Mobile-assisted language learning: Duolingo and its' relevance for English young learners

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Abstract: The increasing pervasiveness of technology has influenced how people study. Instance the integration of the mobile-assisted language learning (MALL) in the teaching learning process. Technology and its application to the teaching and learning process is not a new phenomenon. Teachers need to be innovative and creative in order to hold the students' attention and retention to their lesson. Seeing the good point of implementing mobile-assisted language learning (MALL) in the classroom makes teachers prepare plans for their teaching process, such as using an application. Mobile-assisted language learning (MALL) with his applications made the teaching learning process wider. There are many applications that support the English teaching and learning process, one of which is Duolingo. Duolingo is a program that was created to help people learn different languages. There are numbers benefits of implementing the Duolingo application as a media in English teaching learning process. This article discusses about how relevance the implementation of Duolingo in English teaching learning process, especially for English young learners.
Keywords: MALL, Duolingo, EYL, Teaching Learning Process

1. Introduction

The industrial revolution 4.0 indirectly altered the paradigm of education in the 21st century (Sari et al., 2020). The Indonesian government has always paid special attention to the education sector, this is evidenced by changes in regulations in the education sector to make education in Indonesia better. To improve the quality of Indonesian education, the Minister of Education and Culture implemented the "Merdeka Belajar" program as a future learning direction. The era of independent learning "Merdeka Belajar" can be interpreted as a time when teachers and students have independence or freedom of thought, free from the shackles of educational burdens so that they are able to develop their own potential to achieve educational goals (Izza et al., 2020). The essence of freedom of thought according to Nadiem must be passed by teachers before they carry out the learning process.

The teacher as the main component in education has the flexibility and freedom in understanding the curriculum before it is taught by students. By understanding the curriculum that has been set, the teacher can answer the needs of students during the learning process (Bahar & Sundi, 2020).

Through independent learning, teachers are expected to be able to develop their potential such as planning interesting, fun and meaningful learning. Such as the implementation of technology in teaching learning process. Technology is altering the way we teach and learn languages; it has offered teachers with new tools and techniques to teaching that can pique students' attention while also testing their intellect (Blake, 2013, 2016). The growing ubiquity of technologies has affected the way people study (Kukulska-Hulme et al., 2017). Accordingly, technologies have been used extensively in the teaching learning, because learners can study whenever and wherever they want, and their learning materials are accessible across devices and wider. Indeed, the success of commercial online language learning programs demonstrates the widespread interest in using technology to study languages. For example, the free language learning program (app) Duolingo, based on the statistic, there are 49 million active users in a monthly and 13 million active users in a day. Duolingo is a website and online application that was intended to help people learn other languages. Duolingo keeps track of the learner's progress over time and serves as a reminder to continue the learning process. The learner can also specify the duration of daily study, such as fifteen minutes or twenty-five minutes per day. Hence, it is important to evaluate the relevance of this technology for young learners. Plonsky and Ziegler (2016) asserted that research needs to be concerned with how the affordances of technology might best be exploited to provide

learners with optimal language learning opportunities. So, it's necessary to investigate the relevance of the application Duolingo for young learners in their teaching learning of English.

2. Method

The research conducted the highlights of how relevance the application Duolingo for English young learners in their teaching learning of English. This literature review consists several steps, Cronin et al (2008); Choosing a review topic, searching and selecting appropriate artciles, analyzing and synthesizing the literature.

3. Mobile-Assisted Language Learning

MALL is part of Computer Assisted Language Learning (CALL) for mobile learning (mlearning) and language learning. Valarmathi (2011) stated that Mobile Assisted Language Learning (MALL) describes an approach that assists and enhances language learning through the use of mobile devices. MALL provides more opportunities to access applications spontaneously and continuously through various usage contexts (Kukulska-Hulme & Shield, 2007). MALL started with a study by Twarog and Pereszlenyi in the 1980s studying languages and supporting language learning over the telephone. They use the telephone to provide support and feedback to distance language learners (Hashim et al, 2017).

According to Boy and Motteram (2013), mobile devices are a flexible kind of learning that is changing the interaction between learner and learning. According to Boy and Motteram (2013), teachers have been using tablets and mobile devices in the classroom to drill vocabulary, inspire students, and teach curriculum content. Boy and Motteram (2013) also add that some teachers need to enhance their device management skills. It is related not only to usage performance, but also to the fact that certain students are easily distracted by games and other entertainment functions on their mobile devices. To mitigate these negative impacts, Boy and Motteram (2013) propose that some teachers use the content of these games on the mobile devices of their pupils to facilitate language learning and practice. According to Boy and Motteram (2013), it is critical to assess if teachers are receiving effective training to deal with the potential that these gadgets may bring to the classroom. As it stands, the presence of a teacher remains critical for teaching and learning with technology, as will be described later in this paper.

