INFUSING A GAMIFICATION MECHANISM THROUGH DUOLINGO FOR ENGLISH SPEAKING PROFICIENCY: PERCEPTIONS OF THE INDONESIAN EFL INSTRUCTOR AND STUDENTS

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ABSTRAK :

Tujuan penelitian ini adalah untuk mengeksplorasi persepsi instruktur Bahasa inggris dan siswa terhadap implementasi mekanisme gamification dengan menggunakan Duolingo pada kemahiran *speaking* Bahasa inggris. Untuk mencapai tujuan tersebut, dengan menggunakan *Explanatory Research Design*, kuesioner dan *semi-structured interview* dikembangkan sebagai instrument utama dalam penelitian ini. Partisipan dalam penelitian ini terdiri dari 1 orang instruktur bhasa inggris dan 10 siswa disalah satu Madrasah Aliyah swasta di Situbondo, Indonesia. Hasilnya menunjukkan bahwa secara umum participant memandang Duolingo membawa pengaruh positif terhadap proses pembelajaran speaking Bahasa Inggris. Hal senada juga diungkapkan oleh instruktur Bahasa inggris dan beberapa siswa yang menyatakan bahwa aplikasi ini sangat membantu proses pembelajaran dalam hal; pengelolaan tugas kelas dan *assessment*. Namun, ada beberapa participants yang juga melaporkan beberapa kekurangannya. Simpulan, keterbatasan penelitian, dan saran dirumuskan untuk penelitian selanjutnya.

Kata Kunci: *gamified learning, duolingo*

ABSTRACT :

This current study is to examine both EFL instructor and students concerning the use of Duolingo for English speaking proficiency. To serve this purpose, an explanatory research design was employed. A set of questionnaire and semi-structured interview developed as the primary instruments for this current study. One EFL instructor and ten EFL students in one of the private Islamic Senior High School in

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Situbondo, Indonesia, involved as research participants in this study. In general, they perceived Duolingo in a positive ways. The findings resulted from semi-structured interview carried out with EFL instructor and the samples of the students revealed that Duolingo facilitated him/her in managing the classwork and assessment. However, some participants also reported several drawbacks. Conclusions, limitations, and recommendations were made for the further research.

Keywords: *gamified learning, duolingo.*

INTRODUCTION

Mobile devices have been acknowledged for their potential benefits in language learning process. There have been various scholarly articles admitting that they have a huge contribution in the context of language learning. For instance, a great deal of effort has been devoted to understanding how mobile technologies relate to both traditional and innovative ways of teaching and learning, showing the applicability of mobile learning across a wide spectrum of activity (Attewell et al., 2005; Kukulska-hulme, 2013).

In recent decades, MALL (Mobile-Assisted Language Learning) becomes the marked term in the process of language-learning. This term is basically referred to as the language-learning process assisted or enhanced through the use of a handheld mobile device(Hashim et al., 2017). Further, Lan & Sie (2010) revealed that M-learning (Mobile learning) is a such of learning model that obtain learners to access anytime-anywhere learning through mobile communication, mobile devices, and internet. Several works employed M-learning in many diffetent settings have summarized positive impacts (Al-emran et al., 2018; Lyddon, 2019; Sarrab, 2015; Yousafzai et al., 2016). Similarly, it has also acknowledged the positive results implemented in language-learning context: vocabulary (Alemi et al., 2012), writing (Andujar, 2016), listening (Azar & Nasiri, 2014), speaking (Moreno & Vermeulen, 2015).

In order to increase foreign language (FL) instruction for students, there is a need for creative, low cost, and low resource intensive solutions. Gamification could be the solution to tackle this issue aiming to help EFL instructor in developing, deploying or designing both more effective and efficient learning material (Rodrigues et al., 2019; Toda et al., 2019). It is the building of game like elements into contexts which aspires to introduce objectives of learning, engage students in several abilities, optimize learning, support behavior change, and socialize in environment (Dichev & Dicheva, 2017; Knutas et al., 2014; Krause & Williams, 2015). With the significant

growth of mobile devices nowadays, digital game-based learning activities is viewed as an alternative solution as we can see among today's society.

