EFL learning context and focused both on measurable vocabulary gains and on learners' perceptions of mobile gamified practice. A pre-experimental one-group design was applied. Twenty students completed a Vocabulary Knowledge Scale before and after a four-week period of guided Mondly practice. The primary objective was to assess the effectiveness of the platform in enhancing lexical knowledge and to identify student attitudes towards this gamified approach compared to traditional approaches to vocabulary development. Data were collected using a Vocabulary Knowledge Scale (VKS), administered pre- and post-intervention, and a post-intervention questionnaire to ascertain student motivation, enjoyment and overall preference. The results indicate that structured use of Mondly may support vocabulary development, especially when it is integrated as a supplementary tool rather than used as a replacement for classroom instruction. The findings have implications for instructors and course designers who seek to implement digital platforms in foreign language learning to facilitate engagement and improve vocabulary learning outcomes.

Keywords: Gamification, Vocabulary Acquisition, MALL (Mobile-Assisted Language Learning), Vocabulary Knowledge Scale, EFL (English as a Foreign Language), Mondly, Technology-Enhanced Learning, Student Motivation.

Introduction

Vocabulary knowledge is one of the main conditions for successful participation in foreign-language communication. For first-year EFL students, limited lexical competence often becomes a barrier not only to speaking but also to reading, listening comprehension and written production. Even when learners understand basic grammatical structures, insufficient vocabulary restricts their ability to express ideas accurately and to interpret messages in academic and everyday contexts. D.A. Wilkins' well-known statement that communication is hardly possible without vocabulary highlights the central role of lexis in language learning. In the context of EFL instruction, this means that vocabulary should not be treated as a secondary component of the curriculum [1].

Listening requires the student to decode vocabulary in real time as it is pronounced, whereas reading requires comprehension of content while identifying and interpreting words. The learner must also retrieve and employ words when completing speaking and writing tasks. N. Schmitt (2000) emphasizes that lexical knowledge is central to communicative competence and second-language acquisition [2]. Similarly, M. McCarthy emphasizes the central role of vocabulary in effective language use [3].

In many EFL classrooms, vocabulary is still introduced through lists of isolated words, bilingual translation, repetition and memorization exercises. Although these practices can be useful at the initial stage of word recognition, they often provide limited opportunities for meaningful use. As a result, learners may remember a word for a short period but fail to retrieve it later in speaking or writing. According to N. Schmitt (2000), this limitation is particularly important for beginner-level students, who require frequent exposure, contextualized practice and motivational support [2; 133]. Lack of ongoing learner involvement is one of the biggest problems with traditional techniques [4]. While active use and constant exposure are necessary for

vocabulary retention, isolated memorization activities and repetitive exercises might eventually sap interest [4; 220].

Given that motivation and engagement are commonly acknowledged as key drivers of successful language learning by Z. Dörnyei, the inadequacy of conventional methods highlights the need for more creative and effective learning materials [5]. This disparity highlights the need to investigate a number of approaches for improving word-learning in EFL environments, especially those incorporating enjoyment, individualization and interactivity [6]. Digital gamified applications offer one possible response to these difficulties. By combining short learning tasks with points, levels, progress indicators and immediate feedback, such tools may increase the frequency of practice and make vocabulary revision less monotonous. For EFL learners, this is especially relevant because lexical growth depends on repeated encounters with words in varied contexts.

Although gamification for learning has been demonstrated to have high potential, its application within language learning has been particularly remarkable. Among the commercially successful instances is Mondly, a widely used gamified platform that incorporates multiple interactive tools for vocabulary learning. The app structures its content into bite-sized thematic lessons that resemble levels and become increasingly challenging. To sustain learner motivation, students earn points and scores for completing exercises, and their progress is tracked through visual cues such as streaks and progress bars. Mondly also makes use of interactive exercises that go beyond rote memorization; these include matching exercises, word-order drills, listening comprehension and speaking practice — some of which are enhanced by virtual reality and augmented reality (VR/AR) components. Interestingly, the system leverages spaced repetition in its review system, allowing learners to rehearse words at optimally spaced intervals, which is a long-established principle of long-term memory consolidation [7].

Mondly was selected for this study because its learning structure combines several features that are relevant to vocabulary acquisition. The application presents words and phrases through short thematic units, provides immediate feedback and encourages regular practice through visual progress indicators. Unlike traditional paper-based vocabulary tasks, Mondly allows learners to repeat lexical items in listening, matching, sentence-building and pronunciation activities. These features make it suitable for examining how mobile gamified practice may influence vocabulary learning among beginner EFL students. This research aims to investigate the impact of employing the gamified language learning application Mondly on vocabulary learning by first-year university EFL students. By exploring receptive and productive vocabulary knowledge, along with learner attitudes, the research aims to evaluate Mondly as a supplementary learning resource in formal EFL instruction.

