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Influences of Duolingo English Test: A Qualitative Study on the Tertiary-Level Students of Bangladesh

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Abstract

Various online learning platforms have become prominent in recent times. These technological tools can facilitate students' language learning process. There are different kinds of online applications that teachers and students can use for their teaching-learning purposes. Among those online platforms, Duolingo is one of the significant applications. Academic research on the use of Duolingo tests in terms of English language learning is missing in the context of Bangladesh. Moreover, most of the Bangladeshi students do not know the functions of Duolingo application properly. For these reasons, the study is important for recognizing the significance of Duolingo tests in learning English language. The main objective of this study is to explore the contribution of Duolingo tests in English language learning. This study examines why and how the students utilize Duolingo tests to increase their proficiency in English language. Students can assess their own progress by using Duolingo tests. In doing this research, the researcher followed a qualitative research method for this study. The researcher took semi-structured interview of the participants all drawn from a private university of Bangladesh. From this research, the researcher found that Duolingo English tests are important to develop learners' vocabulary, grammar and other English language skills and the teachers need to have enough training to implement Duolingo English tests in Bangladeshi English language classrooms.

Keywords

Online, Platforms, Duolingo Tests, Proficiency, Qualitative Method, Vocabulary, English Language Skills

1. Introduction

Online learning instructions have become a significant part in second language

learning. The use of communicative platforms is helpful for making the learning process more effective among ESL (English as Second Language) learners (Mahfouz & Ihmeideh, 2009). There are many useful online platforms which help the students to grasp English language skills. These online platforms are, Duolingo, Kahoot!, Coursera etc. Yaccob & Yunus (2019) stated that traditional teaching techniques are becoming outdated in recent times. These online platforms can involve the students in different classroom activities. Teachers use it in a creative way so that their students may not lose their curiosity in lesson content. These online platforms help teachers to assess students' performances in a quicker way. Some teachers prefer online platforms rather than pen and paper to assess students' speaking and writing performances. Nurhadianti & Pratolo (2020) mentioned that teachers can design different game-based assessments with technological applications which facilitate students' involvement in classroom activities.

Recently, COVID-19 pandemic sweeping across the world made online learning and teaching even more popular. For example, American instructors use Duolingo which is an American language-learning web application and mobile app to take the English proficiency test for students. Duolingo application has an important role for teachers and students. It is the main tool for learning activities because, in this COVID-19 pandemic, teaching and learning activities cannot be carried out directly. Moreover, teachers can use this app to bring fun and enjoyment to their lectures. Learners can learn the English language without facing any obstacles by using Duolingo application. Students can improve their English whenever they want by using Duolingo application during pandemic situation (Fadilah, 2022). This web application helps students to increase their self-confidence (Ajisoko, 2020). The teachers can arrange creative materials for their students by using online learning platforms to make the lesson contents interesting for the students. Therefore, some teachers may not have proper training on the use of online learning platforms. They need to know how to use online platforms successfully inside the classroom to make their lectures convenient for the students which will help them to become more efficient English language learners in future.

Technological platforms offer an innovative and smart means of language teaching and learning. These platforms help the students to understand different aspects of English language. Effective online applications have not only caught the attention of language educators but also created student oriented learning environment in English language learning classrooms (Jabeen & Thomas, 2015). For online platforms students can get instant feedback from their teachers. Therefore, to create an interactive atmosphere inside the classroom both the teachers and students need to understand the importance of online learning platforms.

We can see many fascinating technological apps/web portals which help the students to learn different components of English language. Among those apps, Duolingo is a game-based learning platform which brings students' engagement inside the classroom. Duolingo application is used by teachers and students in many western countries but it is mostly used in America, France and Spain

(Ajisoko, 2020). In a non-western country like Bangladesh Duolingo is a new kind of application. Proficiency in English is essential to achieve success in education, business and technological fields. Bangladeshi people learn English as their second or foreign language (Ara, 2020). Students in different universities of Bangladesh face problems in English pronunciations. They often do not have adequate vocabulary or grammatical competence which is essential when it comes to learning English. Bangladeshi teachers can take proficiency tests without pen and paper by using Duolingo application. Many Bangladeshi students do not know the use of Duolingo application properly. Moreover, academic research on the influence of Duolingo English tests is missing in the circumstances of Bangladesh. For this reason, this study is important for understanding the implications of Duolingo tests in encouraging students to learn English in a proper way. Most of the Bangladeshi tertiary level students do not know about Duolingo tests and its benefits. This study will explore the reasons behind giving Duolingo tests for enhancing students' English language learning, the experiences students gathered while giving Duolingo tests, the problems that students faced while facing Duolingo examinations and some recommendations on how Duolingo tests can be applied in Bangladeshi English language classes.

