

DUOLINGO GAMIFIED STRENGTH: A CASE STUDY OF VOCABULARY DEPENDENCY AMONG EFL STUDENTS

SKRIPSI



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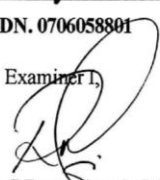
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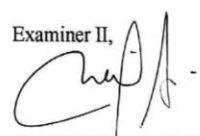
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**"DUOLINGO GAMIFIED STRENGTH : A CASE STUDY OF
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Is the result of my own original work, and all sources of information used have been clearly cited in the reference list according to the scientific and academic code of ethics. I am aware that if any violations of scholarly ethics regarding to the authenticity of this work are found, **I personally** accept the consequences in accordance with the applicable regulations and am prepared to bear legal sanctions.

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MOTTO

"Sesungguhnya sesudah kesulitan itu ada kemudahan. Maka apabila kamu telah selesai (dari suatu urusan), kerjakanlah dengan sungguh-sungguh (urusan) yang lain."

(QS. Al-Insyirah: 6-7)

"Pendidikan bukanlah proses mengisi wadah yang kosong, melainkan menyalakan api pengetahuan."

"Usaha tidak akan pernah mengkhianati hasil; setiap proses kecil adalah langkah menuju pencapaian besar."

DEDICATION PAGE

Dengan rasa syukur yang mendalam kepada Allah SWT atas segala rahmat dan karunia-Nya, karya kecil ini saya persembahkan untuk:

1. Kedua Orang Tua Tercinta, Terima kasih atas doa yang tidak pernah putus, kasih sayang yang tak bertepi, serta pengorbanan dan dukungan moral maupun materiil yang selalu menjadi kekuatan terbesar dalam setiap langkah perjalanan hidup saya.
2. Keluarga dan Kerabat, Terima kasih atas perhatian, dorongan semangat, dan bantuan yang telah diberikan selama masa studi ini.
3. Dosen Pembimbing dan Seluruh Civitas Akademika, Terima kasih atas ilmu, bimbingan, arahan, serta kesabaran yang telah diberikan hingga karya ini dapat terselesaikan dengan baik.
4. Teman-teman dan Sahabat Separjuangan, Terima kasih atas kebersamaan, cerita, canda tawa, serta tumpangan semangat dalam melewati suka dan duka selama proses perkuliahan.
5. Almamater Kebanggaan, Sebagai wujud baktiku atas ilmu dan pengalaman berharga yang telah ditempa di kampus tercinta.

ABSTRACT

This study investigates the gamification strength of Duolingo and the extent to which it fosters vocabulary dependency among EFL students. The research was conducted through a qualitative case study at SMP 2 Kalitidu, Bojonegoro, involving twenty student informants and one English teacher selected through purposive sampling. Data were collected through non-participatory observation, semi-structured interviews, and documentation, and were analyzed using an interactive model of data reduction, data display, and conclusion drawing, with trustworthiness maintained through triangulation, member checking, and persistent observation. The findings show that Duolingo's gamification features, particularly its reward, streak, and levelling systems, increased students' motivation and frequency of vocabulary practice, with eighteen of twenty informants reporting vocabulary improvement. However, four informants showed clear signs of dependency, marked by anxiety over losing their streak and difficulty studying without the application, while students who used Duolingo only for teacher-assigned tasks displayed the least autonomous vocabulary use. Four interrelated factors were identified as drivers of this dependency: psychological factors such as enjoyment and the need for achievement, application design factors such as push notifications and instant feedback, social factors centred on streak maintenance, and pedagogical factors related to accessibility and teacher integration. The study concludes that Duolingo's gamification is simultaneously a powerful motivational tool and a potential source of vocabulary dependency, so that its use needs to be balanced with contextual and communicative practice to ensure that vocabulary gained through the application transfers into genuine, real-world language use.

Keywords: gamification, vocabulary dependency, Duolingo, EFL students, mobile-assisted language learning

PREFACE

The author would like to express his gratitude to God Almighty for His grace and blessings, which enabled him to successfully complete his thesis entitled “Duolingo Gamified Strength: A Case Study of Vocabulary Dependency among EFL Students.” This thesis was written as one of the requirements for obtaining a bachelor's degree.

