

EXPLORING THE APPLICATION OF GENERATIVE ARTIFICIAL INTELLIGENCE (GEN-AI) AT EFL PRIMARY CLASSROOM

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Abstract: Generative Artificial Intelligence is a human made system which involves a computerize system, information and database. Generative AI can be in form of machine learning or other tools that able to create authentic text, audio, code, images, simulation and video content. The use of generative AI (genAI) in language learning is increasing during or post pandemic of Covid-19. Especially in EFL primary learners, generative AI becoming a new trend that help teachers and students more active in learning. This study is aimed to find out what type of generative AI used by the EFL primary teachers and what are their perspectives on the generative AI. Through the case study on 40 English primary teachers in Bali, it is found that 9 out of 40 teachers were using generative AI such as text content creation, image creation and sound creation in their English class. The 31 teachers did not apply the generative AI in their class; they are more familiar with Microsoft office and Canva. Regarding to the teachers' perception of the teachers; they have a positive believe on generative AI is helpful and make the class more interactive and easier to use.

Keywords: EFL primary class, generative AI, teachers' perspective

INTRODUCTION

The use of generative artificial intelligence nowadays is increasing rapidly. Generative AI is applied in every sector of human life as it helps people organize or create something. It involves a big database and an algorithm that can produce text, audio, code, images, simulations, or video content. The scope of generative AI involves advanced computer programming with access to big data; therefore, it can predict or generate sequences of words into high-quality human-like content; in line with it, Liliana (2023) described that generative AI is in its infancy stage and is still limited to replicate the subset of intelligence and capabilities that represent human beings. According to the application, Epstein (2023) described that generative AI tools can produce high-quality artistic media, potentially altering creative processes and reimagining society's sectors. Brynjolfsson (2023) found that generative AI-based conversational assistants increase productivity by 14 percent, particularly benefiting novice and low-skilled workers, while improving customer sentiment, reducing managerial intervention, and increasing employee retention. Abunasser (2023) found that AI holds immense potential in enhancing learning efficiency, providing customized educational support and automating essential activities.

Related with the potential of AI to learners, in the other side, Achar (2024) stated that generative AI is helping teachers focus on teaching by allowing students to work on far more ambitious projects. Further, UNESCO (2024) stated that artificial intelligence tools open new horizon in education; hence, we need to take an action to ensure we integrate them into learning systems on our terms. Therefore, as the implementation of generative AI in every segment of environment; the existence of expert professionals, teachers, and assessment specialists to give input is highly needed.

In line with language teaching and learning, generative AI becomes an invaluable tool that supports teachers and learners. Regarding to the idea of helping teachers, generative artificial intelligence able to prepare a lesson, Baidoo-Anu and Ansah (2023) showed a positive belief that generative AI will help in developing sources that can enhance language teaching and learning. For learners, generative AI is able to facilitate them with personal learning experiences, give real-time interactive practice and feedback while learning, learn analytically on learners performance and behavior, and provide a virtual and augmented reality to increase immersive and interactive learning experiences. With the application of generative AI in assessment, by using specific data, teachers can provide real-time assessment to the learners and give feedback at the same time. In Indonesian context, the application of generative AI in language learning is increasing after the post pandemic of Covid-19. Jannah (2020) describe that generative AI is suitable to be used in school; therefore, school principals is suggested to adopt generative AI in their school. Tuhuteru et.al. (2023) stated that generative AI is improved rapidly and showed high potential in teaching and learning process.