2. Literature Review

The primary focus of the research is to explore the impact of Duolingo Tests in language learning. This chapter presents the existing literature on the features and functions of Duolingo application. The chapter also explains the information gap in the existing literature. The following sections will briefly present gamification as a learning tool and the contribution of Duolingo tests in English language learning.

2.1. Gamification as a Learning Tool

Gamification refers to adopting game-based technological tools in nongame environment for example websites, apps or learning management systems to increase participation. The primary goal of gamification is to engage the learners within the classroom environment. Bicen & Kocakoyun (2018) stated that game-based applications can create competitive environment in language classrooms. Game mechanics are rule governed which can create competitiveness in learner's mind (Bicen & Kocakoyun, 2018). Game-based learning is important because this technique increases the interest of learning process, productivity and ability to acquire new skills. Gamification techniques can be used in non-entertainment settings such as education or workplace. Recently, game-based applications have become popular in educational field (Graham, 2015). Moreover, gamification has a positive impact in education. It makes learning more engaging and appealing to the learners. Many universities and English language learning institutions have borrowed their main tools from games to motivate their students. Immediate feedback for completing the challenges successfully helps the stu-

dents to increase their confidence level. By using these game-based techniques the learners can pay their full attention to the lectures provided by the teachers. There are different features of gamification.

Alsawaier (2017) discussed some of the distinct features of gamification technique in his article. According to Whitton & Moseley (2010), quests can develop students' critical thinking skills. These challenges can create a competitive environment inside the classroom. These quests can give opportunities for the learners to work together with their teachers and other partners. However, points and levels have significant effects in game-based language learning classroom. Points are considered as giving rewards to the students for their good performances. Zickermann & Cunningham (2011) stated that, in modern games the winners are given rewards and the games introduce different levels for example, easy level to start with to motivate learners. For the weak students these features (points and levels) may increase their motivation to participate in the classroom activities. Duolingo also has some game-like features. The next part will briefly explain about the features of Duolingo application as a part of gamification technique.

2.2. Duolingo: An Online Language Learning Platform

There are many online learning tools which facilitate the language learning process. Duolingo is a new application by which the students can learn new things in an easy way. Luis Von Ahn and Severin Hacker invented Duolingo application in November 2011 for free language education. Duolingo application has more than 30 million listed users (Munday, 2016). It is a technological tool which can increase students' motivation and curiosity in lesson contents and tasks. By using Duolingo teachers can create their own teaching techniques Duolingo may be a new application for many students from different universities. Some students may not know how to use this app in a proper way. When the teachers employ this app in the language classrooms the students need to interact with other students who know how to use this app. Students can ask their teachers about the functions of Duolingo In this way, a mutual communication builds up between the teachers and the students. Therefore, online learning applications for instance, Kahoot!, Duolingo can make the learning process challenging, fun and interactive (Yuruk, 2019). Learners can use their personal devices for example, smartphones, laptops or computers to operate Duolingo application. This online application can be used in education sector to make teaching-learning process easier than other processes.

In many language institutions teachers use Duolingo application to make their teaching process reliable to the learners. Duolingo opened a new area in January 2015 in which teachers can post open-ended questions and students can answer those questions (Munday, 2016). Teachers can take different kinds of language tests by using this online application to check students' proficiency in English language. According to Ahmad (2021), the gamifiation elements used in Duolingo are what makes it simplistic, understandable reach a broader audience as

intended by the inventers. Beginning from the homepage, it lands on how the player's progress and strength on each skill have been achieved. There is a definite goal of using this online application. The game aims to teach us a language through levels, lessons and goals. For a language teacher to use this application in their primary education, Duolingo will be perceived for it to be used in the classroom is entirely different from how the teacher learns the skills (Ahmad, 2021). In the next section, the use of Duolingo application as an assessment tool will be discussed.