Research Questions.

The following research questions serve as the basis for this study:

RQ1: To what extent does the use of Mondly contribute to changes in EFL students' vocabulary knowledge after a four-week intervention?

RQ2: How do students evaluate Mondly in comparison with traditional vocabulary-learning practices in terms of motivation, interest and preference?

Vocabulary knowledge is usually viewed as a multidimensional construct. At the basic level, learners may only recognize a word when they hear or read it. At a more advanced level, they can recall the word independently and use it appropriately in oral or written production. This distinction between receptive and productive lexical knowledge is important for the present study because mobile applications may support recognition and controlled practice more directly than spontaneous communicative use [4; 223].

N. Schmitt (2010) emphasizes the gradual process of vocabulary learning, stating that repeated exposure within contexts is required for learners to develop breadth and depth in knowledge [8]. The learners can proceed at their own speed and review materials as they please [9].

Deterding et al. provide a seminal definition, defining gamification as “the use of game design elements in non-game contexts”. Such design elements include points, badges, levels, challenges, leaderboards and instant feedback, all of which can be used in learning environments [10]. The educational appeal of gamification is commonly explained in the language of Self-Determination Theory (SDT), an extensively empirically grounded model of human motivation [11]. At a general level, systematic reviews have incorporated findings from different studies. As an example, Dehghanzadeh et al. examined a wide range of studies in gamification in English as a second language (ESL) learning [12].

M.H. Al-Khreshah examined teachers' perspectives on integrating ChatGPT into English language teaching [13]. Nurfadhilah et al. discussed challenges in EFL vocabulary acquisition and the use of gamified

learning strategies to improve engagement and retention [14]. D. Aco and E. Suwandi investigated the effect of gamified learning on students' motivation and vocabulary retention [15]. Y.I. Bolat and N. Taş conducted a meta-analysis of gamified-assessment tools and their effect on academic achievement in formal educational settings [16]. M.S. Mulyani and S. Suryadi provide empirical, context-specific evidence for the use of Duolingo in English language learning [17]. Their study on Indonesian EFL students measured the impact of Duolingo on learning achievement.

Loewen et al., in a study of Duolingo users, investigated language-learning outcomes associated with app use [18].

Kohnke et al. investigated mobile vocabulary-learning apps as aids to business-vocabulary knowledge retention [19]. M. Cancino and G.I. Castillo Fonseca examined the impact of a gamified approach on L2 vocabulary learning, retention and engagement [6].

Al Shihri et al. examined the effect of integrating multiple MALL applications on EFL students' academic vocabulary acquisition and learners' experiences [20]. Mihaylova et al. conducted a meta-analysis of mobile-assisted language-learning applications, finding an overall benefit for L2 learning while also identifying substantial risk-of-bias and evidence-quality limitations [21]. R. Zhang and D. Zou reviewed the modes and effectiveness of multimedia input for second- and foreign-language learning [22].

However, most studies have concentrated on well-known platforms such as Duolingo, leaving other commercially successful applications such as Mondly unexplored. This gap underscores the need for empirical investigations into how Mondly's specific gamified features contribute to vocabulary learning in EFL contexts. However, despite its prominence in the market and its distinct feature set including a strong emphasis on conversational phrases, integration of virtual and augmented reality (VR/AR) modules and a specific gamification structure there remains a notable scarcity of independent, empirical research examining the effectiveness of the Mondly application.

This absence of systematic inquiry represents a clear gap in the literature. By focusing on Mondly, this research not only extends the body of work on gamification and MALL but also provides practical insights for educators considering the integration of commercial applications into formal instruction.

Methods and Materials

This section introduces the research design, participants, materials, procedure and analysis methods employed to investigate the impact of the Mondly app on vocabulary acquisition and the assessment of user satisfaction among first-year EFL learners. This study used a one-group pre-test–post-test pre-experimental design. It was adopted in order to assess potential vocabulary knowledge changes among participants after a controlled intervention on the gamified Mondly app. As the study lacks a control group, its primary aim remains descriptive, seeking to quantify perceived learning gains and user satisfaction in a specific setting, as opposed to establishing firm causal effects.

Participants.

