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The Effect of DuoLingo and SPADA to Teach Listening to Students with Different Achievement Levels

Hadziq Najmuddin Purwanto ✉, Abdurrahman Faridi, Fahrur Rozi

Universitas Negeri Semarang, Indonesia

Article Info	Abstract
	There are various levels of students' achievement in English listening classrooms. Students with different achievement levels (i.e. high achieveing students and low achieveing students) respond differently towards teaching media as well. The aim of this research was to examine the difference of students' performance, both before and after they were taught by using two English listening teaching media namely DuoLingo mobile application and SPADA (Sistem Pembelajaran Daring Indonesia) platform. As a quantitative research it employed the Experimental factorial 2 x 2 design. Students were divided into two groups based on their achievement classification. The two groups involved in this study were high achieveing students and low achieveing students, and each group were further divided into another two group to be taught with DuoLingo mobile application a for one group and with Sistem Pembelajaran Daring Indonesia platform for the other group. It was found that both Duo Lingo mobile application and Sistem Pembelajaran Daring Indonesia platform does contribute to an increase in students' performance for both high achievers and low achievers. This research is expected to contribute as a reference for English teachers to choose teaching media to teach listening to students with different achievement levels, and also as a further research regarding media usage for teaching listening to students with different achievement levels.

✉Correspondence Address:
Kampus Pascasarjana Universitas Negeri Semarang,
Jl. Kelud Utara III Petompon, Gajahmungkur, Semarang 50237,
Jawa Tengah, Indonesia
E-mail: hadziqwashere@gmail.com

INTRODUCTION

Language is used to communicate, exchange ideas, interconnect between and among its speakers. Language is a way we can communicate. Communication works when both speaker and interlocutor understand one another. Language is a system of communication consisting of sounds, words, and grammar, or the system of communication used by people in a particular country or type of work (Cambridge, 2013). Language is an activity of four kinds: speaking, listening, reading, and writing (Haliday, 1975) Language function is the purpose to achieve when you say or write something (Harmer, 2009). By performing what so-called function, someone performs an act of communication. Language is purposeful (Richard & Rogers, 2001).

Language is the words we use in English, French, German, Mandarin, Polish, or any other of the 7000 or so variations of what we call language. Humans all around the world continuously try to communicate to each other regarding the language barriers. As to overcome the language barrier, a lingua franca is spoken. Many situations are necessary for a lingua franca, for example, when two people from two different countries without common language meet for a trade, a conference, etc. Lingua franca is a language used for communication between speakers of different native languages. English is a lingua franca, the most spoken language worldwide. In Indonesia for example, it is a compulsory subject taught up to universities. Crystal (2003) states that a language achieves a genuinely global status when it develops a special role that is recognized in every country. English mastery is essential for Indonesians to improve its human resources. English mastery prevent Indonesians from falling behind from the global society's advancement.

It is necessary for English teachers to use any media they find suitable to teach the four skills to the English students. The use of technology in education as a multimedia in the teaching and learning process is very important (Maesaroh & Faridi, 2020). Effective use of new technologies improves learners' language learning skills and when technology is used appropriately, it can bring about a lot of advantages to teachers and learners (Ahmadi & Reza, 2018). The application of educational technology enhances skills and cognitive characteristics (Lazar, 2015). As the most challenging and important skill to learn, students often find difficulties in mastering or learning listening. They often found themselves lost and get left behind the chain off messages that they should understand during listening.

Problems arise and turn into an obstacle that English a second language learners have to face upon mastering learning, without any way around are namely cultural differences, accent variations (e.g. American English and British English), unfamiliar vocabulary, speech length and speed, message idea complexity, and not to mention the recording quality or disturbances. Nevertheless, it is important for any English learners to master listening skill no matter what kind of difficulties they may face. Indonesian EFL students find difficulties in listening. There are several difficulties encountered by Indonesian EFL learners namely lack of opportunity, short-term memory, homophone and speech rate (Rakhman, Tarjana, & Marmanto, 2019). Listening comprehensively is one of the ways to build EFL students' Listening skill, however, they still got problem in different phase of listening. students still got difficulty in all three phases of listening problem, they are perception, parsing and utilization, moreover, the highest problems was in perception problem (Zur, 2020).