This thesis discusses the use of the Gamified Duolingo application in English language learning and its effect on vocabulary dependency among EFL learners. The author hopes that this research can provide benefits and contribute to the development of English language learning.

The author realizes that this thesis could not have been completed without the help of various parties. Therefore, the author would like to thank the supervising lecturer, teaching lecturers, and all those who have provided support during the process of writing this thesis.

The author realizes that this thesis still has limitations. Therefore, constructive criticism and suggestions are highly appreciated for the improvement of this research.

Bojonegoro, 12 Januari 2026

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CHAPTER I

INTRODUCTION

A. Background Of The Study

The digital era has brought significant shifts in the language learning paradigm, moving from traditional textbook-based methods toward technology-intensive approaches. One innovation in language learning is the emergence of mobile applications like Duolingo, which utilizes gamification the application of game mechanics in non-game contexts (Deterding et al., 2011). to enhance user motivation and engagement. Features such as Experience Points (XP), streaks, levels, and leaderboards are designed to maintain learning consistency and create an enjoyable learning experience (Huynh et al., 2016).

This phenomenon is also evident within the context of junior high education, including at SMP 2 Kalitidu, where many English as a Foreign Language (EFL) students use Duolingo as a supplementary, or even primary, source for learning English vocabulary. Although gamification is proven to boost both intrinsic and extrinsic motivation (Sailer & Homner, 2020). concerns have emerged regarding the potential for dependency formed through the use of this application. Such dependency may result in students becoming proficient in vocabulary only within the application's context, while struggling to use it flexibly in real-world situations or more complex academic settings.

A number of studies indicate that learning that is too isolated within a

Gamified digital environment does not always result in optimal skill transfer to real-world contexts. (Loewen et al., 2019). This aligns with criticisms from language acquisition experts who argue that applications often focus more on "conscious learning" rather than "natural acquisition" (Krashen, 2014). Therefore, a study on the influence of Duolingo's gamification and the potential dependency it creates regarding vocabulary mastery among EFL students at SMP 2 Kalitidu is essential to understanding the balance between motivational benefits and the risks of dependency in language learning.

B. Problem formulation

Based on the background outlined above, this research focuses on the dynamics of EFL students' vocabulary dependency on the Duolingo application. The research questions are formulated as follows:

1. How does Duolingo's gamification affect EFL vocabulary learning among students at SMP 2 Kalitidu?
2. To what extent does dependence on this platform affect students' ability to use vocabulary outside the application?
3. What factors cause students to become dependent on gamification features in vocabulary learning through Duolingo?

C. Research Focus

The primary focus of this research is to identify the level of vocabulary dependency of EFL students on the Duolingo application at SMP 2 Kalitidu. This study explores the interaction between the application's gamification design and student learning behavior, as well as assessing the implications

of this interaction on vocabulary mastery and the students' ability to apply it independently outside the digital environment.

D. Research objectives

Generally, this study aims to comprehensively analyze the role of Duolingo's gamification in the vocabulary acquisition process of EFL students. The specific objectives of the research include:

1. To analyze the influence of Duolingo's gamification features on the vocabulary learning methods and processes of students at SMP 2 Kalitidu.
2. To evaluate the extent to which the level of dependency on the Duolingo application has a positive or negative impact on the transfer of vocabulary knowledge to non-digital learning contexts.
3. To identify and describe the factors that drive students to develop a dependency on gamification elements within the Duolingo application.

E. Significance of the Study

1. Theoretical Significance

- a. To contribute to the literature on Second Language Acquisition, specifically in the subfields of Computer-Assisted Language Learning and educational gamification.
- b. To provide an empirical understanding of the psychological and pedagogical mechanisms that contribute to technology dependency in language learning.

2. Practical Significance

- a. For Students: To help increase critical awareness regarding the balanced use of learning applications so that motivational benefits remain optimal without creating dependency.

- b. For Teachers/Educational Institutions: To provide insights for English teachers at SMP 2 Kalitidu and other schools on how to integrate learning technology effectively, accompanied by mitigation strategies against potential dependency.
- c. For App Developers: To offer data-driven feedback on how gamification design can be optimized to not only increase motivation but also encourage knowledge transfer and learner autonomy.