Duolingo is a web-based language-learning platform with more than 120 million users worldwide so that this language-learning platform has become one of the most popular language learning applications focusing on learning grammar and vocabulary acquisition on a variety of subject (Botero et al., 2018; Cerone & Zhexenbayeva, 2018). It is available as a mobile application freely downloaded in Play Store and App Store. Providing the user with free, fun and personalized education to users globally through the translation method are the primary purposes of Duolingo (Savvani, 2019). To do so, users are required to evoke the meaning of a particular sentence in the target language (TL) as well as providing the translation of the sentence in their native language.

Further, research into participants' perceptions toward the use of Duolingo is currently growing. More specifically, the efficiency of Duolingo as a promising tool for language learning have been much investigated in many different contexts; for example in (Savvani, 2019) and (Botero et al., 2018). However, the study about secondary EFL students' perceptions toward the use of Duolingo in the context of English language learning, particularly in Indonesia, is still scarce. The plausible reason is that they have no information concerning what Duolingo is and how simple to use and the importance of English speaking proficiency with low cost of cent.

As aforementioned, for fulfilling the needs of the students in English learning language, a critical study must be undertaken. Thus, this study addresses to explore both the English instructor and students' perceptions toward the use of Duolingo as a digital game language learning application in the context of secondary education in Indonesia. The contribution of the study will provide new insight for the EFL English teacher and fill up the student needs in learning English, paticularly in speaking proficiency. For future researcher, this study hopefully become the basis data to enrich literature reference in exploring new ideas about the use of Duolingo in various different contexts. The research question of this study constructed as follows: "What perceptions do the Indonesian instructor and students have of the integration of Duolingo in EFL context?"

METHOD

This current study employed explanatory research design in which qualitative findings will refine the quantitative findings (Fraenkel et al., 2012). The two types of data are analyzed separately, with the results of the qualitative analysis used by the researcher to flesh out quantitative findings. Adapting the procedures adapted from (Botero et al., 2018), this study

involved one English instructor and ten (*n*=10) students in one of private Islamic Senior High School in Situbondo, Indonesia. Of the 10 students, 5 (50%) were male and 5 (50%) were female. All participants' age ranged 15 – 17 dominated by 16 years old (60%). Meanwhile 15 & 17 years participants are each only 20%.

The instruments employed in this current study were an anonymous questionnaire and semi-structured interview. More specifically, this anonymous questionnaire was drawn from (Botero et al., 2018). They employed Likert scale questionnaire, ranging from 1 to 5 (from strongly disagree to strongly agree). In addition, it comprised 12 question items; 2 question items were intended to collect the participants' demographic data, 2 questions were designed for gathering the data concerning with mobile integration for learning. With respect to Duolingo integration, the researchers were designed 3 items regarding to classroom interaction, 3 items concerning the students' engagement, motivation, and competitive learning, 2 items about the recommendation for the future users.

To gain in-depth understanding about this research topic, semi-structured interview with open questions was also designed to verify data from the participants resulted from the questionnaire. The researchers carried out this interview with one instructor (*n* = 1) and the samples of the students (*n* = 3) in their native language, Bahasa Indonesia. The researchers conducted one-to-one interview with the instructor and focus-group interviews with the students, as recommended by Burner (2016). Those interviews lasted approximately between 15 and 20 minutes. The interview guidelines for the instructors consisted of two areas: (1) The role of Duolingo in facilitating both English classroom and assessment, and (2) The role of Duolingo in assisting the learners to access the materials. The students' questions focused on prompting the students to express their perceptions on (1) features in Duolingo, and (2) identifying shortcomings when they used Duolingo for their learning.
As for the data analysis, the data collected from the questionnaire displayed in the form frequencies and percentages illulanSustrated in a table. Meanwhile, the verbal data gathered from the interview were firstly recorded, transcribed, coded, and interpreted, as recommended by Mahbub (2019).

RESULT AND DISCUSSION
Results from Questionnaire
This following sub-section will illustrate the data resulted from the questionnaires and semi-structured interview. The participants' responses resulted from questionnaires will be displayed in the form of the frequencies

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and percentages. The second instrument, one-to-one interview, conducted with one English instructor and three participants are in the form of verbal data in their experience in infusing Duolingo in their class room to be deeply illustrated after displaying the data from the questionnaires.

The result of Q3 and Q4 measuring the participants' response regarding to MALL (Mobile-Assisted Language Leaning) in their classroom are going to be illustrated in this following table.