The listening mastery is very important for English learners to improve their communication skill, as well as to engage in an English communication with English/native speakers. Listening skill is important for learning purposes since through listening students receive information and gain insights (Shariyevna & Israilova, 2020). Listening is the key to establish an effective communication. Without posing an ability to effectively listen, all the intended messages to deliver will be easily misunderstood, causing communication mess up and the interlocutor will be prone to frustration and also

irritation. Listening skill mastery is important both for social and professional environment. listening comprehension becomes the dominating influence on reading comprehension starting even in the elementary grades, and more than that there is a growing number of children who fail to develop adequate reading comprehension skills, primarily due to deficient listening comprehension skills (i.e., poor comprehenders) (Hogan, Adlof & Alonzo, 2014). By the time this research was carried out, the research participants that consisted of the first year students of Universitas PGRI Semarang still find it difficult in receiving messages during listening sections. They are often unable to understand the ideas being conveyed.

There are a number of ways to assisst both learners and lecturers. Choosing the correct learning media will facilitate this learning issue. Golonka et al. (2014) stated that technology enhanced learners' output and interaction, affect and motivation, feedback, and metalinguistic knowledge. As for in many cases, they are readily available. Hwang and Wu (2014) found that mobile technology learning approach has great potential in improving students' learning achievements, motivations and interest. One of the learning media available is DuoLingo mobile application. This mobile application is designed for practicality and content provision. It is student-friendly as they can use it on their mobile phones, makes it possible for them to access whenever and from wherever they might want.

Media is teaching aid to help both the teacher and the student for teaching-learning activity. All the tools are possibly used by the teacher to deliver teaching materials to students in the teaching and learning activities considered as media. Sometimes students are possible to make an independent autonomous learning using certain learning media, without the necessity for a teacher to be present. A well designed learning media greatly helps learners to achieve learning objectives (Sari & Setiawan, 2018). The variety of mobile learning devices may include smartphones, portable media players (such as Apple's iPod), tablet computers and all these applications are incorporated with the WiFi, 4G,

and 4G Long Term Evaluation (LTE), and 5G telecommunication networks (Kumar, Wotto, & Belanger, 2018)

Duolingo Mobile Application is a mobile application for android and iPhone, it is a language-learning platform that includes a language-learning website and app, as well as a digital language proficiency assessment exam. DuoLingo also offers many languages to be learnt, as of August 2018, the language-learning website and app offer 81 different languages courses across more than thirty languages. DuoLingo Mobile Application is one of the modern mobile applications that facilitate second language learners to acquire a second language mastery (Ahmed, 2016). Duolingo Mobile application can be an effective learning tool for English as foreign language students (Matra, 2020). Duolingo Application has a significant effect for students' English mastery (Aulia, Wahjuningsih, & Andayani, 2020) and also, DuoLingo Mobile application enhanced the students' learning motivation, and also vocabulary and grammar development (Zhang & Zou, 2020)

While Sistem Pembelajaran Daring Indonesia is an implementation of remote learning for higher education institutions aimed to improve the accesbility towards a qualified learning. Sistem Pembelajaran Daring Indonesia offers three main programs namely: open materials, open courses, and online courses (Novita & Hutasuhut, 2020). Specific for online course, a continuous intensive instruction is required in such situation as a large percentage of students were unable to pass the completion grade (Najib, 2017)

There is a gap between the benefits the students can achieve if they have optimum listening ability and the current actual condition of their listening ability. On the other hand, there are many ways the educators can do to overcome the obstacles the students face upon developing their listening skill, such as by selecting and using proper teaching aid. Based from this rationale, the researcher intends to review how much does the utilization of DuoLingo Mobile Application as a teaching media can help both high

achieveing and low achieveing students to develop their listening ability.