With the introduction of handheld mobile technologies, there is a growing acknowledgment of such gadgets as effective instruments for learning at any time or in any place. Over the last 15 years, the use of mobile technology has increased substantially, with mobile internet devices outnumbering traditional desktop and laptop computers (Pegrum, 2014). This rise has sparked interest in mobile learning (m-learning), which is the use of mobile technology (e.g., smartphones, tablets) for educational purposes such as teaching and learning (Duman et al 2015; Godwin-Jones, 2011; Golonka et al 2014). Mobile-assisted language learning (MALL), in which learners use mobile technology to engage in language study, is one area of increasing growth (Burston, 2015; Duman et al., 2015; Liu et al 2017).

Definitions of MALL vary somewhat; however, key components consistently include (a) flexibility in time and location of study; (b) continuity of study on different devices, such as mobile phones, tablets, and laptop/desktopcomputers; (c) easy accessibility of information; and (d) adaptability to personal study habits (Duman et al, 2015; Kukulska-Hulme et al, 2017; Pegrum, 2014; Petersen & Sachs, 2016; Reinders & Pegrum, 2016). As a result, students can study whenever and wherever they want, and their study materials are accessible across devices.

Reinders and Pegrum (2016) define mobile materials, which relate to web services and apps with built-in language learning resources and exercises, in addition to portable devices. Despite perceived limitations, such as a reliance on a behaviorist, teacher-centered approach to language instruction (Reinders & Pegrum, 2016), such apps have proven to be quite popular for autonomous language learning, with learners frequently accessing MALL material outside of or in addition to classroom study (Burston 2014; Levy & Stockwell, 2013). On the one hand, research on the application, Duolingo (Vesselinov & Grego, 2012) has found that this program is effective as or more effective than face-to-face foreign language courses.

4. Duolingo

Duolingo is a free language-learning platform, which can be accessed through the web (duolingo.com) or as an application on mobile devices. It is a very popular program for language learning, with around 300 million learners and still counting. Duolingo has some features that resemble a game, which will engage learners in learning the language. First, it has a skill tree that consists of some lessons that users can go advance through and unlock the next skill. Each lesson contains 10 to 15 exercises with various types of exercise. Another feature of Duolingo is the leader board, which is activated if the user adds a friend to his list. Duolingo has a store, which the currency is called Lingot, which users can use to purchase additional skills, bonuses such as freeze or customize the appearances of Duo, the owl mascot. Duolingo also has a feature on the web called Duolingo for

International Journal of Latest Research in Humanities and Social Science (IJLRHSS)
Volume 06 - Issue 04, 2023
www.ijlrhss.com || PP. 97-104

School where the teacher can create virtual classrooms to see the Duolingo's curriculum content, to monitor students' progress and to set assignments for in class activity or homework (Stringer, 2019). In this study, Duolingo is seen as an application with a gamification feature for learning a language.

Figure 1 Duolingo logo, www.duolingo.com
Downloaded on Wednesday, 28 December 2022

To use the application Duolingo, learners must download it from Google Play or AppStore and install it on their Android/IOS devices. Many languages can be choose in Duolingo application. Appearance of Duolingo is suitable for young learners, the layout of the application is easy to use.

Figure 2 Screenshot of Duolingo, First appearance after download

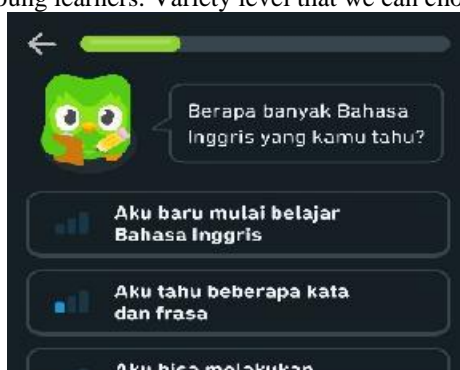Duolingo is suitable for English young learners. Variety level that we can choose for learning English.

Figure 3 Screenshot of Duolingo, Variety level for learners.

Figure 4 Screenshot of Duolingo, Achievements that can be achieved for English young learners

After we chose our level, we can start the test, and again the test is suitable for English young learners, because the appearance is so simple

Figure 5 Screenshot of Duolingo, the test look like.