Table 1. Students' Perceptions on MALL

Item	Question	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Q3	M-Tech is effective tool for my study.	0	0	0	80	20	4.2	0.42
Q4	M-Tech helps me to access the materials anywhere & anytime	0	10	10	70	10	3.8	0.79

As illustrated from table 1, the participants' response on Q3 indicated that the vast majority (20% strongly agree, 80% agree) agreed with the integration of mobile devices as language learning tool in the classroom. For Q4, the majority of the participants (10% strongly agree, 70% agree) confirmed that MALL is very helpful in accessing their learning materials.

Further, table 2 provides the descriptive statistics of participants' responses on the use of Duolingo.

Table 2. The Students' Classroom Interaction

Item	Question	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Q5	I am so happy when using Duolingo in my class.	0	0	0	70	30	4.3	0.48
Q6	Duolingo is helpful in our interaction with our friends in class.	0	10	0	40	50	4.3	0.95
Q7	Duolingo facilitated the students-teacher interaction.	0	10	0	70	20	4.00	0.82

As shown in table 2, the participants mostly confessed that they were happy to use Duolingo in their language learning process in their classroom. For Q6, they admitted that Duolingo could promote their learning interaction. It was only a small percentage (10%) that they disagree with that statement. Similarly, the result of item 7 indicated that they (90%) mostly confirmed that Duolingo facilitated students-teacher interaction and vice versa.

The participants' positive views on the use of Duolingo could also be seen from their responses on Q8, Q9, Q10, and Q11. Nearly all of participants agreed that this platform inspired their learning process. For Q9, the majority

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of the students admitted that this app motivated them to learn English. Similarly, the vast majority of the students experienced Duolingo could promote a competitive learning atmosphere. Table 3 will provide the descriptive statistics of those findings in more details.

Table 3. The Students' Engagement, Motivation, and competitive learning

Item	Question	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Q8	Learning English with Duolingo inspire and desire us in learning process.	0	0	0	10	90	4.9	0.32
Q9	Using Duolingo motivates me in learning English.	0	0	0	30	70	4.7	0.48
Q10	Leaning English with Duolingo gives a competitive learning atmosphere.	0	0	0	30	70	4.7	0.48

The results of the participants' responses on Duolingo concerning recommendation for the future users (Q11 & Q12) will be succinctly presented in table 4.

Table 4. Participants' Recommendation for the Future Users

Item	Question	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Q11	Duolingo is effective and useful to be implemented in high school.	0	10	0	60	30	4.1	0.88
Q12	I recommend Duolingo as a media in learning English language process.	0	10	10	60	40	4.4	0.52

As shown in table 4, the participants mostly recommended Duolingo to be integrated in the high school in both formal and informal classroom. They admitted that this integration will be effective for their future language-learning. Similarly, for Q12, 90% participants recommended Dulolingo as the powerful instructional media for their English learning.

Findings from Semi-Structured Interview

The data resulted from the Semi-structured interview conducted with one English instructor and students are going to be described in this following sub section.

Findings from the Instructor's Interview

The result from Q1 with English instructor, "*Apakah Duolingo memudahkan anda untuk mengelola kelas bahasa Inggris dalam hal memilih materi yang sesuai dengan level siswa saya?",* indicated that s/he claimed that Duolingo is very promising in assisting his/her class. The instructor response included:

> "*I think that Duolingo is like my assistant now. … it helps me to provide plenty of opportunities for practicing English inside or outside the classroom. Also, I can choose the most appropriate materials for my students.*"

Following is the result from Q2 "*Apakah Duolingo memudahkan anda dalam mengelola Assessments?*" The instructor approved that Duolingo helps her/him to give the assessment or homework for the students. Moreover, Duolingo features allowed him/her to control the progress as well as the time allotment. Even, s/he could send a reminder to all the students through Duolingo.

For Q3, "*Apakah materi di Duolingo sangat mendukung pembalajaran materi anda di kelas?*" The result indicated that according to the instructor, the material given in Duolingo was really helpful and suitable with the material in the class. It was due to the level in Duolingo could be modified in accordance the material in the class.

