

User Motivation in Using Mobile Platforms for Language Learning; the Case of Duolingo

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Abstract

Duolingo is a widely used language learning platform that provides free, interactive lessons in more than 30 languages. Through gamification and personalized learning, Duolingo has become immensely popular and is known for its effectiveness in facilitating language acquisition. This research will investigate user motivation and the impact of

personalized learning paths on language acquisition with Duolingo. Additionally, the role of social interaction, gamification and rewards in enhancing language learning will be examined. This study employs the review-library method and the necessary content was obtained through searching in databases and Google scholar. Results suggested that Duolingo's gamified approach to language learning, can be very effective in motivating users to stay engaged and continue practicing.

Keywords: Mobile platforms, Motivation, Duolingo

1. Introduction

Education in the world continues to develop every year, especially in the field of technology. Technology has rendered the significance of distance in communication. It has improved many parts and section of life in human kind. One of which is education. Technology in the learning process is more varied, and it is suggested that it can work to help students, organize, and provide materials, and help student interact with teachers, parents, and anywhere they want. (Bajcsy & Ambara, 2020). That is to say, technology becomes an integral part of the learning experience and a significant issue for teachers, from the beginning of preparing learning experiences through to teaching and learning process (Eady & Lockyer, 2013).

Students learning a new language need as much language support as possible. Language learners need a variety of language experiences. They need to hear the language, write the language, speak the language and read the language. Technology has provided richer resource, greater access to resources, greater interactivity and greater opportunities for students to manipulate and use language. When teacher adds sound of voice to text, especially when students can access it outside the physical presence of the teacher can give a personalized touch to students' learning experience (Savira Hernadijiya, 2020).

1.1 Mobile platforms

Mobile technologies are rapidly attracting new users, providing increasing capacity, and allowing more sophisticated use. mobile learning is defined as a process of gaining knowledge through conversations across multiple contexts among people and personal using interactive technologies with a focus on contexts (Sharples et al., 2007).

Mobile learning is an extension of e-learning that is enabled through portable and wireless mobile devices and provides an anywhere, anytime learning experience according to learners' convenience. There are several advantages of mobile learning; (i) learning can take place anywhere anytime without any barrier to geographical constraints, (ii) students can achieve self-centered learning, i.e., learning at your own pace, (iii) learning materials can be delivered on the need and circumstance of the learners, and (iv) helps in achieving collaborative learning, etc (Kumar & Goundar, 2023).

Learners are strongly and autonomously motivated to learn a second language via mobile devices at home. Nevertheless, the study conducted by Sandberg et al. (2011) selected primary school students as participants, whose findings may not be generalizable in other contexts. With Conjugation Nation (CN), a popular drill-based mobile application, students' learning enjoyment, engagement, and motivation greatly improved. No control group in Choa and Castanedab's study may have led to inaccurate results. However, the available empirical evidence supports the positive effect of mobile learning on language learning motivation. (Yu & Xu, 2023).

1.2 Motivation

The term motivation describes why a person does something. It is the driving force behind human actions (Johnstone,1999), considers motivation as a stimulant for achieving a specific target. Crump (1995) believes that excitement, interest, keenness, and enthusiasm towards learning are the main constituents of motivation. Motivation is a basic and essential part of learning (Brewer & Burgess, 2005). Motivation might be extrinsic and also intrinsic. Extrinsic motivation is the propensity to take part in activities because of the reasons which do not link to the activity. These reasons can be the anticipation of reward or punishment, like being successful in the exam or getting a good mark (Vansteenkiste, Lens, & Deci, 2006). Students who have intrinsic motivation are inclined to stay with intricate and complicated problems and gain knowledge from their slips and mistakes (Walker, Greene, & Mansell, 2006). The difference between these two is that intrinsic motivation is a motivation to do an activity because of itself. In fact, the individuals who are intrinsically motivated do and practice the activities and works because they feel that those activities are enjoyable. Extrinsic motivation, on the other hand, is motivation to do a work or an activity as a means or way to achieve a target. Those who are extrinsically motivated perform and do affairs as they think that their contribution will cause enviable results like a reward, teacher admiration, or evasion (prevention) of punishment (Pintrich & Schunk, 1996).

cook (2000) states that acquisition of language is not the same among learners. He also believes that there are three main factors which influence the Second Language Acquisition. These three factors are: age, personality and motivation. Motivation is the most significant factor among the mentioned three factors that affect second language acquisition. Ellis (1994, p. 715) suggests that motivation is “the effort which learners put into learning an L2 as a result of their need or desire to learn it”. Also, Qiao (2024) identifies motivation in SLA as an intricate incident which can be identified along with two factors: “learners’ communicative needs and their attitudes towards the second language community”. They believe that when learners think that they need to speak the second language with the aim of being in touch with others or accomplishing and achieving specialized desires and goals, they will be motivated to obtain expertise and skill in it. Gardner and Lambert (1972) name the mentioned situation as integrative motivation and instrumental motivation. Research has proved that whether second language learning is successful or not directly and strongly concerns with these types of motivation (Qiao, 2024).