Even, there is a hint or clue for English young learners that truly just start to learn English language.

Figure 6 Screenshot of Duolingo, hint or clue in the test
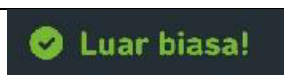When the English young learners answer the question correctly, there is a pop up as reward.

Figure 7 Screenshot of Duolingo, pop up when the learners answer the question correctly

It is safe to say that Duolingo is a very straightforward app and very simple to use. Without any more questions or even registration for the course, the learner can go right into their first lesson by tapping Start. The exercises are of many types: translation exercises, matching exercises, pairing exercises, listening exercises, and speaking exercises.

5. Relevance of using Duolingo for young learners
Regarding the relevance of Duolingo for young learners there are many studies that have developed the effectiveness of Duolingo as an application in teaching and learning for young learners.

5.1 Interesting App
Based on Saraswati et al (2021) found that Duolingo is relevance for young learners. The data from the interviews revealed that the participant frequently used the Duolingo language learning app because it has a lot of fun features like mini-stories, interactive flashcards with moving pictures, and other interesting features. Accessing Duolingo was enjoyable for the participant because he could see various interactive pictures, listen to funny stories that he could share with his parents, and find various exercises. The interviews also revealed some of the factors that motivated the participants to use Duolingo. The participant also liked how the app gave him stars whenever he got the right answers in the Duolingo exercises, which helped and motivated him to advance to the next level of the exercises.

Ajisoko (2020) and Jaelani & Sutari (2021) believe that what makes Duolingo effective is that the content is entertaining and easy to grasp, particularly the vocabulary. Ajisoko stated that pupils receive a fair chance to practice the content, which reduces boredom and encourages them to learn something new. Jaelani and Sutari both stated that utilizing Duolingo is beneficial since it can be utilized anywhere and at any time, allowing students to be more active in their vocabulary acquisition while also increasing passion and drive.

5.2 Accessibility
According to Ritonga et al (2022), online learning tools such as Duolingo allow users to easily access and debate topic matter without being constrained by place or time. This study has ramifications for the Duolingo platform, which is extremely important for basic language learners since Duolingo uses graphics and visuals to teach things ranging from the alphabet to new vocabulary.

5.3 Motivate learners
Pourreau and Wright (2013) conducted research into the ability of mobile apps to aid in the acquisition of a second language. Several apps were used as supplements to traditional learning in the study, based on English level and learner age. Duolingo was chosen for students in grades 2 through 8. According to Pourreau and Wright (2013), Duolingo would be acceptable for learning a second language up to the middle school level based on its capabilities. In general, employing software apps has been shown to engage and drive learners to improve in language acquisition.

According to Ajisoko (2020) Learners were more motivated to learn; more skilled as their interest in learning grew; easier to understand the material; giving all learners a fair chance to practice the material; eliminatingboredom in learning; encouraging new ideas; and assisting students in remembering and practicing the material in daily life.

5.4 Effective application
Based on Irawan et al (2020) and Aulia et al (2020) that the use of Duolingo application has significant effect on students' vocabulary mastery. The use of learning media based on mobile applications (Duolingo) can improve the effectiveness and variety of teaching and learning activities by providing alternative learning media for a teaching-based mobile application that can be used to improve students' ability to speak English and their vocabulary mastery.

5.5 Vocabulary Mastery
For young learners who have not reached the target vocabulary, it is certainly very effective, because Duolingo provides a variety of levels. According to Saldana et al (2019) Duolingo is an ideal application to use in learning and teaching vocabulary. According to Nushi and Eqbali (2017), Duolingo is a beneficial language

International Journal of Latest Research in Humanities and Social Science (IJLRHSS)
Volume 06 - Issue 04, 2023
www.ijlrhss.com || PP. 97-104

program since it provides realistic and methodical procedures that learners may take to learn a new language on their own. Nushi and Eqbali both stated that students of different ages and cultures may utilize Duolingo.

6. Problems and Solutions in using Duolingo

It is undeniable, the use of a technology always has two sides of a coin. Also, in using Duolingo. Gips et al (2004) indicated that the first problem of technologies and its assisted language learning programs is that they will increase educational costs and harm the equity of education. When technology such as Smartphone become a new basic requirement for student to purchase, low budget schools and low-income students usually cannot afford the technology. It will cause unfair educational conditions for those poor schools and students. To overcome it, study in groups is necessary. This pattern still requires a smartphone and internet. However, the difference is, students who ca not afford the smartphone can join the others.