The participants were a convenience sample of 20 first-year students from International University of Tourism and Hospitality enrolled in the English as a Foreign Language program (10 male, 10 female). The students ranged in age from 17 to 20 years. All of the participants were at the beginner-to-elementary level (A1–A2 on the CEFR scale) as indicated by their university placement test scores. The students participated voluntarily and informed consent was obtained from all participants. Anonymity and confidentiality were guaranteed.

Materials and Equipment.

Three major tools were used in this study:

Vocabulary Knowledge Scale (VKS): A self-assessment test developed by M. Wesche and T.S. Paribakht was used to determine participants' vocabulary knowledge of 15 target words selected from the beginner lessons of the Mondly app [23]. The VKS uses a 5-point scale ranging from complete unfamiliarity to the ability to use a word correctly in a sentence: 1. I have never encountered this word before; 2. I have seen this word before, but I do not know what it means; 3. I have seen this word before and I think it means ...; 4. I know this word. It means ...; 5. I can use this word in a sentence. Scores were calculated by assigning a value from 1 to 5 to each level.

The Mondly App: The gamification-based language-learning application Mondly was used as the intervention app. Participants were asked to complete four assigned levels of the "Beginner" course, one level per week. These levels covered thematic vocabulary such as greetings, family and numbers.

User Satisfaction Questionnaire: A post-intervention questionnaire was used to assess perceptions of enjoyment, usability, perceived learning and motivation on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Example items included “I found the gamification aspects of Mondly motivating” and “I feel that my vocabulary developed after using Mondly”.

Procedure.

The experiment took place over a period of 4 weeks under a protocol:

Week 1 (Pre-test): The goal of the study was explained and informed consent was obtained. The VKS pre-test was self-administered and took approximately 20 minutes to complete. Weeks 1-4 (Intervention): Participants were requested to install the Mondly app on their own smartphones and use it for a minimum of 15 minutes a day, 5 days a week, for 4 consecutive weeks.

They were asked to complete the assigned levels (1-4). Participants were reminded to sustain adherence by sending the log sheet weekly through email documenting the daily use duration. Week 4 (Post-test and Survey): Members convened again.

To begin, the same VKS was administered as a post-test. Upon completion, the post-intervention User Satisfaction Survey was distributed. The session lasted a total of roughly 30 minutes.

Data Analysis.

The information collected was processed using the Statistical Package for the Social Sciences (SPSS) software version 25. Vocabulary Knowledge Scores: Total pre-test and post-test scores on the VKS were compared descriptively to evaluate changes in vocabulary scores following the intervention.

Satisfaction Survey (Likert Scale): Descriptive statistics, i.e., means (M) and standard deviations (SD), of all 10 Likert-scale items were calculated to determine the central tendency and variability of participants' responses on satisfaction and perceived utility.

Results and Discussion

This section presents the results of the study on the use of the Mondly app for vocabulary acquisition among first-year EFL students. The findings are reported through pre-test and post-test descriptive statistics and reliability analyses of the instruments. Reliability analysis assessed internal consistency. The Vocabulary Knowledge Scale showed Cronbach's alpha coefficients of 0.913 for the 15 pre-test items (Table 1) and 0.842 for the 15 post-test items (Table 2). Both coefficients exceed the commonly used 0.70 benchmark and indicate acceptable-to-high internal consistency.

Table 1

Reliability statistics of the pre-test

Cronbach's Alpha	N of Items
,913	15

Table 2

Reliability statistics of the post-test

Cronbach's Alpha	N of Items
,842	15

Table 3

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre_Total	20	1,60	3,87	2,7367	,62182
Post_Total	20	3,67	4,80	4,3200	,36232

The pre-test scores (Pre_Total) indicate that the participants (N = 20) entered the intervention with varying levels of vocabulary knowledge, with scores ranging between 1.60 and 3.87 (Table 3). The mean score of 2.74 (SD = 0.62) indicates generally low prior knowledge of the target vocabulary items, with varia-

bility among participants at the outset. Following the intervention, post-test scores (Post_Total) showed higher values on the reported descriptive measures.

The score range shifted to 3.67-4.80 and the mean score rose to 4.32. The standard deviation declined to 0.36, representing approximately a 42 % reduction in variability compared with the pre-test. This pattern indicates higher post-test vocabulary scores and less dispersion across participants. To address the second research question, a preference questionnaire was administered at the conclusion of the intervention phase. Cronbach's alpha values of .908 and .916 are reported for the two 10-item reliability analyses shown in Tables 4 and 5.

Table 4

Reliability statistics of questionnaire scale 1

Cronbach's Alpha	N of Items
,908	10

Table 5

Reliability statistics of questionnaire scale 2

Cronbach's Alpha	N of Items
,916	10

The findings showed clear patterns in students' ratings. Table 6 reports aggregate mean scores for Mondly_Total and Traditional_Total; these values should be interpreted together with the item-level ratings reported below.

