

A Narrative Study on Exploring Google Voice Assistant in EFL Classroom: Voice from Indonesian College Teacher

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ABSTRACT

In recent years, technology has played a crucial role in human life including education sector. The integration of artificial intelligence to the education sectors is an output of technology development. This study investigates the English foreign language college teachers' experience in implementing the artificial intelligence based digital assistant called Google Voice Assistant (GVA). GVA was one of the types of digital assistant that was provide and dominantly used in Indonesia. This study seeks to an exploring of how collage teacher integrating the Google Voice Assistant in English foreign language classroom, especially for university students. This narrative study employs a semi-structured technique as a tool for exploring teachers experience towards the integrating of Google Voice Assistant. One willingness participant from private university in Jember, Indonesia was purposely selected based on research's qualification and teacher availability that had experienced in implementing Google Voice Assistant in this area. The research findings showed the teacher had positive experience in the use of Google Voice Assistant that classify into five aspects. Comfortability, comprehension, usability, enjoyability, & worthwhileness. Although there some minor experience did appear in the aspect of usability and enjoyability, but in overall it can be conclude that Google Voice Assistant helps to facilitated teaching and learning language especially for English foreign language learners.

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Technology has unquestionably played a pivotal role in human life. Artificial intelligence (henceforth, AI), as one of the emerging products of the Industrial Revolution (IR) 4.0, has reshaped the way humans perceive the world, including in the education sector (Doucet, Evers, Guerra, Lopez, Soskil, & Timmers, 2018). AI has been operationally defined as “machines, computers, or computer systems that replicate cognitive functions traditionally concerning the human mind, such as learning and problem-solving.” (Russell & Norvig, 2010). Some prominent scholars (Kent, 2021) define it as a specific set of skills for computers that “performs cognitive tasks usually associated with human minds, particularly learning and problem-solving” (Baker & Smith, 2019).

The crucial role of the integration of Artificial Intelligence in Education (AIED) has been inevitable as well since it can potentially serve many learning opportunities such as simulating human intelligence to make many things including inference, judgement, or , even, prediction (Hwang, Xie, Wah, & Gasevic, 2020). More recently, a study by Kim, Lee, and Cho, (2021) highlighted that AI can promote teacher-student interaction and collaboration, maintain social relationship, and offer personalized instructions. This implies that the integration of this non-human agents into educational field can serve crucial role as tutors/teachers, personal assistants, advisors, as well as learning peers (Lee & Kim, 2020).

In the realm of English as a Foreign Language (EFL), the literature confirms that AI has offered many learning opportunities. For example (Kent 2020), “AI-based digital assistance may revolutionize and integrate” the beginner in language learning. Another research declares that Digital voice assistance supporting human-computer interaction is pedagogically beneficial in language learning activities (Gonulal, 2021). Not only revolutionizing and supporting the learner, but AI-Based digital assistance is also a “beneficial agent to improve their English and their discrete language skills” (Gonulal, 2021).

In an earlier study, Wrigglesworth (2019) had 51 first-year Korean top-ranked university students treated by KAKAO TALK as a facilitator in English reading and discussion classes. A researcher interested in how new technology can provide Mobile-Assisted Language Learning (MALL) opportunities has taken notice of these advancements (Kukulska-Hulme & Traxler, 2007). According to this study, students may participate effectively in self-directed Multimedia Messaging Systems (MMS) based communicative tasks. Demonstrate that participants felt more involved with the problems, better understood their classmates and their relationships, and could express themselves more freely in the MMS conversation than in class.

More recently, a quasi-experimental study (El Shazly, 2020) with 48 Egyptian undergraduate EFL students it investigated the effect of AI on English speaking anxiety and speaking English performance. This research reported that after eight weeks of interventions, AI chatbot integration in such a context could be considered an effective tool as it can offer learning flexibility interactive classroom and promote student-centered learning. However, no speech-related anxieties reduced after AI chatbot involvement, yet the interaction with AI chatbot was quite effectively used to increase oral communication.

More in exploratory qualitative study (Kent, 2021), by 12 native and non-native speaking instructors which was enrolled in Korean TESOL program. His research describes the potential and receptiveness of digital voice user interface in the Korean EFL teacher's perspective. The researcher was deciding the worth of pedagogical methods like interactional teaching by native and non-native speaking instructors. Main focus of this research was on potential of user interface by the instructor, and their receptiveness within contextually related to education. Based on the research's result that speaking instructor's perception were all agreed with the used of user interface in the classroom, although some minor differences appear on multitude ways of it use.