2.3. Duolingo English Test

Assessment tools are the techniques used by the teachers to measure students' academic progress. In English language teaching, organization, implementation, and evaluation, these three terms are essential for teachers as well as students. To assess students' performances properly the teachers need to adopt different types of techniques. Among those techniques one technique is employing Duolingo in the classroom. Proficiency in English language is essential to achieve success in educational field. Many foreign universities adopt Duolingo English tests to check the proficiency level of students. Learners do not have to go to the examination center for DET. Examiners can take DET by using computer and DET can be scored through electronic devices (Wagner, 2020). During the pandemic period, teachers from various universities started to adopt online platforms for taking examinations of students. Duolingo English Test began its journey in 2014 and accepted after COVID-19 crisis (Wagner & Kunnan, 2015). According to Wagner (2020), a refined version of DET was introduced in 2019 for foreign university admission purposes. Scores on the DET are used for foreign university admissions purposes (LaFlair & Settles, 2019). Before preparing a test, teachers need to focus the qualities of that test accessibility, reliability, validity etc. Duolingo English Tests are easily accessible for the efficient English language learners (LaFlair & Settles, 2019). According to Wagner (2020), DET is less costly than other proficiency tests. Learners need not to go to the examination hall rather they can use computer with strong internet connection for participating in DET.

DET is reliable because of its scoring process which is different from other proficiency tests. Scoring can be done through computer to avoid biasness. In addition, Duolingo English tests are valid as it perfectly measures what it is supposed to measure (Wagner, 2020). Therefore, the teachers first need to know the usefulness of Duolingo as an assessment tool and try to implement this tool in their classroom. The next section will briefly discuss about the research gap of this study.

2.4. Research Gap

From the above information we can observe that Duolingo application has a great contribution in English language learning. The existing literature reveals some of the major issues for example, the role of gamification as a language

learning tool, Duolingo as an online language learning platform and Duolingo English Tests. The issues mentioned above have not been addressed in the context of Bangladesh. People may not have proper knowledge about Duolingo application and its functions. This study will mainly focus on the experiences that the Bangladeshi tertiary level students gathered while giving Duolingo English Tests. The study ends with suggesting some recommendations on how Duolingo English Tests can be applied in Bangladeshi English language classes. In addition, most of the existing literature followed quantitative and mixed methods. Therefore, this study will present detailed information on the influences of Duolingo English Tests on Bangladeshi tertiary level students' English language learning by following qualitative method.

3. Methodology

3.1. Research Design

Qualitative research method was used to conduct this research. The main feature of qualitative method is to investigate a central problem and develop an elaborate understanding of that problem (Creswell, 2012). This research method is useful for the researcher to collect in-depth information from the participants. The researcher chose inductive approach for this study. The purpose for using an inductive approach is that this approach can generate reliable and valid findings by scrutinizing qualitative data and inductive approach is easier than other approaches in analyzing qualitative data (Thomas, 2006). The researcher collected participants' opinions through semi-structured interviews to collect detailed information. The following section will highlight the research questions of this study.

3.2. Research Questions

The research questions of this study are:

- 1) What are the influences of Duolingo English Tests on the tertiary level students of Bangladesh?
- 2) How Duolingo English Tests can be applied in Bangladeshi English language classes?

3.3. Participants

Choosing an appropriate sampling technique is essential for conducting a research. Purposive homogenous and snowball sampling techniques were adopted for the study. According to Patton (2015), in purposive homogenous sampling technique the researcher selects cases that are very similar to study the characteristics they have in common. The researcher must choose participants with similar characteristics. Homogenous sampling concentrates on participants who have similarities in terms of jobs, culture and age (Etikan, Musa, & Alkassim, 2016). The researcher chose homogenous sampling technique because the main criterion of selecting participants was to choose Bangladeshi students who know

the functions and applications of Duolingo. The reason behind choosing this criterion is that if the students used Duolingo application they can answer the interview questions related to Duolingo tests. Other criteria were: 1) the students must be from private university where the medium of instruction is English, 2) their age range is 19 - 25, 3) they are from Bangla medium background and 4) they must be willing to be a part of this study. For the reasons mentioned above the participants are suitable for this research. Most of the participants are from Bangla medium background. Their names are given below:

Participants' Table

Name (pseudonyms)	Background
Name (pseudonyms)	Background
Ratul	Bangla medium
Shafiqul	English medium
Sreetoma	Bangla medium
Rajib	Bangla medium
Nipa	English medium
Anjie	Bangla medium
Sandip	Bangla medium

In addition, the researcher selected snowball sampling technique for this research. Researchers use snowball sampling when it is difficult to reach to the expected population for this study (Anieting & Mosugu, 2017). Duolingo is a new application for Bangladeshi students. For this reason, the researcher followed snowball sampling method. The researcher first posted in different Face book groups whether students used Duolingo application at least twice. One student responded to the post first. Then, the researcher contacted with the student via messenger and asked her whether she was free for the interview session. After getting her permission, the researcher took contact number of another student who gave Duolingo tests in English classrooms. Thus, the researcher could manage seven participants for the interview.

3.4. Instrument

Interview technique was used by the researcher to collect the data. According to Bolderston (2012), researchers take face-to-face qualitative interviews by listening and gaining information from participants. There are different kinds of qualitative interviews. Among those interviews E-mail or internet interview is a prominent one. Semi-structured interviews can be taken through electronic devices which include e-mail, instant messaging, video-conferencing and others. The researcher took semi-structured interviews of seven participants from a renowned private university of Bangladesh. The researcher made twelve open-ended interview questions for the participants. In qualitative interviews researchers ask topic-related questions and note down their answers (Creswell,

2012). This instrument will make this research reliable.

3.5. Data Collection Procedure

After making twelve interview questions the researcher did a pilot study. The researcher piloted the interview questions with three participants Rahim, Nashrah and Antonio (pseudonyms). The researcher chose these three students because these students did their thesis by using qualitative method in their postgrad level and had good knowledge on the patterns of interview questions.

Harding (2013) mentioned that the researcher will get benefits if he/she pilots the interview questions. Therefore, among seven participants one participant did not want to give face to face interviews via zoom meeting because of her hesitation to speak in English. For this reason the researcher took her interview via e-mail. According to Creswell (2012), researchers send open-ended questions to the respondents through their e-mail by using internet facilities. The researcher sent the interview question to that participant via e-mail and the participant replied.

The researcher then noted down her answers. The rest of the participants gave their interviews via zoom meeting. One-on-one interviews are good for those respondents who can speak without any hesitation (Creswell, 2012). The researcher did a member checking to develop validity and credibility of the study at the last stage of data collection process (Carlson, 2010).

3.6. Interpretation of Data

Qualitative thematic analysis is a method which is used to analyze qualitative data in this research. Thematic analysis is a process which identifies, analyzes, describes and presents themes within discussion part (Braun & Clarke, 2006). The researcher adopted data analysis framework proposed by Braun & Clarke (2006) which consists of six steps. These steps are mentioned below:

Familiarization with collected data:

In this phase, the researcher read transcript or listen to video recordings to become aware of the information. She read the answers of the interview questions thoroughly.

Generating Initial Codes:

This phase scientifically analyzes data through codes. Qualitative coding helps the researcher to effectively classify the excerpts of the qualitative data (Savage, 2000). The researcher tried to find out interpretive codes from the answers.

Searching for Themes:

After coding data the researcher searched for similar codes to generate themes. King (2004) stated that, predefined codes need to be identified first. The researcher found major themes from the similar codes.

Reviewing Themes:

Themes need to have connection with coded data. Then, the researcher reviewed the coded data to find coherence with themes (Braun & Clarke, 2006).

Defining and naming themes:

In here, the researcher gave names to each of the themes. She gave enough time to name the themes. King (2004) suggested that before finalizing themes it needs to be evaluated at least twice. After evaluating the data and codes the researcher finalized themes of the study.

Producing the report:

After establishing themes, the researcher began to write the final report (Braun & Clarke, 2006). Thorne (2000) encouraged that researchers need to develop the findings in a systematic process which will make the results believable.

3.7. Ethical Consideration

While seeking permission from the respondents the researcher explained the purpose of this research to them (Creswell, 2012). As the participants are classmates of the researcher, she (the researcher) asked for the permission of the participants through messenger chat and told them the purpose of the research. In addition, the researcher used pseudonyms of the participants in this study.