F. Definition of Key Terms

To ensure a shared understanding of the constructs used throughout this study, the key terms are defined as follows:

1. **Gamification:** the application of game-design elements, such as points, levels, badges, and streaks, in non-game contexts to increase user motivation and engagement (Deterding et al., 2011).
2. **English as a Foreign Language (EFL):** a context in which English is learned as a subject in formal education for communicative purposes, rather than being used as the primary language of daily communication in the surrounding community.
3. **Vocabulary Dependency:** in this study, a condition in which a learner relies primarily or exclusively on the Duolingo application as a source of vocabulary practice, evidenced by reduced confidence or ability to recall and use vocabulary independently outside the application, and by continued app use that is driven more by habitual or emotional attachment (e.g., streak maintenance) than by communicative need.
4. **Duolingo:** a widely used mobile-based language-learning application

that employs **gamification** features such as Experience Points (XP), streaks, levels, and leaderboards to support vocabulary and grammar learning across multiple languages.

In addition, the factors that contribute to students' dependency on Duolingo's gamification features—internal and external aspects alike—include the following:

1. **Psychological Factors:** Enjoyment, satisfaction in receiving rewards, and the need for achievement.
2. **App Design Factors:** Visual appeal, instant feedback, and leveling systems.
3. **Social Factors:** Leaderboard competition and friend challenges.
4. **Pedagogical Factors:** Ease of access and simplified learning contexts.

CHAPTER II

REVIEW OF RELATED LITERATURE

A. Previous Studies

There are many language learning applications that can be accessed via mobile devices, but two of the most downloaded on the Google Play Store are Duolingo. have shown that the use of mobile-based language learning applications can help students master the English language. Based on previous studies related to Mobile-Assisted Language Learning (MALL), Duolingo is considered an example of effective gamification in MALL applications (Bayyurt et al., 2014). The Duolingo application utilizes gamification methods that offer learning through writing and audio, thus very supporting the language learning process for many people. Gamification is an approach that integrates game elements into areas unrelated to gaming with the goal of enhancing user motivation and engagement. In the field of education, gamification is used to create more engaging and interactive learning experiences, featuring point systems, levels, badges, and challenges designed to encourage active student participation (Deterding et al., 2011).

Vocabulary learning is a crucial element in mastering a language, whether in the context of the native language, a second language, or a foreign language. Vocabulary plays a critical role in the process of acquiring and understanding a language (Astuti, 2016; Djunaidi, 2021). The low language proficiency of Indonesian students is evident from numerous surveys and research, both at the national and international levels. One of the primary indicators is the results of the Programme for International

Student Assessment (PISA), organized by the OECD. In the reading literacy test included in PISA, Indonesian students consistently rank low compared to students from other countries. The results of PISA 2018, for example, show that Indonesia's performance in the Programme for International Student Assessment (PISA) 2018 has declined compared to 2015 (Tohir, 2019).

Many people dismiss vocabulary learning, considering it outdated because it is part of the structural approach. The structural approach, which is now more focused on grammar mastery, is no longer as popular. Although the importance of vocabulary has changed over time, it has now become a focus again in the functional approach (Alifvia et al., 2024; Hiebert and Kamil, 2005). There is a need for language education that is sensitive to context, as we recognize the uniqueness of the linguistics, culture, and politics of our communities. In this regard, one of the most attractive elements of this work is its uniqueness, considering the limited amount of research that has been conducted in rural areas, especially those that utilize technology as the main tool. "Language teachers cannot ignore social and cultural realities. They also cannot separate students' linguistic needs from their social needs" (Kumaravadivelu, 2001, p. 544). After that, we evaluated students' vocabulary skills through an initial test that revealed actual needs and provided statistical evidence of their abilities, which could be compared and contrasted with the results obtained after the intervention.

After noting their strengths and challenges, we implemented several vocabulary lessons using two LLA (Duolingo and Kahoot) to help students

in the learning, practice, and assessment of their vocabulary development. In line with this process, we documented every event that occurred during each lesson and evaluation session through a research journal, to reflect on students' learning processes and experiences, as highlighted by Kumaravadivelu (2001).