Further study, Sumakul, Hamid, and Sukyadi (2022) investigated four EFL universities teachers in Indonesia which had the experience of integrating AI in their teaching practices. The research concern was how AI affect in EFL teaching and learning, whether it beneficial or harmful from teachers perception. As a result of this study describe that the entire teacher's had positive perceptions. Related to the teacher's answers, it indicates that AI helpfully for teacher to teach and learners to learn. Moreover in integrating AI into EFL classroom there were expanded of teachers technological and pedagogical and student's levels as an output

This research's primary concern centered on the college teaching experience of using AI-based digital voice assistance and how the teacher integrated the AI to contextualize the Indonesian EFL classroom at the tertiary level. Google Voice Assistance is one of the AI-Based digital assistance products chosen as it is readily available and popular in Indonesia. However, many kinds of digital assistance besides Google Voice Assistance, called SIRI, ALEXA, and CORTANA, are inaccessible and unpopular in Indonesia. Then, this research considers using Google Voice Assistance as AI-based digital assistance for teaching EFL classrooms at the tertiary- level. However, there is paucity research exploring the efficacy of Google Voice Assistance integrated into Indonesian EFL domain at tertiary- level education portrayed from teachers' perspectives. This current study is therefore an effort to investigate those issues.

Teacher Professional Development

In Indonesia, the government regulates how well teachers can perform their responsibilities, function, and behave in the context of the classroom and society. This regulation is based on the country's national policy. The Indonesian legislation of teachers and lecturers No. 14 from the year 2005 mandates that instructors, who are also professional educators, have a primary responsibility to educate, teach, guide, direct, train, access, and evaluate students from early childhood education through secondary education. Besides to be more professional the teachers forced to be think critically. There will be need more time and long process to be critical thinker (Yunus, 2015). Meanwhile, Indonesian teachers frequently encountered difficulties doing their tasks. On the one hand, teachers must provide students with the necessary assistance so they can learn in the formal educational settings. They must put up a lot of effort, both personally and professionally (Kiilo & Kutsar, 2012). Functions, position, quality, and instructors' work mostly influence a teacher's professional experience (Richards & Schmidt, 2010).

Technology Mediated Instruction

Technology Mediated Instruction (TMI) provides additional instructional delivery methods and technologies compatible with those used in the academy. When used correctly, that ought to make learning and relationships between students and instructors easier. According to (Matthews et al., 1997), TMI should be seen as a different type of delivery mechanism and handled similarly. A suitable modality is sought after in successful teaching practice and needs to be considered by both the facilitator and the learner. Technology is not enough by itself. We should be aware of the potential educational tools that new technologies hold when put in the hands of skilled and trained faculty as they continue to overgrow. These are resources that could help us connect with students in different ways.

Technology Mediated Instruction in EFL Context

In recent years the term Technology Mediated Interaction has become increasingly popular in various ways, including in education. Some research found that Technology Mediated Instruction in the EFL context, for example, AI for foreign language learners, developed for education to affect students positively. (Shazly, 2021) Provide, "FL (Foreign Language) contexts should leverage manageable anxiety levels to motivate learners to expend the required effort." AI applications have a potential favorable impact on FL learning outcomes; thus, those in charge should integrate them astutely in FL classrooms to optimize learning gains.

Digital Voice Assistant

People all across the world are increasingly embracing Digital Voice Assistants (DVA) like Apple Siri, Amazon Alexa, Google's Google Voice Assistant, and other Digital Voice Assistants into their life Porcheron et al. (2018). Digital Voice Assistants are integrated artificial intelligence (AI) technology with speech capabilities. These programs "employ inputs like the user's voice and contextual information to help users by answering questions in natural language, providing recommendations, and taking actions" (Hauswald et al., 2015).

A Digital Voice Assistant (DVA) is described by Porcheron et al. (2018) as embodying the concept of a virtual servant that helps you "get things done". The first popular commercial DVAs were found on smartphones, such as Siri and Google Voice Assistant. From being application programs, the assistants had developed into corporeal beings. These tangible objects have significantly risen in popularity in recent years (Canalys, 2019). The most frequent uses of these devices are for planning, information search, and control of smart home accessories, as well as for leisure (Kinsella, 2019).

Google Voice Assistance

Google Voice Assistance is a user interface or digital assistant developed by a technology company called Google. Related to this, Google Voice Assistance is widely used by many people worldwide because of its benefits that are very helpful for daily activities such as making schedules and reminding them Lakoma and Parrish, (2021). In addition, Google Voice Assistants are currently used as facilities for learning English. Communicating with a machine supports the student's confidence without having to be embarrassed because of mispronunciation. Therefore, it is very effective to help students learn foreign languages, especially English.