In response to the present challenges and burdens, teaching English as a second or foreign language especially upon developing listening skill requires its own strategies, approaches, methods, and techniques upon its teaching and learning implementation. Dealing with this challenges and more or less of setbacks, the researcher proposes several background as the reason.

Teaching English as second or foreign language especially upon developing listening skill is often found very uneasy, yet it is essential to develop students' listening to understand the messages being conveyed in English. English listening skill is considered into the most difficult skill to be taught to English as foreign learners, however this process has to be taken and needs to be carried out by English teachers. English teachers have to deal with the difficulties on how to teach listening skill to English as foreign learners students. English language teachers are demanded to find and use proper teaching media, material, and technique in developing students' listening skill. As an addition to that, this study also attempts to find out how much does the use of DuoLingo Mobile Application to be implemented as a teaching media can help to improve students' listening skill. In addition, it is considered very important to provide an alternative way for English teachers in teaching listening skill to second language leraners regarding the kinds of proper media they can employ.

This study asses the effect of DuoLingo mobile application for teaching listening to both high achieveing students and low achieveing students as well as the effect of Sistem Pembelajaran Daring Indonesia to both high achieveing and low achieveing students. The expected benefits of this study is that this study will enrich references by means of providing empirical evidence regarding the effect of DuoLingo Mobile Apllication used for teaching listening skill among high achieveing students, the effect of DuoLingo Mobile Apllication used for teaching listening skill among low achieving students, the effect of Sistem Pembelajaran Daring Indonesia used for teaching listening skill among high achieving students, the effect of Sistem Pembelajaran Daring Indonesia used for teaching listening skill among low achieving students, the better way to teach listening, the influence of students' achivement level on their listening skill, as well as the significance of interaction among teaching methods, listening skill, and students' achievement in listening skill.

METHODS

This study is an experimental research. The most essential characteristic of an experimental research is that this kind of research manipulates the independent variable, that is the researcher designs and sets up the experimental control treatments (Johnson & Christensen, 2008). This research employed the factorial 2 X 2 design. It has two or more independent variables acting on the dependent variable (Cohen, 2007). It allows the researcher to identify the simultaneous as well as separate effects of independent variables (Tuckman, 1978). Through this way, it is possible for the researcher to see how one of the variables might moderate the other.

This research aimed at observing whether there is an interaction between teaching technique and listening skill viewed from students' achievement. The technique for this experimental research is comparing the experimental group and control group. In this research, the researchers involved students who were taught by using Duolingo Mobile Application as the experiment group and students who were taught by using Sistem Pembelajaran Daring Indonesia as control group for the listening teaching technique. Each group was then further divided into two achievement level. Those two achievement level groups are high achievement and low achievement student groups. In this reserach, the researcher sets the teaching technique as the independent variable, and chose listening skill as the dependent variable, and also students' achievement as the moderator variable.

The research subjects were the first year students of Universitas PGRI Semarang as the research population. as for the research sample is the Listening 2A class which consists of 52 students. Those 52 students were further divided into two groups namely the high achieveing group and the low achieveing group. Each of these group was further divided into two groups. One group was taught by using DuoLingo Mobile Application and the other one is taught by using Sistem Pembelajaran Daring Indonesia. Later on, the pre tests and post tests were given to the research participants. After the data was acquired, the data taken was kept to be analyzed by using Microsoft SPSS application /software.

RESULTS AND DISCUSSION

Pre-test and Post-test Result

The data of pre-test and post-test were obtained after conducting the pre-test and post-test. The data were calculated by using Microsoft SPSS application. This process is needed to be carried out in order to measure and to find out the effect of DuoLingo Mobile Application and Sistem Pembelajaran Daring Indonesia in teaching comprehensive listening for high and low achievement students. Table 1 presents the results of pre-test calculation on both experimental classes.

