

CHAPTER I:

INTRODUCTION

1.1 Background of the study

Language acquisition is an essential skill in today's globalized world, and effective vocabulary learning plays a fundamental role in mastering a new language. Vocabulary knowledge is a key component of language proficiency, as it enables learners to comprehend and produce meaningful communication. According to Nation (2001), vocabulary is central to language use and development. However, many learners struggle with traditional vocabulary learning methods, which are often repetitive and unengaging. These methods tend to rely on rote memorization, which may not support long-term retention or meaningful language use.

As a result, alternative learning approaches such as gamification have gained increasing attention in educational contexts. Gamification refers to the use of game-design elements, such as rewards, levels, and challenges, in non-game environments to enhance user engagement. Sebastian Deterding et al. (2011) define gamification as the application of game elements to improve user experience and motivation. Furthermore, research by Hamari et al. (2014) suggests that gamification can positively influence motivation and learning outcomes, particularly when learners are actively engaged in the process.

In recent years, digital learning platforms have increasingly incorporated gamification to support language learning. One of the most widely used platforms is Duolingo, which integrates features such as streaks, leaderboards, points, and rewards to encourage consistent practice. These features aim to transform language learning into a more interactive and enjoyable experience. In addition, Duolingo provides immediate feedback and short, structured lessons, which support repetition and reinforcement—key aspects of vocabulary acquisition. This approach aligns with the theory proposed by Krashen (1985), which emphasizes the importance of engaging and meaningful input in the language acquisition process.

Despite the growing popularity of Duolingo, there is still a need to examine how its gamification features affect vocabulary development among general users. Many previous studies have focused on specific groups, such as students in formal classroom settings, while

fewer studies explore independent learners or randomly selected users who use the application in everyday contexts. This creates a gap in understanding how gamified language learning functions outside structured educational environments.

Therefore, this study aims to investigate the role of gamification in vocabulary development through Duolingo by involving randomly selected participants. By focusing on a more diverse group of users, this research seeks to provide a more realistic and comprehensive understanding of how gamified learning supports vocabulary acquisition in real-world settings.

The findings of this study are expected to provide insights into the effectiveness of Duolingo as a tool for vocabulary learning. Additionally, the results may contribute to the broader discussion on the integration of gamification in language education and its potential to enhance learner engagement and outcomes.

1.2 Research Questions

1. How does gamification in Duolingo influence users' vocabulary acquisition?
2. Which gamification features such as Streak, XP, Leaderboard in Duolingo are perceived as most effective for supporting vocabulary retention?
3. How do users perceive the effectiveness of Duolingo in improving their vocabulary Learning?

1.3 Research Objectives

1. To examine how gamifications elements in Duolingo influence users' vocabulary acquisition.
2. To identify which gamifications features such as Streak, XP, Leaderboard contribute most effectively to vocabulary retention.
3. To explore users' perceptions of the effectiveness of Duolingo in improving their vocabulary Learning.

1.4 Theoretical framework

This study is Focused Mainly in Gamification Theory, which posits that the integration of game-like elements into non-game contexts, such as education, can enhance learner engagement, motivation, and overall performance. Gamification incorporates key mechanics such as points, badges, levels, leaderboards, and immediate feedback, which are designed to stimulate both intrinsic and extrinsic motivation. These elements foster a sense of challenge, achievement, and progression, all of which are essential for sustaining learner involvement. Deterding et al. (2011) emphasize that gamification is not simply about playing games, but about applying game-design principles to engage users and solve problems. In addition, Werbach and Hunter (2012) highlight that gamification can systematically influence user behavior by structuring motivation through reward-based systems.

Gamification Theory is closely connected to Self-Determination Theory (SDT), developed by Deci and Ryan (1985). SDT explains how motivation affects learning behavior by identifying three fundamental psychological needs: autonomy, competence, and relatedness. In a gamified environment such as Duolingo, learners experience autonomy by choosing when and how to engage with the platform, competence through continuous feedback and visible progress, and relatedness through social features such as leaderboards. When these needs are fulfilled, learners are more likely to develop intrinsic motivation, which has been shown to support deeper and more meaningful learning (Ryan & Deci, 2000). Furthermore, Kapp (2012) argues that gamification enhances motivation by aligning learning activities with these psychological drivers.

In addition, this study draws on Second Language Acquisition (SLA) Theory, which provides insights into how learners acquire vocabulary and internalize language structures. Krashen (1982) emphasizes the importance of comprehensible input in language acquisition, suggesting that learners acquire language most effectively when they are exposed to meaningful and understandable input slightly above their current level. Similarly, Nation (2001) highlights the importance of repetition, frequency, and contextualized exposure in vocabulary learning. These principles are further supported by Schmitt (2008), who emphasizes that repeated encounters with vocabulary items are essential for long-term retention. Duolingo reflects these principles by providing scaffolded exercises, contextualized vocabulary use, and repeated practice through its

adaptive system, which reinforces learning through spaced repetition.