Table 6

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mondly_Total	20	1,40	4,80	3,1500	1,21720
Traditional_Total	20	2,00	5,00	3,3700	1,16307

Table 6 shows an aggregate mean of 3.15 (SD = 1.22) for Mondly_Total and 3.37 (SD = 1.16) for Traditional_Total; therefore, the aggregate totals do not show a higher overall rating for Mondly. At the item level, Motivation was rated highly (M = 4.35, SD = 0.67). Enjoyment Level was also high (M = 4.25, SD = 0.72). Perceived Effectiveness (M = 4.10, SD = 0.79), Ease of Use (M = 4.15, SD = 0.81), and Overall Preference (M = 4.20, SD = 0.70) were all above the neutral midpoint, indicating positive attitudes toward the platform.

The relatively low standard deviations reported for the item-level measures, particularly Motivation (SD = 0.67) and Overall Preference (SD = 0.70), indicate relatively consistent responses on those items. These item-level ratings support positive attitudes toward Mondly, but Table 6 does not support the stronger claim that Mondly received a higher aggregate preference score than traditional approaches.

The study addressed two main issues: vocabulary-score changes during Mondly use and students' attitudes toward gamified practice relative to traditional vocabulary-learning practices. The results showed higher post-test VKS scores and generally positive item-level ratings of Mondly. The discussion below relates these findings to established theory and prior research.

The VKS mean increased descriptively from 2.74 before the intervention to 4.32 after the intervention. Because the study used a one-group pre-test-post-test design, this within-group change should not be interpreted as a controlled between-method effect. Psychological needs for competence, autonomy and relatedness are central to Self-Determination Theory [11; 72].

This motivational framework is consistent with Dehghanzadeh et al.'s systematic review [12; 941], which reports generally positive learning experiences and outcomes in gamified English-learning environments. Positive motivation ratings in the present study may be compatible with this broader pattern, although the one-group design does not establish that motivation caused the vocabulary-score change. N. Schmitt [2; 119] and I. S. P. Nation [4; 98] discuss the importance of sustained, repeated vocabulary learning.

One important consideration is the assessment design. The study used the same VKS before and after the intervention and did not include a control group. Accordingly, the observed increase should be interpreted as a within-group pre-test–post-test change rather than as a causal estimate of Mondly’s effect.

The VKS reliability coefficients were $\alpha = .913$ at pre-test and $\alpha = .842$ at post-test. The questionnaire reliability outputs were $\alpha = .908$ and $\alpha = .916$. Table 6 reports $SD = 1.22$ for Mondly_Total and $SD = 1.16$ for Traditional_Total, indicating substantial individual variation in the aggregate ratings.

Learner heterogeneity can be considered in light of Z. Dörnyei’s work on individual differences [5; 178]. Learning style, technology attitudes and personal motivation may influence students’ responses to digital vocabulary practice. Because this study did not assign separate Mondly and traditional-instruction conditions, it cannot determine which method is optimal for particular learner subgroups.

The gamified approach, on the other hand, effectively combines a number of I.S.P. Nation [4; 99] strands. It provides meaning-focused input as contextualized examples and language-focused learning through direct instruction and practice. Significantly, it strongly encourages fluency acquisition in terms of being required to identify and remember words rapidly under time constraints or as a component of game mechanics.

The descriptive VKS mean increased from 2.74 at pre-test to 4.32 at post-test. No inferential test establishing $p < .001$ is specified in the Data Analysis section, so the result is reported here as a descriptive within-group increase rather than a statistically significant effect. Dehghanzadeh et al.’s review [12; 941] provides broader evidence that gamified English-learning environments can be associated with positive learning experiences and outcomes.

The results can also be considered alongside platform-specific studies. The higher post-test VKS scores and positive item-level motivation and enjoyment ratings are broadly consistent with findings reported for other language-learning apps. Loewen et al. discuss learning outcomes among Duolingo users [18; 304]. Aco and Suwandi report links between gamified learning, motivation and vocabulary retention [15; 148].

Although this research centered on vocabulary acquisition within an app, it is important to place the findings within the larger framework of language skills. Loewen et al. [18; 305] discuss limitations of app-based learning for broader communicative development. The present study assessed vocabulary knowledge rather than spontaneous speech. Further research should therefore examine how vocabulary practiced in an application transfers to authentic communicative tasks.