Table 1. Pre-test statistics on both classes

	N	Min	Max	Mean	Std. Dev.
Pre-test DuoLingo Mobile Application High Achievement	10	.65	.95	.79	.098
Pre-test DuoLingo Mobile Application Low Achievement	10	.30	.55	.50	.079
Pre-test Sistem Pembelajaran Daring Indonesia High Achievement	10	.75	.90	.85	.057
Pre-test Sistem Pembelajaran Daring Indonesia Low Achievement	9	.55	.75	.68	.074
Valid N (listwise)	9				

The mean of Pre-test scores of students with high achievement on the first group treated with DuoLingo Mobile Application is .79. On the other hand, the mean of pre-test scores of students with low achievement on the first group treated with DuoLingo Mobile Application is .50. The range of students' pre-test result on the first group is .30 to .95 for both high and low achievement students.

The mean of high achievement students' pre-test scores treated with Sistem Pembelajaran Daring Indonesia on the second group is .85 . As for the mean of low achievement students' pre-test scores treated with Sistem Pembelajaran Daring Indonesia is .68 . The result of the pre-test for the second group ranges from .55 to .90 for both high and low achievement students.

Table 2. Post-test statistics on both classes

	N	Min	Max	Mean	Std. Dev.
Post-test DuoLingo Mobile Application High	10	.75	.95	.87	.067

Achievement					
Post-test DuoLingo Mobile Application Low Achievement	10	.55	.70	.62	.042
Post-test Sistem Pembelajaran Daring Indonesia High Achievement	10	.80	.95	.90	.057
Post-test Sistem Pembelajaran Daring Indonesia Low Achievement	9	.60	.85	.76	.078
Valid N (listwise)	9				

The mean of Post-test scores of students with high achievement on the first group treated with DuoLingo Mobile Application is .87. On the other hand, the mean of post-test scores of students with low achievement on the first group treated with DuoLingo Mobile Application is.62. The range of students' post-test result on the first group is .55 to .95 for both high achieveing students and low achieveing students.

The mean of high achievement students' post-test scores treated with Sistem Pembelajaran Daring Indonesia on the second group is .90. As for the mean of low achievement students' post-test scores treated with Sistem Pembelajaran Daring Indonesia is .76 . The result of the post-test for the second group ranges from .60 to .95 for both high achieveing students and low achieveing students.

In comparison to the pre-test result, the post-test result showed that the post-test score was better than the pre-test. It can be concluded that both DuoLingo Mobile Application and Sistem Pembelajaran Daring Indonesia affect the listening performance of both high achievement students and low achievement students. This result is in line to Maesaroh and Faridi (2020) as the use of technology in education as a multimedia in the teaching and learning process proves to be indeed very important.

Duo Lingo for High Achieveing Students

In the first experimental group, there were 10 students classified as high achieveing students. The treatment for the first experimental group was using DouLingo Mobile Application for teaching listening skill. After obtaining the data of pre-test and post-test, the data were calculated through T-test as one of the statistical analysis.

Accoring to the test, the result of the significant 2 – tailed value is 0.009 which is lower than α 0.05. If the significant t – value is lower than α 0.05 then the null hypothesis is rejected. This way, it is concluded that there was a significant difference between the value of pre-test and post-test. This means that DouLingo Mobile Application is effective for teaching listening skill for high achieving students. This result is in accordance with the result of the study conducted by Hwang and Wu (2014) as they found that mobile technology learning approach has great potential in improving students' learning achievements, motivations and interest and also Matra (2020) as Duolingo application proven to be an effective learning tool for English as foreign language students.

Duo Lingo for Low Achieveing Students

In this first experimental group, there were 10 low achieveing students. The treatment for the first experimental group was using DouLingo Mobile Application for teaching listening skill. After obtaining the data of pre-test and post-test, the data were calculated through T-test as one of the statistical analysis. The second hypothesis addresses the second research question on the effectiveness of DouLingo Mobile Application for teaching listening skill among low achieveing students.