1.3. Duolingo

Duolingo is a free app created by Luis Von Ahn and Severin Hacker in November 2011. Its slogan is “Free language education for the world” (Munday, 2021). This approach has garnered attention within the field of educational technology and language acquisition (Kazu & Kuvettli, 2024). It also has educator’s forum that the users can interchange subject and topics with each other either as teacher or student to learn. It can measure learners’ accomplishment and dedication with enjoyable ways. The apps provide information like point earned, of course overview tree, the streak, and the time spent. The practices are so numerous and easy for novice learner to learn a new language. The apps are very simple to use, and the procedures and steps are easy to understand (Ajisoko, 2020). Users start out by choosing a desired target language and can take a placement quiz if they already have some background knowledge. They set a certain amount of experience points as a daily goal and get bonuses for achieving it. Completing one lesson per day (achievement) adds one day to the Streak, which gets completely reset to zero if no lessons are completed on any given day (reinforcement). The application sometimes offers optional challenges to the user, such as maintaining the streak for several more days, comparing experience points against others in different leagues, or offering a reward on challenge completion (fun orientation and competition) (Shortt, Tilak, Kuznetcova et al, 2023).

The aim of this study is to investigate the methodology employed in Duolingo to keep the users motivated.

2.Theoretical foundations of research

Motivation is a complex part of human psychology and behavior that influences how individuals choose to invest their time, how much energy they exert in any given task, how they think and feel about the task, and how long they persist in the task (Bakar, [1]). Bakar added that motivation reflects in students’ choices of learning tasks, the time and effort they devote to them, their persistence on learning tasks, and in coping with the obstacles they encounter in the learning process (Filgona, Sakiyo, Gwany et al, 2020).

Language learning motivation was defined as learners’ attitudes toward language learning and the factors encouraging them to join language learning activities. The language learning factors include not only learner-related attributes such as learner identity, learner preference, learner intellect, and learner satisfaction, but also social attributes such as social status, economic status, learner attitudes toward the target language and related communities, socio-cultural interactions, gender, and power of the target language. Motivation is an important factor that exerts a great influence on learner performances of second language learning. Learners with stronger motivation tended to spend more effort learning with persistence in a second language than those with less motivation (Yu & Xu, 2023).

Motivation is a willingness to activate, mobilize, channel, and direct the attitudes and behavior of a learner (Dimyati & Mudjiono: 67). Motivation makes a movement of mind and act. (Brown: 68) motivation based on behavioristic and cognitive points of view. In the behavioristic perspective, Brown defines motivation as anticipation of reinforcement which is a powerful concept for the classroom. Based on a cognitive perspective, Brown classified motivation definition into three categories. The first definition hinges on the drive theory, which means that motivation stems from basic innate drives; this definition shows that motivation has been in existence within us since we were born. This shows that motivation is an internal state that activates, guides, and maintains behavior (Green: 69). The second definition is based on a hierarchy of needs, meaning that motivation is something that comes from an individual's needs. Third, based on self-control theory, motivation is something that appears if there is an opportunity to make someone make their own choices about what to pursue and what not to pursue (self-control). Summarily, these definitions show that motivation is one of the influential stimulating factors in teaching-learning situations that drive learners to struggle to reach their goals (Maulya, 2023).

3. Research background

There are studies related to this topic available.

In the research of Muller (2024) was discussed that There are many psychological, social, and motivational techniques used in the Duolingo language learning app that have made it extremely popular for millions of language learners around the world. Many of these ideas can be applied to language learning in the university classroom to improve our student's enjoyment and success. Creating a sense of purpose, challenging students, giving clear feedback are some of the ways to enhance students' language learning outcomes. It would be good to try some of the ideas in the classroom to see how effective these ideas could be for learners in the classroom.

In the research that Zing & Fisher (2023) it was said that Duolingo first satisfies users' need for autonomy and competence at the activity level and thus supports their Duolingo IM. Subsequently, the need satisfaction at the activity level can be transferred correspondingly to the global level, which supports learners' perceived L2 autonomy and competence, leading to their increased IM for language learning more generally. During this process, they also discovered that the transfer of perceived autonomy is driven by the freedom to choose the learning content and learning method in Duolingo, and that the transfer of perceived competence takes place either directly from the activity to the global level or by applying knowledge.