4. Findings

4.1. Online Learning Platforms

Online learning applications offer learners what they need for their educational purposes. These platforms are also considered outstanding way for the teachers to evaluate students' performances. All seven interviewees used Duolingo application to check their proficiency level in English, French and German languages. They used this platform not only in language classrooms but also at their home. Besides Duolingo participants used other online platforms for instance, Kahoot!, Coursera,, You Tube and Facebook. Among seven participants, one participant from a private university of Bangladesh said that, he gave Duolingo Tests in an English language learning institution and it was a fun activity to him. On the contrary, in his university, teachers post study materials in You Tube and Facebook which helped the students a lot. Another student also said that, she did not know about the functions of Duolingo platform but her friend taught her how to use Duolingo application in an easy way. She used Duolingo for her academic purposes. In the following part, the researcher will explain the advantages of using Duolingo application.

4.2. Advantages of Using Duolingo Application

Duolingo is a well-known language learning platform. It is a helpful platform for language learners because Duolingo tests can provide fun and game like environment. Among seven participants one student who is from a public university of Bangladesh mentioned that, students can use Duolingo application anytime at anywhere. This platform is easily attainable for the language learners. Another male respondent from a private university of Bangladesh said that, Duolingo application helped him to understand basic grammatical structures. By using this

application he also learned many new words. Duolingo platform plays an essential role to increase students' proficiency in English and other languages. Ratul, who is a student from a private university of Bangladesh noted that, he used Duolingo application to learn French language and he found this application very helpful. He tried to learn some French vocabulary and used it as well in his conversations. From this excerpt from the interview, we can say that Duolingo application is beneficial not only for learning English language but also for other languages it is a useful platform. Therefore, Anjie, a female student from a private university of Bangladesh mentioned that, Duolingo application does not support the role of memorization rather it teaches language by using context. Almost all the respondents agreed with the fact that Duolingo application is important for the language learners to learn a language within a short amount of time. Moreover, in the next section, students' experiences in participating Duolingo English Tests will be discussed.

4.3. Duolingo English Tests

Duolingo English Tests are quite standard than other forms of tests. The questions that teachers include in Duolingo English Tests are straightforward. Seven participants have both positive and negative experiences in participating DET. Sandip, who is a student of a public university of Bangladesh said that, he answered all the questions in DET within time limit and got the results immediately. He participated in DET by using computer. It is a benefit of DET that students can participate in the tests via different electronic devices. Another private university student of Bangladesh mentioned that, she was not good at English vocabularies but after participating in DET she understood her lacking in English vocabularies. Therefore, DET is beneficial for students' to understand their proficiency level in English and other languages. Sreetoma, who is a Duolingo user and a student from a public university of Bangladesh said that, DET has different levels from easy to difficult. With every correct answer the difficulty level of the test will increase so she sometimes faced problems in answering difficult questions. Though DET has difficulty level, students need to participate in this test to develop their English language skills. Rajib, another public university student mentioned that, he wants to complete his M. A. degree from Canada and many Canadian universities accept DET. To complete post-graduation from abroad he will participate in Duolingo English Tests. He also mentioned that, DET creates game like environment for the learners. Another public university student shared a negative comment that, he faced internet connection problem while giving DET which hampered his motivation in the test. In the following part how Duolingo English Tests can be applied in Bangladeshi context will be discussed.

4.4. Det in Bangladeshi Language Classrooms

Duolingo English Test is a new concept for Bangladeshi students. Seven participants gave some suggestions on implementing DET in Bangladeshi language class-

rooms. The common suggestion is that, before using Duolingo application in language classrooms teachers and students need to have proper knowledge on the use of Duolingo application. Teachers need to have proper training on how to arrange exam questions by using Duolingo application. After having proper training, Bangladeshi teachers can implement DET in language classrooms. During COVID-19 period, it is easy for Bangladeshi teachers to take English proficiency tests by using Duolingo application at home. Another female student from a public university of Bangladesh said that, teachers and students who belong to public universities of Bangladesh do not know about DET. Therefore, teachers need to be motivated to use DET in language classrooms to evaluate students' academic progress. Rajib said that, proper Wi-Fi connection is needed for the teachers to operate Duolingo English Tests in Bangladeshi language classroom.