The Implementation of Google Voice Assistance

In exploring the implementation of Google Voice Assistant in the EFL context, this study is premised on the ideas of Kent (2021) regarding the Potential and Receptiveness of using the user interface. In the growth of the technology era, Digital assistants are believed to be essential in facilitating foreign language learning. Through this lens, the researchers used Google Voice Assistant for the target of a digital personal assistant as it was readily available in the majority. However, there is a limited exploration of utilizing this kind of device in Indonesian EFL circles, and the use of Google Voice Assistant is interesting to discuss. Therefore, the focus of this development rested on language training aspects (following Moussalli & Cardoso, 2016, 2017) asking for answers to a range of preliminary inquiries, spellings, synonyms, antonyms, pronunciations, vocabulary delineations, harkening and speaking exertion, stories, music, and games). Thereby, the use of google assistant conjures the addicts on use cases implemented in the classroom.

Several aspects are used and described as a limitation to analyzing experiences in implanting the google voice assistant explored in this research. As is the case in Kent's (2021) study, Comfortability, Comprehension, Usability, Enjoyability, and Worthwhileness were five aspects to focus on. This aspect is purposed for describing and assessing whether the finding of this research is feasible to be tried experimentally in the classroom.

METHOD

This research used a qualitative research design. The method encouraged the researcher to investigate examples of the most gainful university in Jember that had rarely been unstudied previously. The technique also explains the social and cultural realities that underpin the use of cutting-edge technology in educational practice. The qualitative component of the study was distinguished by data in the form of words and narratives recounted by lecturers about their actual field experiences.

In attempting to obtain deep and rich data, this research employs a narrative approach (Clandinin & Caine, 2008). A significant proportion of information was collected based on the participants' stories of their experience teaching English. The researcher used a semi-structured interview where the researcher does not strictly adhere to a formally restricted list of questions. Instead of a straightforward question and answer format, they asked more open-ended questions, allowing for a discussion with the interviewee. In interviews, the researcher was adapted six items of semi-structured questions (Kent, 2021). In particular, the researcher used a result from interview data from participants to give a thorough knowledge of the phenomena. It was a strategy seen to be a suitable way to facilitate data analysis.

Research Context and Participant

This research had only one willing participant. Named Suhu (aged 35), Suhu was a lecturer in an EFL program at a private University in Jember, East Java. He had been teaching for almost seven years as a permanent teacher at that university. Suhu also teaches at various levels in the range of 15- 30 students per group. Coincidentally, Suhu had understood and was skilled with a digital voice assistant in this context Google Voice Assistant. Moreover, he had experience in implementing Google Voice Assistant to facilitate teaching English.

For the sake of convenience, Suhu was engaged by the familiar technology or device during the research interview. In this study the researcher consented to provide written informed permission and was advised that their replies would be recorded and kept anonymously in the cloud for future access by the researcher.

Data Collection

This study uses coverage of qualitative data methods. In qualitative research, introductory data collection is an interview (Creswell, 2012). A semi-structured interview was designed to gather data on participants' experiences while implementing Google Assistance for teaching English. As Jovchelovith and Bauer (2006) suggested, an interview is a technique chosen to get into teachers' occurrences through their stories. The researcher interviewed one collage teacher through stories of his experiences. Other collection techniques also used to enrich data quality are documentation and audio recording, including the lecturers' teaching techniques.

Data Analysis

The researcher performed thematic analysis Clarke and Braun (2016), is a method for identifying, analyzing, and interpreting patterns of substance ('themes') within qualitative data. Technically, the researcher had an overview of verification data from audio recordings to compile a global understanding (Yunus and Ubaidillah, 2021). First, the interview data, an audio record, were analyzed. The data analysis comprises transcribing. The analysis processes are then validated using the data source, data verification technique, and searching for disconfirming evidence. Afterwards, the researcher provides the participant with a transcript of their talk to confirm its authenticity and accuracy. Finally, the researchers identified occurring themes suitable to the study framework.

Trustworthiness

In order to evaluate the validity of the instrument, the researcher verified the responses from the recorded findings during the interview, where it is essential to ensure that the answers are truthful (Elfiyanto, 2019). The researcher used triangulation to evaluate the reliability of the interview responses, which involved returning the interview transcripts to the participants so they may revise their responses. Participants in the interview were permitted to modify their answers at any time. When numerous independent sources corroborate findings, they gain credibility. Interview transcripts were given back to participants to collect correct data.