Maulya (2023), The researcher concludes that the learning process using the Duolingo application was successful in increasing and developing students' motivation to learn English. Therefore, the scores of students in learning English by using the Duolingo application can be seen as media in increasing the students' motivation. However, not all students come with strong motivation and set goals.

4. Findings

Gamification On Duolingo

Gamification, as defined by Kapp (2012), is a practice that uses game-based methods and game thinking to engage people, motivate action, promote learning, and solve problems. Duolingo has some features that resemble a game, which will engage learners in learning the language (Amin, 2021).

The core of language learning in Duolingo is its lessons. They are divided into small sets which are called skills and are laid out in a top-down formation referred to as the skill tree. Different skills include, for example: clothing, questions, present 1–3 (verb forms), basics 1–2, possession, phrases, and conjunctions. Each of these skills contains anywhere from one up to ten short lessons, which commonly have 20 exercises, including:

- translating words and sentences from both languages
- repeating sentences from audio cues by speaking into the microphone of the device
- transcribing or translating spoken language from audio cues
- multiple-choice quiz questions with sentences, words, missing words in a sentence or word-picture cards
- matching word-translation pairs (Gomez, Lopez, Martinez, 2021).

Duolingo Stories are short humorous stories that help learners practice their language comprehension skills. Currently, they are available in French, Spanish, Portuguese and German. Users can listen to the narration of the story and they are also provided with the textual form of the story. Stories are meant to be entertaining and they are also somewhat interactive. Although users cannot alter the plot or the end of the story, the narration of the story pauses at critical points and waits for the user's input. The platform generates closed-ended questions that test readers' understanding of words and content of the story. Comprehension questions during the narration check in present time whether the users are following and understanding the narration, allowing them time to reread the parts they did not understand and then proceed with the story. Computer-Assisted Language Learning (CALL) applications are argued to be more beneficial to learners' vocabulary acquisition than learning L2 vocabulary with teachers' assistance, as the first promote self-paced and autonomous learning. Frequent pauses in narration can climax reader's interest in the story, as well (Savvani, 2019).

Duolingo relies on the positive aspects of social media such as comparing your progress of learning against your own friend's progression which creates competitive motivation. Also league tables show your progress against other learners and notifications remind you that you should study more to stay in the top 10 or top 20 of learners. This can be a strong motivation to continue your language study. Comparing scores against

each other can encourage some learners to study more. However, for some students this can be demotivating (Muller, 2024).

The two major elements that identify it as such are the usage of experience points (XP) as a marker of progress, with 10 XP being awarded for a typical unit, and bonus points awarded for correct answer streaks. Another element borrowed from gaming is the concept of unlocking. To proceed to a new lesson, the user must first complete previous lessons, much as a player in a video game must first complete certain tasks before being allowed to proceed to the next level (Isaacson, 2021).

lingots are awards, given when you complete a skill; the inclusion of a weekly leaderboard, where you can “compete” against friends to see who has the highest XP; a symbol of a flame next to your name with the numbers of days of your streak on the site; the aforementioned strength bar, which appears when a user is completing a lesson, to indicate how close they are to finishing it, etc (Amin, 2021).

Duolingo offers a number of learning affordances through social interaction. It enables users to search for the profiles of their peers, viewing their progress in different languages. Users are able to view these profiles, following and comparing their own XP amount and streak count to those of others. They can even set a notification on their smartphone or email that informs them when another user exceeds their current amount of experience points. From the point of view of gamification, these types of ‘micro leaderboards’ can be a motivator for learners who enjoy competitive activities: such users may want to achieve the highest score and see their name at the top of a ranking list, and they may give more effort trying to stay ahead or catch up with their peers. The user-maintained streak leaderboards. Viewing profiles offers affordances also for users who wish to set language learning goals together with their peers. A close relationship between peers might enable them to communicate and recognize the needs of each learner, enabling supportive scaffolding (Mehtala, 2015).

Conclusion

This study shows that Duolingo has been a transformative force in the realm of language learning, primarily due to its innovative approach to motivation. The platform’s gamified structure, which includes a system of rewards, progress tracking, and engaging challenges, has successfully captivated and motivated millions of users worldwide. By incorporating elements of fun and interactivity into language learning, Duolingo has effectively addressed the issue of motivation, a common barrier for many language learners.

Looking ahead, Duolingo’s continued focus on motivation will likely lead to further innovations in language learning technology. As the platform evolves, it has the potential to inspire even greater numbers of individuals to peruse their language learning goals with enthusiasm and determination. Ultimately, Duolingo’s approach to motivation has not

only transformed the way people learn languages, but has also opened up new possibilities for global linguistic and cultural exchange.

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