5. Discussion

The researcher mainly explored two research questions in this study. The influences of Duolingo English Tests on the tertiary level students' of Bangladesh and how DET can be implemented in Bangladeshi language learning classrooms. In the findings section we can see that, participants gave various comments on how Bangladeshi instructors can implement DET in language classrooms. In the findings section one participant mentioned that, to get admission in Canadian university he will take part in DET which Wagner (2020) mentioned in his article that to get admission in foreign universities Duolingo English Tests is essential. Wagner (2020) also supports the idea of Sandip who is a student of a public university of Bangladesh. Sandip mentioned that, learners can join DET through different electronic devices for instance, smartphone, computer etc. Yuruk (2019) mentioned that, Duolingo application can make an interactive environment in language classrooms. This idea was supported by most of the participants in the interview process. Language learners can access Duolingo application anywhere. If the students' want to check their proficiency level in English language at home they can download Duolingo application in their smart phone or laptop. Then, they can participate in DET. These ideas were mentioned in the literature review section. Besides similarities, there are other comments which do not support literature review section.

In the findings section, one participant from a public university of Bangladesh said that, he faced internet connection problem while giving DET but in the existing literature none of the researchers mentioned this problem. Moreover, the researchers have not addressed how Bangladeshi teachers can implement DET in language classrooms. DET can engage the learners in classroom activities. Teachers can use DET instead of pen and paper exams to evaluate learners' academic progress. Duolingo English Tests not only increases learners' motivation and self-confidence but also creates enjoyable environment in language classrooms which the researchers mentioned in their articles on Duolingo application, followed by some concluding remarks.

6. Concluding Remarks

As concluding remarks, it can be said that, Duolingo is an easily accessible platform for free language learning and it opens a new door for the learners to learn new languages (Ahmad, 2021). In Bangladesh, tertiary level students heard about IELTS or TOEFL exams but Duolingo English Tests are new for Bangladeshi students. Therefore, the experiences of Bangladeshi students regarding the influences of Duolingo English Test need to be explored. As Bangladeshi students do not know the functions of Duolingo application, it is also essential to examine how students utilize Duolingo application inside and outside classroom settings. In addition, this study is mostly important for Bangladeshi students' for understanding the implications of Duolingo application in language classrooms. Students may not find enough opportunities to evaluate their academic progress in informal settings. Duolingo English Tests can help them to minimize this problem. As technological development is increasingly gaining momentum, the use of Duolingo application will be far more acceptable to the future students who would be learning new languages.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Ahmad, M. (2021). Criticizing Duolingo as a Learning App: Perspectives of Learning Game Designer and Language Teacher. In *Proceedings of INTED2021 Conference* (pp. 10610-10619). IATED Digital Library Home. https://doi.org/10.21125/inted.2021.2225
- Ajisoko, P. (2020). The Use of Duolingo Apps to Improve English Vocabulary Learning. International Journal of Emerging Technologies in Learning, 15, 149-155. https://doi.org/10.3991/ijet.v15i07.13229
- Alsawaier, R. (2017). The Effect of Gamification on Motivation and Engagement. *International Journal of Information and Learning Technology, 35*, 56-79. https://doi.org/10.1108/IJILT-02-2017-0009
- Anieting, A. E., & Mosugu, J. K. (2017). Comparison of Quota Sampling and Snowball Sampling. *An International Multidisciplinary Research e-Journal*, *3*, 33-36.
- Ara, R. (2020). A Foreign Language or the Second Language: The Future of English in Bangladesh. *International Journal of Language Education*, *4*, 81-95. https://doi.org/10.26858/ijole.v4i2.10458
- Bicen, H., & Kocakoyun, S. (2018). Perceptions of Students for Gamification Approach: Kahoot as a Case Study. *International Journal of Emerging Technologies in Learning*, 13, 72-93. https://doi.org/10.3991/ijet.v13i02.7467
- Bolderston, A. (2012). Conducting a Research Interview. *Journal of Medical Imaging and Radiation Science*, 43, 66-76. https://doi.org/10.1016/j.jmir.2011.12.002
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology, 3,* 77-101. https://doi.org/10.1191/1478088706qp0630a
- Carlson, J. (2010). Avoiding Traps in Member Checking. *The Qualitative Report, 15,* 1102-1113.