To further support this investigation, the study also adopts principles from the Digital Learning Engagement Framework, which examines how learners interact with digital environments. Engagement is commonly categorized into behavioral, emotional, and cognitive dimensions (Fredricks, Blumenfeld, & Paris, 2004). Behavioral engagement refers to participation and frequency of use, emotional engagement involves learners' interest and enjoyment, and cognitive engagement relates to the effort and strategies used in learning. Gamified features in Duolingo, such as progress tracking, instant feedback, and daily goals, contribute to all three dimensions of engagement. Additionally, Veletsianos (2010) suggests that digital environments can enhance learning by promoting interactive and learner-centered experiences.

The integration of Gamification Theory, Self-Determination Theory, SLA Theory, and Digital Learning Engagement provides a comprehensive framework for analyzing how Duolingo supports vocabulary acquisition. These theoretical perspectives guide the development of research instruments, the analysis of findings, and the formulation of pedagogical implications. By applying this multidimensional framework, this study aims to explain not only whether Duolingo is effective, but also how and why its gamified structure contributes to meaningful vocabulary learning outcomes.

1.5 The Significance of the Study

The findings of this study are expected to be beneficial to educators, language learners, and educational technology developers. For educators, understanding the impact of gamification on vocabulary acquisition may provide insights into how digital tools can be effectively integrated into language instruction. Applications such as Duolingo can be utilized as supplementary learning resources to support vocabulary development and to create a more engaging and interactive learning environment.

For language learners, this study offers a better understanding of the advantages and limitations of using gamified platforms for vocabulary learning. By examining users' experiences and perceptions, learners can make more informed decisions about incorporating applications like Duolingo into their independent study practices. This is particularly relevant for self-directed learners who rely on digital tools outside formal educational settings.

In addition, the findings may be valuable for educational application developers by providing insights into which gamification features are most effective in supporting vocabulary retention and learner engagement. These insights can guide the improvement of gamified learning platforms, leading to more effective and user-centered design.

Furthermore, this research contributes to the growing body of knowledge on gamification in language education, particularly in the context of vocabulary acquisition. By focusing on general users rather than a specific classroom group, this study provides a more realistic perspective on how gamified language learning functions in everyday contexts. The findings may also serve as a reference for future research exploring the integration of gamification and digital technologies in language learning.

1.6 Definition of Key-terms

- A. **Gamification:** According to Deterding et al. (2011), it is the use of game elements in non-game settings to increase engagement and motivation.
- B. **Vocabulary Acquisition:** According to Nordquist (2019), it is the process of learning and remembering new words for communication and understanding.
- C. **Duolingo:** According to Ahn & Hacker (2012), it is a language-learning app that uses gamification features to make learning fun and effective.
- D. **Retention:** According to Haiyan (2024), it is the ability to store and recall learned information over time.
- E. **Motivation:** The internal and external drive that influences learners' engagement and persistence in learning activities. Deci and Ryan (1985) distinguish between intrinsic motivation (driven by interest) and extrinsic motivation (driven by rewards).

1.7 Scope and Limitation of the Study

This study focuses on examining how the gamification elements in Duolingo influence vocabulary acquisition among general users. It specifically investigates the role of game-like features—such as points, streaks, rewards, and leaderboards—in enhancing user engagement and supporting vocabulary retention. In addition, the study explores users' perceptions and experiences when using Duolingo as a tool for vocabulary learning in independent, real-world contexts rather than within formal classroom settings.

However, this study has several limitations. First, it is limited to vocabulary acquisition and does not examine other aspects of language learning, such as grammar, pronunciation, listening, or speaking skills. Second, the study relies primarily on self-reported data collected through questionnaires (and/or interviews), which may be subject to personal bias, inaccuracy, or differences in individual interpretation. Third, the participants are randomly selected users with varying backgrounds, learning habits, and levels of proficiency, which may result in variability that is difficult to control. As a result, the findings may not be fully generalizable to all populations, particularly those in structured educational environments or with different levels of access to digital learning tools.

1.8 Organization of the Proposal

This research proposal is structured into three chapters. Chapter I provides the introduction, which includes the background of the study, research questions, research objectives, theoretical framework, significance of the study, scope and limitations, and definitions of key terms. Chapter II presents the review of related literature, which discusses previous theories and studies related to gamification, vocabulary learning, and the use of Duolingo. Chapter III outlines the research methodology, detailing the research design, site and context of the study, participants involved, data and sources, instruments used, data collection procedures, data analysis procedures, and the proposed research schedule. This organization ensures a logical and comprehensive flow of the study from the foundation to the implementation phase.