Second, before using technology to aid second language teaching and learning, both instructors and learners must have a fundamental understanding of technology. No student can use technology such as a smartphone or an application if he or she has not been trained in their use. Unfortunately, most teachers today lack the necessary technological experience to guide their pupils through the exploration of technology and their aided language learning programs. Therefore, the benefits of technology for those students who are not familiar with it are inexistent (Roblyer, 2007).

Third, based on Jaelani and Sutari (2021) found that the use of Duolingo was difficult to use when there was no internet connection. This statement was supported by Muddin (2018) argued that Duolingo is an online media learning, so it is hard to implement in classroom if there is no internet connection. To overcome it, as a teacher, it is his duty to see whether the class being taught is appropriate for the use of a "conditional" application. If there is no definite solution, it would be better to replace the application into an application that is more optimal and suitable for the situation and field conditions of the class that being taught.

Another significant disadvantage of Duolingo is that learners are sometimes exposed to a new word just by seeing the letters and the form of the word, rather than hearing it uttered. Many languages (including English and French) do not have the same letters and pronunciation for all words, which can be confusing. When presenting new vocabulary in standard learning, the teacher must always connect the form of the word with its sound. As a result, as teachers, we must exert control over the students' teaching and learning processes in order to avoid mistakes.

And Duolingo still needs improvement to cover more vocabulary, grammar rules, and languages, primarily English since it is the lingua franca of the world.

7. Conclusion

In Indonesia, where the concept of "Merdeka Belajar" has been promoted. Integration of ICT in the classroom will be more advanced. As we know the growing ubiquity of technologies has affected the way people study. There's no doubt that the advancement of technology and its usage can enhance the acquisition of the English Language. ICT is very prominent as it provides lots of medium for the teachers and the students to explore and enhance the teaching and learning process. So, implementing technologies in teaching learning process become commonplace. And Duolingo is one of the applications that can be selected for the teaching and learning process, especially English teaching learning for English young learners. It is certain that the effectiveness of Duolingo as an application in the teaching and learning process for young learners is good enough. There is a lot of researchon the usefulness of Duolingo for young learners. This application is free and accessible to all language learners. In addition, it comprises game-like activities that ensure that language learners will acquire the language in a fun way. Duolingo also provides photos and sounds which help in attracting learners' attention. Its features just like the pointing system, levels, leaderboard, and Duolingo push encourage the learners to continuously learn the language. They feel motivated when they will get badges as a return. They also realize the importance and authenticity of the language as Duolingo provides interactive stories where students can practice real scenario conversations. Thereunto it is undeniable, the use of a technology always has two sides of a coin. As a result, as teachers, we must exert control over the students teaching and learning processes in order to avoid mistakes.

References

[1].   Ajisoko, P. (2020). The use of Duolingo apps to improve English vocabulary learning. International Journal of Emerging Technologies in Learning (iJET), 15(7), 149-155.
[2].   Aulia, H. R., Wahjuningsih, E., & Andayani, R. (2020). THE EFFECT OF DUOLINGO APPLICATION ON STUDENTS'ENGLISH VOCABULARY MASTERY. Eltr journal, 4(2), 131-139.
[3].   Bahar, H., & Sundi, V. H. (2020). Merdeka Belajar untuk Kembalikan Pendidikan pada Khittahnya. PROSIDING SAMASTA.