In addition, Dai, et.al. (2023) found that generative AI can create adaptive learning that suitable to the curriculum. In Bali, the development of generative AI in teaching and learning process is described by Windiarti, et.al.(2023); generative AI enhance learning experience and more engaging to the students. Furthermore, generative AI increased the interaction between the students and teacher during the learning session. However, it also found issues on privacy and originality of the students' work. As the benefit and several issues on the development of generative AI on teaching and learning, this study is aimed on exploring the types of generative AI used by English teachers in EFL primary class, This study is highly needed as there is no study yet explored on the application of generative AI in EFL young learners classroom; as it is found a data gap on reviewing the previous research which some of the research focused on higher education. In addition, through case study on several schools and questionnaire, this study helped to map the types of generative AI used by the teachers and what is the purpose of implementing generative AI. Further, the findings of this study can be used as a reference to teachers to select the generative AI to bring to their EFL young learners classroom.

THEORETICAL FRAMEWORK

1. Generative Artificial Intelligence

Generative Artificial Intelligence (GenAI) is a human made system which applied vast quantities of information and powerful machine learning model in order to create authentic content (text, audio, code, images, simulation and video). The scope of generative AI involved advanced computer programming with access to big data; therefore, it can predict or generate sequenced of word into high quality human like content. Tuhuru et.al.(2023) stated that GenAI has a high potential as an innovation and tools to improve the learning atmosphere. However, Cambridge (2023) highlighted that GenAI is in infancy level which is still limited to replicate the subset of intelligence and capabilities that represents human beings. Therefore, the existence of expert professionals, teacher, assesment specialist to give input is highly needed.

2. The types of generative Artificial Intelligence

GenAI is the term for type of artificial intelligence that can produce fresh material or data that is comparable to the training data. According to Deakin University and Galaczi (2023), there are six types of generative AI such as (1) Text content creation; it entails reading a lot of content from books, journals, and websites, then analyzing the text to look for relationships and patterns in the way people speak. Essays, blogs, news stories, screenplays, introspective comments, and even poems can be produced using it; for example ChatGPT and Perplexity AI. (2) Image content creation; analysis of image datasets with captions or text descriptions. Thus, if he knows what two different concepts are, such as a cat and roller skates, he can combine these concepts when asked to create a picture of a cat wearing roller skates; for example, Dall.E 2, Midjourney and Stable Diffusion. (3) Sound content creation; analyze music tracks and metadata (artist name, album name, genre, song year, related playlists) to identify patterns and characteristics of certain music genres; for example, AIVA, Soundful and Murf.ai. (4) Coding creation; knows how to find common patterns, practices and structures in programming languages; for example, ChatGPT, CodeT5 and Tabnine. (5) Video creation; Creating a video usually involves the use of audio, image and text elements; for example, Gen-1 Runway and Invideo. (6) Research discovery and explanation generation; can automate parts of the research process and facilitate the interpretation of long complex texts, for example Elicit, Scite and Raxter.

3. The Principles of using genAI to Support Language Teaching and Learning

GenAI has a high potential as a tools to help the process of learning. In order to develop it, there are several considerations that manage the opportunities and risks in emerging technology into the teaching and learning. Galaczi (2023) describes seven key principles on using genAI into English language learning and assessment domain. The seven principles are (a) Be clear and transparent; understand the internal and external role of AI and able to manage the risk. (b) Human input; human input can be minimal or extensive according to the learning process (c) Consolidate rather than replace; the role of educator is still important during the learning. (d) Quality, diversity and equity; those things should be maintained during the learning. (e) Quality and scope; maintain the learning quality and collaborate with technology. (f) Privacy and data; protect the teachers and students privacy and personal data. (g) clear and ethical guidelines.

METHOD

This study is using descriptive qualitative approach. It is conducted in Kuta district by involving 40 English teachers in EFL primary level (SD). The teachers are consisted of 15 male and 25 female from 22 both public and private primary schools in Kuta district. Document study and observation is used to gather data in order to create a description about the types of generative AI used. The document study is conducted through observing teachers' lesson plan, handout and learning material used. Survey and observation is done by observing the teaching and learning process and recording these of generative AI in the classroom. In addition, teachers' perception on generative AI is collected by using interview. The interview question is exploring the teacher's perception on the generative AI benefit; the ease of generative AI; security and risk on generative AI and the interest in using generative AI. There are 10 perspective teachers from ten different schools were involved. Those data collections were conducted during October 2023 to March 2024. The data is analyzed by using three phases data analysis by Miles and Huberman (1994) such as data selection, classification and

conclusion. The data selection is done by sorting the relevant data on generative AI types and teachers' perception on generative AI from transcribed interview, observation and document study. Further, the data were classified according to the types of generative AI and teachers' perception on it; the conclusion is formulated after the data were classified.