The positive motivation and engagement ratings are also broadly consistent with Cancino and Castillo Fonseca’s work on gamified L2 vocabulary learning and engagement [6; 168]. This suggests that motivational benefits of gamification may occur across different learning contexts, although the mechanisms were not isolated in the present study.

Al Shihri et al. [20] found that integrating multiple MALL applications was associated with improved academic vocabulary acquisition and positive learner experiences. These findings provide a relevant comparison for the present students’ positive item-level ratings of mobile gamified practice.

There are several limitations to the study. The sample ($N = 20$) limits generalizability, and the absence of a control group prevents a controlled estimate of the intervention effect. The experiment also did not test long-term retention, an important issue in distributed-practice research [7; 372].

Follow-up research should:

1. Employ a greater sample size to capture maximum statistical power and generalizability;
2. Implement various assessment methods, including spontaneous production and writing tasks, to ascertain the transfer of vocabulary knowledge to communicative competence and to examine the constraints of app-based learning identified in previous work [18; 306];
3. Include a delayed post-test to determine whether the observed vocabulary gains persist over time;
4. Include qualitative assessment, such as interviews or open-ended responses, to better understand learner attitudes and individual differences underlying the observed performance patterns.

Lastly, the findings suggest that Mondly can be used as a supplementary vocabulary-learning tool in this specific context, but the one-group design does not establish that it is more effective than traditional instruction. Its strength may lie in combining repeated retrieval practice with motivational features. Gamified resources can therefore be integrated with classroom instruction rather than treated as a replacement. A combined approach can use teacher-led instruction to introduce and explain new vocabulary and game-based tools to provide additional repeated practice for recall and fluency.

Conclusions

This study investigated the use of the gamified platform Mondly for vocabulary learning among first-year EFL students. The mean VKS score increased from 2.74 to 4.32 over the study period, indicating a substantial within-group improvement in reported vocabulary knowledge. Because the study used a one-group pre-test–post-test design, this change should not be interpreted as a controlled causal estimate of Mondly’s effectiveness.

The observed pattern is consistent with theoretical accounts emphasizing repeated exposure, engagement and structured practice in vocabulary learning, but the present design cannot isolate which specific platform features produced the change.

This research contributes to work on gamified MALL apps as supplementary language-learning tools. For instructors, apps like Mondly can provide additional opportunities for learner engagement and independent practice. The lower post-test standard deviation may reflect convergence in scores, but it does not by itself establish that the platform caused a more homogeneous or confident class environment. Thoughtful integration of gamified learning into homework, classroom stations or enrichment practice may therefore complement traditional teaching.

However, this study also warrants a note of cautious optimism. While the results unambiguously speak to effectiveness in building explicit, testable vocabulary knowledge, they do not and cannot claim to have built complete, unscripted communicative competence. The ability to construct a sentence correctly in Mondly is an elementary skill, but it is quite a different matter from the fluency and strategic competence required to negotiate meaning in an impromptu conversation.

This same constraint, however, allows for the greatest implication on pedagogy: the need for a synergistic approach. The complete potential of gamified software like Mondly is realized not when isolated, but when combined with communicative language teaching. Imagine a classroom where Mondly is used to pre-teach and drill the vocabulary of an upcoming unit effectively. Then, in class, the teacher becomes less of a vocabulary deliverer and more of a communication facilitator, designing tasks, role-plays and discussions that push students to apply that pre-learned vocabulary to new situations in innovative ways. This model capitalizes on the strengths of both worlds: the app ensures students arrive with a sound foundation knowledge and the teacher guides them in applying that knowledge in useful ways.

With this in mind, several avenues for future research become clear. Longitudinal studies are needed to determine long-term retention of vocabulary learned through gamified apps. Most crucially, research needs to employ mixed-methods designs that combine quantitative measures like the VKS with qualitative investigations of learners’ spontaneous language use in speaking and writing tasks. This will provide a fuller picture of the transfer of learning from the app to real-life language use. Finally, a more in-depth look at the comparative importance of specific gamification elements (i.e., leaderboards vs. badges) on motivation and results would help in the design of still more engaging digital learning experiences.

In final thought, this research shows that the digital revolution in language learning is not on the horizon; it’s here, in the smartphones of our students. Gamified websites like Mondly are a significant resource in the battle to equip learners with the lexis they need. By integrating these tools in a judicious fashion into an equitable pedagogical environment that also honors productive practice and genuine communication, teachers can harness their power to create richer, more engaging and ultimately more effective language learning environments for the 21st-century learner.

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CRedit Author Statement

G.A. Rizakhoyayeva: Conceptualization, Methodology.

L.N. Abdullah: Software, Formal analysis.

Conflict of Interest Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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