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Students' Perceptions and Effect of Using Google Voice Assistant to Improve Speaking Skills

Kadek Andre Darmawan

Universitas Pendidikan Ganesha

andre.darmawan@undiksha.ac.id

Abstract

Artificial Intelligence (AI) is a simulation of human intelligence that is modeled on machines and programmed to think like humans. With this AI, it must be utilized as best as possible in the world of education, of course in English. So, AI be used to teach English to students, especially in terms of English speaking skill. This study was conducted to gauge student response to using Google Voice Assistants (GVA) to improve their speaking skills. This study used explanatory sequential mixed methods. The research utilized post test and interview uses the RASE pedagogic theory. Participants included tenth grade students from SMA N 1 SERIRIT. Findings suggest that this application effectively boosts student self-confidence and improves their speaking skills.

Keywords: Speaking Skills, Google Voice Assistants, Artificial Intelligence, EFL Learning

INTRODUCTION

In the current global era, technology plays an important role in people's lives and to help students in various aspects of life. According to Dewi et al., (2021) technology has played as the key role in human life and education. Everything which is done by human is affected by technology. In Indonesia, the use of technology is still low. Mukhallafi (2020) stated teachers who use the technology facilities provided by schools is still low. This is due to teachers' lack of readiness in using technology so teachers are already familiar used to traditional or conventional teaching methods.

Artificial Intelligence (AI) is a simulation of human intelligence that is modeled on machines and programmed to think like humans. With this AI, it must be utilized as best as possible in the world of education, of course in English. So, AI be used to teach English to students, especially in terms of English speaking skill. According to Underwood (2017), AI has the potential to provide more motivating, opportunities for children to engage in spoken interaction in the target language in classroom.

One of the most used and very famous AI is Google Voice Assistant. This AI provides various kinds of information and is used as an assistant in terms of doing everything on the internet, one of which can be used to train students' speaking skills. This AI learning is an interesting and exciting design for students in English, especially when it comes to speaking English. AI technology is developing rapidly, AI is the right choice to train students' speaking skills. Han (2020) also stated that the AI chatbot effectively contributed to an improvement in speaking ability among EFL students.

Researchers found that there were several studies conducted to determine the effect of using AI, especially Google Assistant in learning activities. First, Hadi and Junor (2022)

conducted research to find out whether the use of AI Google Assistant can build or improve the speaking skills of EFL students. Furthermore, Chen et al (2020) investigated Google Assistant to find out the use and motivation of learners and students' perceptions of using Google Assistant to improve students' speaking and listening skills. Tai and Chen (2020) also investigated that Google Voice Assistant significantly promoted EFL Learners' in terms of enhanced communicative confidence and reduced speaking anxiety.

Based on the preliminary interview and observations that have been carried out at SMA N 1 Seririt, teachers use conventional learning methods and rarely utilize technology. The facilities provided by the school are qualified and the internet can be accessed by students easily. The researcher also observed that the teacher rarely use various media such as technology that could support learning. And students rarely speak in class during English teaching and learning activities.

Based on the previous study above, it can be concluded that the use of Google Voice Assistant learning activities can have a good impact on students. Therefore, it can be said that some researchers provide Google Assistant as a learning medium in English as a foreign language field. Due to the preliminary study, this research needs doing to determine the effect of Google Assistant on student speaking skills at SMA N 1 Seririt with the same theory but with different settings and method.

METHOD

The researcher employed a quasi-experimental non-equivalent control group design to examine the impact of utilizing Google Assistant in English as a Foreign Language (EFL) instruction on students' speaking abilities at SMA N 1 Seririt. The quantitative method involved administering a post-test to measure the effect. According to Cresswell (2014), quasi-experimental non-equivalent control group design is a research design used in education to study the effects of treatments when random assignment of participants to control and experimental groups is not feasible. In this design, participants are not randomly assigned to groups, and therefore, there may be pre-existing differences between the groups. The researcher used interviews with students to find out how Google Assistant affected their speaking skills for qualitative methods. Implementation of Google Voice Assistant on students' speaking skills was determined by using an experiment where two groups were determined: an experimental group which means they got treatment, and the other one is a control group which means a group that does not get treatment. For the qualitative method, the researcher transcribed the answer of the interview that has already been recorded, and from there; the researcher analyzed the data in terms of how the implementation of Google Assistant affects the students' speaking skills.