- Creswell, J. W. (2012). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research (4th ed.). SAGE Publications.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*, 1-4. https://doi.org/10.11648/j.ajtas.20160501.11
- Fadilah, K. (2022). Students' Perceptions on the Use of Duolingo Application in Learning English during COVID-19. *Vision, 18,* 95-105. https://doi.org/10.30829/vis.v18i2.1445
- Graham, K. (2015). TechMatters: Getting into Kahoot! (s): Exploring a Game-Based Learning System to Enhance Student Learning. *LOEX Quarterly*, *42*, 6-7.
- Harding, L. (2013). Qualitative Data Analysis: From Start to Finish. Sage Publications
- Jabeen, S. S., & Thomas, A. J. (2015). Effectiveness of Online Language Learning. In Proceedings of the World Congress on Engineering and Computer Science (Vol. 1, pp. 21-23).
 - https://www.researchgate.net/publication/311352498 Effectiveness of Online Langua ge Learning?enrichId=rgreq-a027707742520f87f52d1d10e93fe6b5-XXX&enrichSource =Y292ZXJQYWdlOzMxMTM1MjQ5ODtBUzo0MzUxMjI3ODk5ODIyMDlAMTQ4M Dc1Mjc2NTg1MA%3D%3D&el=1 x 2& esc=publicationCoverPdf
- King, N. (2004). Essential Guide to Qualitative Methods in Organizational Research. Sage.
- LaFlair, G., & Settles, B. (2019). *Duolingo English Test: Technical Manual*. https://s3.amazonaws.com/duolingo-papers/other/Duolingo%20English%20Test%20-%20Technical%20Manual%202019.pdf
- Mahfouz, S. M., & Ihmeideh, F. M. (2009). Attitudes of Jordanian University Students towards Using Online Chat Discourse with Native Speakers of English for Improving Their Language Proficiency. *Computer Assisted Language Learning*, *22*, 207-227. https://doi.org/10.1080/09588220902920151
- Munday, P. (2016). The Case for Using DUOLINGO as Part of the Language Classroom Experience. *RIED*, *19*, 83-101. https://doi.org/10.5944/ried.19.1.14581
- Nurhadianti, & Pratolo, W. B. (2020). Students' Perception toward the Application of Kahoot! As an Assessment Tool in EFL Class. *Universal Journal of Educational Re*search, 8, 2150-2155. https://doi.org/10.13189/ujer.2020.080554
- Patton, M. Q. (2015). Qualitative Research and Evaluation Methods (4th ed.). Sage.
- Savage, J. (2000). One Voice, Different Tunes: Issues Raised by Dual Analysis of a Segment of Qualitative Data. *Journal of Advanced Nursing, 31*, 1493-1500. https://doi.org/10.1046/j.1365-2648.2000.01432.x
- Thomas, D. R. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, *27*, 237-246. https://doi.org/10.1177/1098214005283748
- Thorne, S. (2000). Data Analysis in Qualitative Research. *Evidence Based Nursing, 3*, 68-70. https://doi.org/10.1136/ebn.3.3.68
- Wagner, E. (2020). Duolingo English Test. Language Assessment Quarterly, 17, 1-16.
- Wagner, E., & Kunnan, A. (2015). Review of the Duolingo English Test. *Language Assessment Quarterly: An International Journal*, 12, 320-331. https://doi.org/10.1080/15434303.2015.1061530
- Whitton, N., & Moseley, A. (2010). *Using Games in Enhancing Learning and Teaching: A Beginner's Guide.* Taylor and Francis.
- Yaccob, N. S., & Yunus, M. M. (2019). Language Games in Teaching and Learning English Grammar: A Literature Review. *Arab World English Journal*, *10*, 209-217. https://doi.org/10.31235/osf.io/e4zhx

Yuruk, N. (2019). Edutainment: Using Kahoot! As a Review Activity in Foreign Language Classrooms. *Journal of Educational Technology & Online Learning, 2,* 89-101. https://doi.org/10.31681/jetol.557518

Zickermann, G., & Cunningham, C. (2011). *Gamification by Design: Implementing Game Mechanics in Web and Mobile App.* O'Reilly Media Inc.