Further, the researcher uses peer debriefing (Janesick, 2007). A peer can also serve as a critical investigator or auditor. This peer reads the data and the final report carefully. When it has overemphasized or underemphasized a point missed a competing plausible hypothesis or both. Peers need to appraise the researcher to shape an excellent Narrative inquiry. The outcomes of the data will finally reveal in the following chapter.

FINDINGS

In this section, present the extract of the participant's responses on each item of interview session after utilizing data coding analysis. This extraction was grounded on this following aspects (1) *Comfortability*, (2) *Comprehension*, (3) *Usability*, (4) *Enjoyability*, and (5) *Worthwileness*.

Comfortability

Integrating Google Voice Assistant into his EFL classroom left a favorable impression on the aspect of comfortability. Suhu narrated himself as an EFL teacher who felt that it was a tremendously impressive experience when using this Google Voice Assistant. With this feeling, it can potentially increase his propensity to engage with this device in a more interactive and active manner. He demonstrated that Google Assistant suited his duty as educators for serving many interesting features to assist him in arranging the teaching-learning activities. Suhu shared how he experienced this exciting felling in this following excerpt.

Excerpt 1

"..., very suitable for me as an educator because it provides a variety of features that make my job easier."

Moreover, Suhu acknowledged that Google Assistant was highly suitable for EFL teaching-learning, for beginners in particular, as it can promote English vocabulary acquisition. For instance, this app can easily facilitate learners to know how to spell the words correctly. Excerpt 2, perfectly illustrate his feelings on the efficacy of Google Assistant in facilitating learners' vocabulary learning.

Excerpt 2

"This app is perfect for beginners who may not know the spelling of the word they want to search for."

Comprehension

The second aspect is comprehension. Suhu confessed that Google Voice Assistant can recognize the words or sentences he conveyed and was able to provide the appropriate responses for his voice commands. Therefore not surprisingly, he felt that he made a conversation with the real person. In fact, Suhu considered this app as like his personal assistant, as illustrated in this following excerpt.

Excerpt 3

"I'm like chatting with a real person, very natural. This makes it feel like I have a personal assistant and a chat partner"

Besides, the participant argued that, compared to other digital assistant, Google Voice Assistant is still the greatest digital assistant. He shared: *"It's not the most useful, but when compared to other applications, the application is indeed superior"*.

Usability

Google Voice Assistant is often to use by Suhu in support learning activities. Beside of easy to talk to, Google Voice Assistance is also very helpful when it asked to find valid data or information related to the necessary materials. All this is done only with voice command, very easy to use as told by the respondent.

Excerpt 4

"uhm, a lot of things. For example, I use this application to find valid information related to the materials I am going to convey"

Moreover, when the use of Google Voice Assistant intensively has an impact on learners significantly. Suhu narrates that it deepens the student's motivation and ability to use google assistant.

Excerpt 5

"if they think positively towards the integration of the use of this application, then they will they will use it more often and in the end I believe it will affect their learning outcomes significantly"

In addition, access to Google Voice Assistant that could deliver a communicative or task-based language-teaching focus was favored by teacher, as was the interactive nature involved with obtaining access to such content when using the device for multi skill specially speaking.

Excerpt 6

"Actually, there are many skills that can be improved. However, the most important thing is speaking including fluency and pronunciation".

Enjoyability

Suhu felt that since accessing the device is quite natural, it may perhaps also be more enjoyable for students to consistently use. Voice interaction was also seen as perfect for when teachers have their hands full. In other words, teacher felt the Google Voice Assistant was capable of being adaptive, both for teacher use and for students, and capable of being relied upon for ice breaking activities to open the classroom session.

Excerpt 8

"I can also use this application for ice-breaking activities at the beginning of learning, or even during the provision of formative assessment."

However, a serious challenge was emerged as well. He stated that the internet connectivity and latest version of device were a major impediment to access this app. This experience will be described in excerpt 9.

Excerpt 9

"In my opinion, the most important thing is related to internet connectivity; often we experience disconnections so that the system becomes less than optimal. In addition, many of our students have outdated devices, with an old operating system and low storage capacity."

Worthwhileness

Although the Google Voice Assistant can be accessed via smartphones based android or ios device, it suggested this as an option. The setting of Google Voice Assistant used was reserved for the classroom. Overall though, its use was considered more inclined to see the device prove worthwhile for use only during class sessions. This is likely due to Suhu in considering the device's main strengths for language teaching as more gainfully.

Excerpt 10

"Is for myself, and as well my students, both in and out of the classroom."

Excerpt 11

"Not everything can improve. Everything also depends on their willingness to use this application. That is, if they think positively towards the integration of the use of this application, then they will they will use it more often and in the end I believe it will affect their learning outcomes significantly."