Subject

This research conducted at SMA N 1 Seririt with class X3 (Experimental Group) and X4 (Control Group) as subjects in this study with a total of 70 students. The data were collected through speaking skills tests, observation and interview. The students were given English learning using Google Voice Assistants application during learning process, subsequently the finding data will be analyzed through student responses using Google Voice Assistants in practice speaking.

Data Collection Methods

Speaking Test

Alessandri et al., (2017) states that a research design in which participants receive the same assessment method after receiving treatment or being exposed to a condition, with these measurements used to ascertain whether there are differences that might be caused by treatment.

Table 1 Blueprint of Rubric Speaking Test

Prompt			
Make A Dialogue			
Criteria	Scores	Weight	Indicators
Content	5	35%	The content is quite pertinent and precise
	4		Pertinent with significant mistakes
	3		Sufficient and pertinent information
	2		Lacks substantial and essential
	1		Insufficient or insignificant data
Pronunciation	5	25%	Nearly indistinguishable from proficient native speakers
	4		Proficient in the language, with a minor influence from their own language
	3		Satisfactory with discernible impact from the native language
	2		There are some faults and the text is challenging to comprehend
	1		Pronunciation is incomprehensible
Fluency	5	20%	Fluency is at a level comparable to that of academic native speakers
	4		Suitable for regular conversation, with mild language related problems
	3		Appropriate for specific circumstances, although hindered by linguistic constraints
	2		Insufficient self-assurance in engaging in social or informal dialogue.
	1		Incapable of sustaining basic dialogue.

Grammar	5	10%	Excellent, on par with proficient native speakers.
	4		Proficient, with infrequent mistakes.
	3		Satisfactory, demonstrating a reasonable level of structural accuracy with occasional errors.
	2		Moderate accuracy, with limited control.
	1		There are frequent inaccuracies, although part of the content can be understood.
Vocabulary	5	10%	Equivalent to the language proficiency of native speakers in an academic setting.
	4		Suitable for casual discussions.
	3		Adequate for particular discussions.
	2		Restricted lexicon, even in specific discussions.
	1		Extremely restricted and insufficient for fundamental circumstances.

(Heaton, 1988 ; Hughes, 2003; Brown, 2004)

Scores = *sub categories* x 4

Interview Guide

The interview guide is used for semi-structured interviews where the data depends on the answers of the interviewees. In this study, researchers used "Open-Ended" questions to find out how the application of Google Assistant affects their speaking skills. In this instrument, the researcher provides a blueprint for interview guidelines. Therefore, the researcher uses the RASE pedagogic theory from Churchill et al., (2013).

Table 2 Interview Guide

Dimensions	Indicator	Item	Question
Resources	Utilizing AI technology can serve as a valuable tool for students to achieve their learning goals and access educational content.	1	1
Activity	Utilizing AI technology can enhance students' autonomy in the learning process, fostering self-directed learning and so increasing the efficiency of language learning compared to traditional techniques.	2	1

Support	AI technology can assist pupils in overcoming problems and facilitate autonomous learning.	4, 5	2
Evaluation	AI technology can enhance students' abilities and understanding by providing feedback on their accomplishments.	3	1
5			

FINDINGS AND DISCUSSIONS

Findings

Post test

		Experimental Group	Control Group
N	Valid	35	35
	Missing	0	0
Mean		70.97	66.74
Median		72.00	68.00
Mode		72	68
Std. Deviation		7.902	8.665
Variance		62.440	75.079
Range		28	28
Minimum		56	52
Maximum		84	80

Based on the data obtained before shown that the experimental group speaking scored higher than the control group. The experimental group's mean score was 70.97, whereas the control group's mean score was 66.74. The experimental groups' median score was 72.00, whereas the control groups' median score was 68.00. The variance of the experimental groups was 62.440, whereas the variance of the control groups was 75.079. Furthermore, the experimental group's standard deviation was 7.902, whereas the control group was 8.665. The both groups had same range was 28.00. Meanwhile, the experimental group attained a score of 84.00, while the control group achieved a score of 80.00, ensuring maximal analysis. The minimum value for the experimental group was 56.00, whereas the control group had a minimum value of 52.00.