Various studies have investigated how effective the Duolingo application is in improving vocabulary mastery among EFL students. Rifdinal (2021) revealed that the use of Duolingo significantly improved students' vocabulary scores compared to traditional learning. This research shows that the interactive features and repetitive exercises in Duolingo have a positive impact on students' vocabulary mastery. Furthermore, Alim and colleagues (2025) found that Duolingo not only improves passive vocabulary mastery but also enhances students' motivation when learning. However, this study also highlights that the active use of vocabulary in communicative situations is still not optimal, as students tend to focus more on completing tasks in the app. Other research by Nurhayati and Suryaman (2023) and Rosyidah Aulia and team (2025) found that Duolingo is effective in expanding students' vocabulary at the SMA and SMP levels through app-based exercises. These findings support the argument that digital learning applications can function as effective tools in teaching English vocabulary. Additionally, Apoko and colleagues (2025) found that using Duolingo at the university level can increase positive attitudes and motivation among EFL students. Students feel more interested and engaged in learning vocabulary

thanks to the gamification approach applied in this application. However, most previous studies have focused more on the effectiveness of Duolingo in vocabulary acquisition and learning motivation. Research that specifically discusses the phenomenon of vocabulary addiction, which is the tendency of students to rely more on app-based exercises than on using vocabulary in real communication contexts, is still considered limited. Therefore, this study aims to address this gap by examining the power of gamification in Duolingo and the potential for vocabulary addiction among EFL students.

B. Theoretical Review

The theoretical framework in this research is developed based on several main theories that are relevant to digital-based English language learning, particularly those related to gamification, vocabulary learning, and learning addiction. This framework is used to explain the conceptual relationships between the gamification-based use of the Duolingo application and the phenomenon of vocabulary addiction among EFL students.

Theoretically, the concept of gamification in learning is based on motivation theory, particularly intrinsic and extrinsic motivation. According to this theory, game elements such as points, levels, badges, and challenges can serve as motivators that help enhance students' learning spirit. In the context of learning, increased motivation makes students more active and continuously engaged in the learning process.

Furthermore, the use of the Duolingo application as a language learning

tool can be explained through the Mobile-Assisted Language Learning (MALL) approach and behaviorist theory.

Behaviorist theory states that learning occurs through repetition and reinforcement. Duolingo provides repeated vocabulary exercises with quick feedback, helping students remember the words they have learned better.

From a cognitive theory perspective, students' active engagement in completing online tasks can accelerate the information processing process.

Visuals, sounds, and interactions in the Duolingo app help students gradually understand vocabulary in the context of learning English as a foreign language (EFL).

However, from the perspective of self-directed learning theory, the excessive use of digital learning media can make students dependent. Reliance on vocabulary can occur if students overly depend on applications as their primary learning source. As a result, their ability to use vocabulary independently and communicatively outside of the application may not develop sufficiently. Engaging application design along with continuous feedback can reinforce this dependent behavior.

Based on these theories, it can be concluded that gamification in Duolingo has a good ability to enhance students' motivation, practice frequency, and vocabulary mastery.

However, if not balanced with contextual learning and actual language use, it may risk causing vocabulary dependency.

C. Conceptual Framework

Learning English as a foreign language (EFL) requires students to

master vocabulary, as vocabulary forms the foundation for developing other language skills. With the advancement of technology, ways of learning vocabulary are not just limited to conventional methods but also utilize digital-based applications, such as Duolingo. This application combines game principles in the language learning process.

Gamification in Duolingo is evident through various game elements such as a point system, levels, badges, daily challenges, and immediate feedback.

Theoretically, these elements can enhance students' learning motivation, both intrinsic and extrinsic. Higher motivation encourages students to learn more frequently and engage with the material.

The higher the motivation and the sustainability of learning frequency, the better students will become at mastering vocabulary.

Through repeated practice, direct reinforcement, and visualization provided by Duolingo, students can expand their vocabulary and have better memory retention for English words.

However, continuous use of the app can also lead to dependency on vocabulary.

This dependency arises when students rely too heavily on app-based exercises and instant feedback, resulting in less practice of using vocabulary independently in real-life and communicative situations. In this scenario, the app is no longer just a learning aid but becomes the sole source of vocabulary learning for students.

Based on the above discussion, this study identifies Duolingo's

gamification as a primary factor influencing students' learning motivation and frequency, which in turn affects their vocabulary mastery.

Furthermore, the use of applications also has the potential to cause vocabulary dependency risks if not balanced with contextual learning outside the application