FINDING

a. Types of Generative AI used in EFL Primary Class

The use of generative AI in EFL primary school at Kuta district is not applied regularly. Regarding to the observation on lesson plan; it is found that there are nine teachers applied the generative AI during the English classes; 3 teachers from public schools and 6 teachers from private schools. There are 31 teachers did not apply generative AI in their English class. From the nine teachers who applied generative AI in class, it is found that there are three major types of genAI used; they are (1) text content creation (ChatGPT) used by all the teachers, (2) image content creation (Stable Diffusion) and (3) sound content creation (AIVA) are used by seven teachers. Murf.ai, Dall E 2 and Invideo are used by two teachers; Soundful is used by one teacher. Midjourney, Raxter and Scite are not used. In addition, regarding to the observation during the teaching and learning process in class, there are seven teachers applied the generative AI in their learning media; and there is one teacher applied as a learning reflection and there is one teacher applied as assessment platform. The result is presented as the table below:

Table 1 Types of Generative AI Used by Teachers in EFL Primary Class in Kuta

Types of genAI	Percentage	Types of genAI	Percentage
ChatGPT	100%	Dall.E 2	22%
AIVA,	77%	Midjourney	-
Murf.ai.	22%	Invideo	22%
Soundful	11%	Raxter	-
Stable Diffusion.	77%	Scite	-

According to the interview on the application of the generative AI, it is found that ChatGPT is used to make short functional text for reading activities, for example to a short story, vocabulary list; moreover, the teachers also used this AI for making a lesson plan. Stable Diffusion is used to create dynamic image that inserted in teacher's power point which can interact with students while speaking class; in addition, it is also used to create image for certain topic that used in listening activities. AIVA is used to make a listening audio that teachers prepare the text and change their voice to native speaker look alike. Murf.ai is used by the teachers in order to change the teachers sound to various accents especially in introducing how to pronounce new vocabulary in reading or speaking activities. The same with Satble Diffusion, several respondent preferred to use Dall E 2 to create image that used to provided clearer image about the vocabulary taught in the class. To create video that related to the material that will be taught, Invideo and Soundful is chosen as those generative AI can provide more option for video and back sound for video learning media.

b. Teachers' Perception on Generative AI

In line with the teachers' perception, after transcribed the interview and sort the data regarding the classification on perception on benefit, ease, security, risk and interest; the result shows that the perception on benefit of the use of generative AI in EFL primary level are (1) generative AI able to improve the learning quality by providing interactive class, (2) improving students achievement on learning and it is useful for personal and daily use in learning English. The perception on ease it is found that by applying generative AI, (1) it helps the teachers to prepare the learning media and learning material, (2) easier way for the teachers to get learning resources and (3) saving time in creating new learning media. Regarding to perception on security and risk of generative AI are found that (1) the concerning of personal data of the teacher and students, (2) the attack of the virus and malware and (3) the ethic in applied the generative AI result as an individual man-made product. The interest on using generative AI is found have quite high interest; it is shown by the respondents' answers that they will learn more how to use the generative AI in their English class. In addition, the teachers also argue that they will invite their colleague to use generative AI during the English class.