Interview

Based on the results of the interviews obtained, students tend to give positive responses regarding the use of GVA in practice speaking. To find out the use of GVA can be a learning resource for students, the students were asked whether GVA can be used as learning resources in English. Students said they agreed that using GVA could be used as a learning resource because GVA is easy to use. Several students claimed :

“Menurut saya aplikasi ini dapat memberikan materi Bahasa Inggris, seperti memberikan contoh narrative text” (S1)

Student 5 agreed and stated :

“Menurut saya dapat membantu pada saat bertanya materi dan langsung diberikan jawaban dari Google, kak” (S5)

Further, the researchers wanted to investigate and to support the finding of using GVA could make their learning activity more interesting and more effective. From the responses obtained, the students agreed that the use of GVA makes learning activity more interesting and more effective because the features that GVA has tend to be easy to use. As mentioned by Student 2,

“Saya setuju, karena saya tertarik belajar menggunakan teknologi seperti ini. Jadi menurut saya efektif karena saya rasa lebih percaya diri berbicara dengan Hp dibandingkan dengan teman berbicara Bahasa Inggris tu kebanyakan ketawa dan malu. kak” (S2)

Student 3 agreed and stated,

“Setuju karena tidak perlu mengetik dan menjadi hal yang menarik pada saat belajar. Mungkin aplikasi ini juga dapat lebih cepat memberikan jawaban ketika diberikan pertanyaan langsung oleh guru. kak” (S3)

Student 4 also agreed and stated,

“Setuju, Aplikasi ini gampang digunakan karena dengan bicara “Ok,Google”, aplikasinya itu langsung terbuka” (S4)

Furthermore, researchers continued to find out whether the use of GVA could support them in the learning process. The statements given by students show that they are greatly helped by GVA as a practical partner to train speaking when feel embarrassed to speak with real human or friends. This was delivered from all of the five student’s responses:

“Membantu, karena saya itu pemalu jika berbicara dengan teman apalagi menggunakan Bahasa Inggris. Jadi Google Voice Assistant ini membantu saya dalam melatih berbicara Bahasa Inggris” (S1)

“Sangat membantu sih bagi saya. Karena kan bicara dengan teman itu dibencadain responnya jadi susah untuk lancar dalam berbahasa Inggris ” (S2)

“Iya membantu, karena saya itu seperti berbicara dengan orang lain, kak” (S3)

“Membantu karena seperti teman bicara gitu bagi saya yang pemalu, aplikasi ini bikin saya percaya diri jika bicara dengan Bahasa Inggris, kak” (S4)

“Ya mungkin membantu sih, karena kan responnya itu cepet dan kalo nanya soal yang lain langsung dari informasi Google” (S5)

All student responses answered that GVA helps those who have shyness and makes them more confident. Responses from S1, S2, S3, and S4 explained that it helps, because talking to GVA is like talking to a native person as an English speaking partner. And S5 also

responded to help in terms of GVA's response to quickly answer the conversation from students. And when students ask about questions about English material, GVA is able to provide material directly from Google sources.

Henceforth, the researchers wanted to find out if GVA provided feedback to students. It cannot be used to evaluate of ability in speaking skills instead of giving feedback because this platform does not have common sense. Several students claimed :

“Menurut saya google voice assistant ini tidak memberikan komen seperti guru, jadi saya tidak tau apakah pengucapan saya aitu sudah benar apa tidak” (S1)

“Menurut saya respon dari Google Voice Assitant itu singkat dan tidak memberikan umpan balik seperti komen dari guru” (S2)

“Kalo dalam hal memberikan komen, saya tidak pernah dapat umpan balik seperti mengoreksi pengucapan saya, kak”(S4)

Based on this statement, it can be concluded that GVA can help students practice their speaking fluency for those who feel embarrassed to talk to real people. GVA can also help students in providing examples of relevant material through information from Google. However, the problem is that GVA does not provide feedback for evaluating students. GVA only responds based on voice commands but does not have common sense like humans to provide feedback. Even though it doesn't provide feedback, GVA is able to improve students' speaking fluency, become a conversation partner for shy students, and provide relevant English language material.

Discussions

Based on the data obtained before shown that the experimental group speaking scored higher than the control group. The mean score of the experimental group was 70.97, while the mean score of the control group was 66.74. The experimental groups' median score was 72.00, whereas the control groups' median score was 68.00. The variance of the experimental groups was 62.440, whereas the variance of the control groups was 75.079. Furthermore, the experimental group's standard deviation was 7.902, whereas the control group was 8.665. The both group had same range was 28.00. Meanwhile, the experimental group attained a score of 84.00, while the control group achieved a score of 80.00, ensuring maximal analysis. The minimum value for the experimental group was 56.00, whereas the control group had a minimum value of 52.00.