Findings from the Students' Interviews

The findings from the focus-group interviews with the students will be illustrated in accordance with the areas previously mentioned. The first facts that could be revealed from this data-gathering process concerning the features embedded in this platform is that they fully appreciate those features as positive, particularly in collaborative and competitive aspects:

> "*Well, it's so cool, I think. I'm very pleased that I can work on the task with my friends. …*" (S2, Female)

Another student says:

> "*… Awesome, It's very interesting. I always stay motivated to compete against my classmates. …*" (S1, Male)

When asked about the limitations they encounter while using Duolingo, they confess that internet connection has been problematic for some students:

> "*… We are living in rural areas. The internet connection was not stable. We are so struggled with that. …*" (S1, Male)
> *As 4G network is not available in my village, I cannot enjoy the fast network. So, it's very annoying …*" (S3, Female)

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Furthermore, another students focuses on the prices of internet packages:
"… The cost of internet data packages is so expensive. (…) around IDR 100.000,- for unlimited data per 30 days".

Discussion

In general, findings from the two set analysis resulted from questionnaire and semi-structured interview suggest that both English instructor and students perceive Duolingo in positive ways. The findings of this study on Q3 & Q4 demonstrate that the participants view mobile devices integrated into the classroom as a promising tool to enhance learning. This may due to the accessibility offered by mobile devices in surfing the course contents 24/7, anywhere and anytime, so that they will get a better understanding on the course materials. These findings corroborate the previous study (Montrieux et al., 2015).

In accordance with the result on Q5 to Q7, it can be revealed that this app also provides more enjoyment in the English classroom so that it will significantly affect the students' engagement. In addition, it also has great potentials in promoting teacher-students interaction. A number of students also claim that Duolingo can facilitate classroom engagement as well as promoting teacher-student interaction (Botero et al., 2018; Crowther et al., 2017; Finardi & Amorim, 2016; Savvani, 2019).

For item 8 – 10, the findings also indicated that Duolingo facilitates their English language learning. Further, the learners are also motivated by the use of Duolingo in both formal and informal classroom. From Q10, it can be revealed that Duolingo can foster a competitive learning atmosphere between the students. Those all findings are in line with the various past contemporary research (Loewen et al., 2019; Nushi & Eqbali, n.d.; Wang & Christiansen, 2019) admitting that Duolingo has the ability to facilitate the students' English learning, promote students' motivation, and foster a competitive learning atmosphere in the classroom. Concerning the recommendation of Duolingo to be integrated in pedagogical practices (Q11), the data indicate that participants highly recommend this platform to be used in high school setting.

The findings from semi-structured interview conducted with the instructor have also revealed the positive results. It can be concluded that Duolingo has the ability to facilitate the teachers to manage their students' classwork and homework, manage their classroom assessment. Several previous works have also reported the same findings (Botero et al., 2018; Cerone & Zhexenbayeva, 2018; Garnes-tarazona, 2018; Silva et al., 2019).

Similarly, qualitative data resulted from data-gathering process through focus-group interview also indicated positive beliefs about the integration of Duolingo into pedagogical practices in both formal and informal classrooms.

This language learning app supports collaborative learning environment as well as competitive learning atmosphere among the students, also supported by other studies (Nushi & Eqbali, n.d.).

However, despite the fact that Duolingo is useful for language learning, some participants reported some limitations of Duolingo. First, they are struggled with the internet access and the place they are living in. They cannot enjoy 4G LTE network as they are mostly living in rural areas. Others are centered on criticizing the price of internet data packages. The costs of the 4G LTE data for a 30-day period are relatively expensive for them. The same findings are also reported in other previous contemporary research (Gafni et al., 2017).

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

This study examined the instructor and students' views toward the use of Duolingo as a digital game language learning application in the context of ELT in secondary education in Indonesia. It has provided empirical evidence concerning the gamified learning via Duolingo in speaking skill. The findings indicate that student could enjoy learning activity. Thus, the aim of this study has quietly achieved. However, the current study has limitations that should be acknowledged. It is crucially important to note that this current study is only in the area of English speaking skill. It is still unclear whether or not its findings can be generalized to other skills. Moreover, this study took place in the context of secondary education in rural areas. Therefore, as a suggestion for future works, this study calls for either researchers or scholars to carry out further studies exploring gamified learning with Duolingo from many different aspects or skills in many different context; for instance, in higher education (HE) context.

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