DISCUSSION

The application of generative AI for EFL primary level is not regularly used by the teachers. It is shown by the small number of teachers that applied the generative AI in their teaching and learning process. Regarding to the document study and observation, it is found that 9 out of 40 teachers applied the generative AI. The types of generative AI use were ChatGPT, Stable Divison, AIVA, Murf.ai, soundful, Dall E 2 and Invideo. According to the class observation, the application of the generative AI is integrated as power point game for reading and listening activities; for speaking the sound changing is used to introduce new vocabulary especially on the pronunciation. In contrast, there is no generative AI application on writing activities; the teachers still use dicatation and write manually on the book.

The application of generative AI on assessment, the teacher created a quiz by using Invideo, Soundful and Stable division; those AIs used to provide more realistic assessment material for the students. The use of generative AI as feedback, teachers use ChatGPT voice to the students in order they can get feedback after learning some vocabulary in class. Further, related to the document observed, it is found that another application of generative AI in creating interactive video about the topic of material; for example wild animals, food and daily activities. The use of sound changing like Soundful and Murf.ai also mentioned in the lesson plan observed. To sum up, generative AI is dominantly use in planning stages; it is reflected on generative AI is used to make learning materials and teaching media; in addition, the use of AI on learning process is integrated with the teaching media and several generative AI like ChatGPT is used during the assessment.

According to the interview, the reason of implementing generative AI is found that genAI is easy to use, easy to integrate in learning media, cheap, do not need to spend a lot of time and give a new experience in learning English in the class. In addition, teachers observed also have an interest in integrating technology in their English class as one of the 21st century skills; creating a new learning experience in reading, listening, speaking activities. However, they have an issue on security and risk on using the generative AI for primary level; the issue on data privacy as the AI can record the voice or image and the issue on virus or malware from the use of the AI to the teacher's devices or school facilities. Therefore, it can be concluded that teachers' have a positive perception on generative AI as it makes teachers easier and do not waste time too much to prepare learning materials, learning media, assessment or feedback to the students; despite the issues arise on the data privacy and malware, generative AI can give new learning experience in English class.

Regarding to the result of the study described above, it shows a contrast on the number of teachers applied generative Artificial Intelligence in their EFL class. There are only 9 teachers from 40 teachers observed applied generative AI in their class; in addition, all the 9 teachers were from private school. There is none from public school applied generative AI both in document and during the teaching and learning. However, they have a positive perception on generative AI can help the learning process become more interactive and accommodate the diversity of students' learning styles. The contradictive findings are implied that generative AI on EFL young learners learning does not explored more by the teachers. As some previous studies showed that generative AI is helpful in EFL class both for teacher and students; the teachers believed that the method, approach and learning media that they used are still relevant with the development of EFL class nowadays. Therefore, the learning experience provided by the teachers is in stagnancy. It is also supported by the survey that teachers take an important role during the learning process in class. Further, the lack of facilities in certain schools also influenced the choice neglecting the generative AI application. In addition, the teachers surveyed also showed that English is not a main subject for primary level; therefore, they do not put extra effort in designing their classroom.

CONCLUSION

The application of generative AI in EFL primary school is not regularly used. There are 9 from 40 teachers observed applied the generative AI in their English class. The types of generative Artificial Intelligence used in primary teachers is Kuta district is dominated with (1) text content creation such as ChatGPT; (2) image content creation such as Stable Diffusion and Dall.E 2, (3) audio creation such as AIVA and Soundful. The application of those generative AI is dominantly found in planning stage which teachers created the learning media or learning materials before presented in the class. In addition, it is also found that the generative AI is used on assessment and giving feedback to the students. However, as the small number of teachers that applied genAI in EFL class in primary level, the teachers have positive perception on application of generative AI. Generative AI used as a helping tool to make the teaching and learning becoming more interactive and engaging. It makes the teacher can prepare learning materials or media effectively; hence, the awareness on data privacy and malware spread become the issue raised on generative AI application. As this study is limited on exploring the type of generative AI and teachers' perception; the further study is suggested to find out the impact of the generative AI in EFL class as primary level and the students' belief after experiencing the integration of AI in their class.

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