Besides descriptive analysis that already prove that the use of GVA gives significant effect toward students' speaking skill, this experimental study is also supported by the theoretical and empirical review. According to Hadi and Junor (2022), learning activities using Google Voice Assistant can foster students' speaking skills. GVA also was discovered to had a positive and significant influence students' pronunciation ability, Anggara (2019). According to such advantages, the research considers using the effect of GVA as a media in speaking skills.

While conducting research, researchers also observed student behavior when providing treatment. In the experimental group, the researcher realized that some students were unfamiliar with Google Voice Assistant, therefore they also seemed excited because GVA was a new tool for them. So before inviting students to use GVA, the researcher explained first about the application and its features. At the first meeting the researcher explained about GVA

and its features and practiced speaking with GVA according to the first material, namely greeting. In the second to fifth meetings, students are asked to continue practicing in class after explaining the material and trying to get to know its features better. From these meetings, researchers saw an improvement in students' reading skills. They also stated that the material they got at GVA was fast and relevant from Google. Activities that involve GVA in their learning process can help them to influence their speaking abilities. It can be seen that when researchers ask a few questions and invite students to talk, they have more confidence and fluency. The findings of descriptive and inferential statistical analyzes support these observations. Furthermore, the control group did not use any tools as learning materials during the learning process. The students in the control group were taught using traditional methods. In addition, researchers found that in the control group students could barely focus when they were told to practice speaking with their friends, they tended to practice for a few minutes and after that they started joking or talking about other things. When researchers ask questions and start to talk to them, they tend to find it difficult to answer questions and joke when answering.

The researcher also conducted an interview where the question was developed using RASE models. Therefore, the interview session with several students from experimental group. The result of the interview is that most of the students' state that they interest learning English with GVA especially practice speaking skill, the reason is because through GVA they can get a partner to practice their English speaking skills like talking to a real person. GVA was able to provide the material they requested and provided sources from Google. GVA also increases students' speaking fluency and confidence in students who have a shy nature to speak English with friends or real humans.

Multiple empirical researchs have been conducted to examine the impact of utilizing Google Voice Assistant on the speaking abilities of students. According to the first study, Tai and Chen, (2020) was conducted to develop adolescent EFL learners' willingness to communicate (WTC) and students' perceptions of science for EFL learning using Google Assistant. The results of this study show that Google Assistant significantly increases EFL students' WTC, increases students' confidence in communicating, and reduces students' speaking anxiety. Analysis of the interviews showed that the participants enjoyed talking with chat bots and playing games with Google Assistant. Chen et al., (2020) was conducted to investigate how L2 learners perceive the potential of Google Assistant with different proficiency levels. The results of interviews and surveys show that these students enjoy interacting with Google Assistant and consider Google Assistant an inspiring tool for learning English. Students found it less stressful to use GA for practicing English speaking and listening as compared to other in-class activities and speaking in front of their teachers and/or classmates.

Based on previous research, it can be concluded that GVA offers several benefits to students, specifically as a platform to influence students' speaking skills. The findings of this study also support the role of GVAs in terms of influencing students' speaking skills. This implies that GVA not only facilitates learning, but also has a significant impact in the development of students' speaking skills. Previous research has shown that supporting and reinforcing GVA has a major impact on students' speaking skills. This confirms that the integration of technology in education, such as GVA, can be an effective instrument in improving students' competence in speaking skills.

CONCLUSION

Based on the explanation above, their use of GVA based AI in tenth grade students' speaking skills at SMA N 1 SERIRIT had a significant effect. According to descriptive analysis, the mean score of the experimental group was higher than the control group. It can indicate that the students who are learning with GVA can get better scores rather than the students who do not get the treatment. To strengthen the statement, an interview with several students from the experimental group is being conducted. The researcher used semi-structured interviews where the RASE model was being used to develop the interview guide. After analyzing the data, it can be found that almost all of the students being interviewed state that the use of GVA can help them to improve their speaking skills by the Resource that provides them with source to affect their speaking skills, Activities in which they state that learning through GVA is interesting, in terms of Support which can make them confident in speaking English, and Evaluation which does not provide feedback for evaluating students. Therefore, it can be concluded that the use of GVA can make students confident in speaking in English, providing resources and also make them excited rather than the conventional learning process.

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