According to the obtained data, the significant 2 – tailed value is 0.009 which is lower than α 0.05. If the significant t – value is lower than α 0.05 then the null hypothesis is rejected. Therefore, it is concluded that there was a significant difference between the value of pre-test and post-test. This means that DouLingo Mobile Application is effective for teaching listening skill for low achieving students. This result confirms Aulia, Wahjuningsih, and Andayani (2020) as Duolingo Application has a significant effect for students' English mastery and also Golonka et al. (2014) as technology enhanced learners' output and interaction, affect and motivation, feedback, and metalinguistic knowledge. In Addition, this result also confirms Zhang and Zou (2020) as DuoLingo enhanced the students' learning motivation, and also vocabulary and grammar development.

Sistem Pembelajaran Daring Indonesia for High Achieveing Students

In this second experimental group, there were 10 high achieveing students. The treatment for the second experimental group was using Sistem Pembelajaran Daring Indonesia for teaching listening skill. After obtaining the data of pre-test and post-test, the data were calculated through T-test as one of the statistical analysis.

The data obtained were analyzed and it was found that the significant 2-tailed is .004 , lower than α 0.05. It indicates that the null hypothesis ($H_0$3) is rejected. This concludes that the Sistem Pembelajaran Daring Indonesia has a significant effect for teaching listening skill for high achieveing students. This is conforming to those stated by Kumar, Wotto, and Belanger (2018) that media could be in any form of technologies that hold the capacity for language learning.

Sistem Pembelajaran Daring Indonesia for Low Achieveing Students

In this second experimental group, there were 10 low achieveing students. The treatment for the second experimental group was similar to the previous treatment namely using Sistem Pembelajaran Daring Indonesia for teaching listening skill. After obtaining the data of pre-test and post-test, the data were calculated through T-test as one of the statistical analysis.

The data obtained were analyzed and it was found that the significant 2-tailed is .010, which is lower than α 0.05. It indicates that the null hypothesis ($H_0$4) is rejected. This concludes that the Sistem Pembelajaran Daring Indonesia has a significant effect for teaching listening skill for low achieveing students.

These findings are in line with similar research conducted by Loewen et al. (2019) on a study examining the progression of Turkish language students with DuoLingo Mobile Application usage on their classroom. It was found that their L2 were improved at the end of the study and it was also found a positive indication on correlation between DuoLingo Mobile Application usage duration and learning gains. Regarding Sistem Pembelajaran Daring Indonesia Platform usage on language classroom, there were few research conducted. Similarly, Rusdiana and Nugroho (2020) did a study concerning on Sistem Pembelajaran Daring Indonesia Platform and upon the study, it was found that the usage of Sistem Pembelajaran Daring Indonesia Platform on classrooms increases learners' curiosity on a subject. Based on those studies, both DuoLingo Mobile Application and Sistem Pembelajaran Daring Indonesia Platform does help students in improving their learning performance.

This study adds further details on those previous studies' findings. DuoLingo Mobile Application usage was employed not only towards L2 students in general, but this study divides the students into two categories namely low achieveing students and high achieveing students. While on Sistem Pembelajaran Daring Indonesia Platform studies, this study provides supporting findings namely how it affects English learners especially on listening aspect.

CONCLUSIONS

The research findings have provided all of the answers of the research questions, making it possible to draw the conclusions. Conclusions in

this research are about the effect of DuoLingo Mobile Application and Sistem Pembelajaran Daring Indonesia Platform on high achieving students and low achieving students' English listening performance. DuoLingo Mobile Application does affect both high achieveing students and low achieveing students' listening performance in a positive way. Meanwhile, the same goes to Sistem Pembelajaran Daring Indonesia Platform usage. It was found that Sistem Pembelajaran Daring Indonesia Platform influences not only high achieveing students but also helps low achieveing students positively as well.

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