DISCUSSION

The current study investigated college teacher's experiences about the integration of Google Voice Assistant in his classroom. The research found that participant demonstrated comfortable experience in integrating this application. Moreover, it could extend their potential enthusiasm to interact with the device and keep teaching using it. This finding aligns with El Shazly (2020) claiming that the use of AI devices was very comfy in the classroom as it can ease the human activities. In other research, Tai and Chen (2020) found that the participants experienced comfortable to interact with, and less nervous about making a mistake. One recent literature reported that Google Voice Assistant could create a comfortable and pleasant language learning environment (Chen et al., 2020).

Another finding reported in the aspects of comprehension that in understanding a sentence or word context, Google Voice Assistance can understand and respond as intended. The participant said that he had personal assistant while interact with the google assistant it felt natural, and the Google Voice Assistant gave a different respond to the participant mean, when he had missed spell. The Google Voice Assistant had contributed it functional to the participant in corrected his spells. This finding is consistent with Chen at al. (2020) personal assistant beneficially increase a reading and speaking comprehension. Tai (2020) with the immediate feedback, the participant were encouraged to self- correct, which provided the opportunities for repeat practice their speaking comprehension.

In the aspect of usability the participant declared that Google Voice Assistant was frequently used in support learning activities. Beside of easy to talk to, Google Voice Assistance is also very helpful when it asked to find a valid data or information related to the necessary materials. All this is done only with voice command. Congruent with Moussalli and Cardoso (2019), to complete the necessary materials and tasks, digital voice assistants integrate user input, context awareness, and the capacity to acquire information from a variety of internet sources. Kent (2020), Google Voice Assistant also used to consider beneficial in provide an answer of question or material that teacher might not be ready to answered and yet prepared.

Since the participant felt that accessing the device is quite natural, it perhaps also is more enjoyable for students to consistently use. Voice interaction was capable of being adaptive, both for teacher use and for students, and capable of being relied upon for ice breaking activities to open the classroom session. Consonant with Sumakul and Sukyadi (2022), the students were felt so happy while they were worked with the device. Another finding, that these learners were felt enjoyed while interacting with Google Voice Assistant and considered Google Voice Assistant as an inspiring tool to learned English Chen et al, (2020).

Revers to the statement of enjoyable accessing Google Voice Assistant, contrary factors also appear in the used of Google Voice Assistant which could only performed by internet connection, furthermore latest devices version is sustain to the best optimization of user experience. These issues might be the barriers of the Google Voice Assistant used.

In the aspect of worthwhileness, the participant more often asked his students to interact and communicate with Google Voice Assistant in the classroom. Not so often, but the teacher frequently uses it. The participant allowed his student to use Google Voice Assistant anytime outside the class as students liked. He believes there be significant learning outcomes for students who think positively and consistently using the Google Voice Assistant. The participant also narrated that not everything can improve by the device. It depends on the student's willingness to use it. These worthwhileness aspects mirrored in a study by Kent (2021).

CONCLUSION

This thesis writes about the scarcity of teachers experienced in integrating Google Voice Assistant to facilitate EFL learners in Indonesia. Nowadays, voice-driven with artificial intelligence has begun to change the way of human life. Often, people have more interactions, such as texting or communicating with the device, rather than human-to-human interaction. Therefore, the researcher utilizes this opportunity, the college teacher affording his students to make Artificial Intelligence-based Google Voice Assistant stand as a facilitator in their learning language process as found in previous literature (El Shazly, 2020; Kent, 2021; Sumakul, 2022; Wringgelswoth, 2019). Consequently, this research validates that the teacher had a positive experience using Google Voice Assistant. Still, some minor aspects appear (e.g., can be used only internet connection available, and best performing when supported by the latest device).

Based on the teacher's experienced, he narrated that Google Voice Assistant was comfortable to use. It also comprehends the users' voices. Besides, Google voice Assistant is often used to find a reputable source of information for the user to fill the teaching and learning needs. In the classroom site, the teacher consistently used the device to gain better practice, and the students always felt happy when they interacted with that. Since Google Voice Assistant could only work correctly when there was an internet connection and supported by the latest device, the teacher needs to prepare and double-check before he starts teaching.

Based on the findings, this research proposes that future studies may investigate the effect of implementing Google Voice Assistant in teaching English foreign language learners, using an experimental approach to evaluate the significant learning. There may be a broader impact of implementing Google Voice Assistant in two ways. Firstly, it might be beneficial to facilitate the students in learning a foreign language if there is consistency and positive thinking towards using Google Voice Assistant. Secondly, as an opposite, it could be harmful to the student if there is no controlling system in using the device, and they tend to only use it for playing games.

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