[4]. Blake, R. (2016). Technology and the four skills. Language Learning &Technology, 20(2), 129-142.
[5]. Blake, R. J. (2013). Brave new digital classroom: Technology and foreign language learning. Georgetown University Press.
[6]. Boy, I., & Motteram, G. (2013). Does mobile learning need to move. In Proceedings of the Global Perspective on ComputerAssisted Language Learning Conference (pp. 32-35).
[7]. Burston, J. (2014). The reality of MALL: Still on the fringes. Calico Journal, 31(1), 103-125.
[8]. Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. ReCALL, 27(1), 4-20.
[9]. Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. British journal of nursing, 17(1), 38-43.
[10]. Duman, G., Orhon, G., & Gedik, N. (2015). Research trends in mobile assisted language learning from 2000 to 2012. ReCALL, 27(2), 197-216.
[11]. Duolingo logo, www.duolingo.com. Downloaded on Wednesday, 28 December 2022
[12]. Gips, A., DiMattia, P. A., & Gips, J. (2004, July). The effect of assistive technology on educational costs: Two case studies. In International Conference on Computers for Handicapped Persons (pp. 206-213). Springer, Berlin, Heidelberg.
[13]. Godwin-Jones, R. (2011). Mobile apps for language learning. Language learning & technology, 15(2), 2-11.
[14]. Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. Computer assisted language learning, 27(1), 70-105.
[15]. Hashim, H., Yunus, M. M., Embi, M. A., & Ozir, N. A. M. (2017). Mobile-assisted language learning (MALL) for ESL learners: A review of affordances and constraints. Sains Humanika, 9(1-5).
[16]. Irawan, A., Wilson, A., & Sutrisno, S. (2020). The implementation of duolingo mobile application in English vocabulary learning. Scope: Journal of English Language Teaching, 5(1), 08-14.
[17]. Izza, A. Z., Falah, M., & Susilawati, S. (2020). Studi literatur: Problematika evaluasi pembelajaran dalam mencapai tujuan pendidikan di era merdeka belajar. Prosiding Konferensi Ilmiah Pendidikan, 1, 10-15.
[18]. Jaelani, A., & Sutari, D. R. (2021, January). STUDENTS'PERCEPTION OF USING DUOLINGO APPLICATION AS A MEDIA IN LEARNING VOCABULARY. In Bogor English Student and Teacher (BEST) conference (Vol. 2, pp. 40-47).
[19]. Kukulska-Hulme, A., & Shield, L. (2007). An overview of mobile assisted language learning: Can mobile devices support collaborative practice in speaking and listening. ReCALL, 20(3), 1-20.
[20]. Kukulska-Hulme, A., Lee, H., & Norris, L. (2017). Mobile learning revolution: Implications for language pedagogy. The handbook of technology and second language teaching and learning, 217-233.
[21]. Levy, M., & Stockwell, G. (2013). CALL dimensions: Options and issues in computer-assisted language learning. Routledge.
[22]. Liu, T., Shadiev, R., & Hwang, W. Y. (2017). Review of research on MALL in familiar authentic environments. Computer Assisted Language Learning, 30(3-4), 284-303.
[23]. Muddin, A. (2018). The use of Duolingo to improve students' vocabulary. Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia.
[24]. Nushi, M., & Eqbali, M. H. (2017). Duolingo: A Mobile Application to Assist Second Language Learning. Teaching English with Technology, 17(1), 89-98.
[25]. Pegrum, M. (2014). Mobile learning: Languages, literacies and cultures. Springer.
[26]. Petersen, K., & Sachs, R. (2015). The language classroom in the age of networked learning. Technology and L2 learning: A psycholinguistic approach. Berlin, Germany: De Gruyter Mouton.
[27]. Plonsky, L., & Ziegler, N. (2016). The CALL-SLA interface: Insights from a second-order synthesis. Language Learning & Technology, 20(2), 17-37.
[28]. Poureau, L., & Wright, J. (2013). Owning It: An Evaluation of Language Applications and Software for Second Language Acquisition Mastery. Online Submission.
[29]. Reinders, H., & Pegrum, M. (2016). Supporting language learning on the move: An evaluative framework for mobile language learning resources. In SLA research and materials development for language learning (pp. 235-247). Routledge.
[30]. Ritonga, M., Febriani, S. R., Kustati, M., Khaef, E., Ritonga, A. W., & Yasmar, R. (2022). Duolingo: AnArabic Speaking Skills' Learning Platform for Andragogy Education. Education Research International, 2022.
[31]. Roblyer, M., & Doering, A. H. (2007). Integrating educational technology into teaching. USA: Pearson, 2007.

[32]. Saldana, J., Ozer, O., Kiliç, F., Alsaif Sarah Ali, M., & Deris, F. D. (2019). Vocabulary learning through duolingo mobile application: Teacher acceptance, preferred application features and problems. International Journal of Recent Technology and Engineering, 14(2), 1-31.
[33]. Saraswati, N. A., & Purwati, O. (2021). AUTONOMOUS MOBILE-ASSISTED LANGUAGE LEARNING FOR YOUNG LEARNERS USING DUOLINGO. Celtic: A Journal of Culture, English Language Teaching, Literature and Linguistics, 8(2), 235-246.
[34]. Sari, N., Ompusunggu, V. D. K., & Daliani, M. (2020). Analisis Penggunaan Media Google Classroom terhadap Proses Belajar Mengajar pada Mahasiswa PGSD Universitas Quality Selama Masa Bencana Pandemi Covid-19. Journal of Education and Teaching (JET), 1(1), 1-8.
[35]. Stringer, L. (2019). Getting started with Duolingo for Schools.
[36]. Vesselinov, R., & Grego, J. (2012). Duolingo effectiveness study. City University of New York, USA, 28(1- 25).

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