

Artificial Intelligence in EFL Classrooms: Friend or Foe?

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Abstract

The disruptive impacts of Artificial Intelligence (AI) are currently affecting various aspects of society, including education. Despite some doubts and fears, many studies suggest that AI could offer advantages to education, and AI-based applications have been developed for teaching and learning, and English as a Foreign Language (EFL) classrooms in particular. One way to understand whether AI could be harmful or beneficial to EFL teaching and learning is to see from the teachers' perceptions. Hence, this study investigated how teachers perceive the use of AI in their EFL classrooms. The data was collected through interviews with four EFL teachers in a university in Indonesia who have had the experience of integrating AI in their teaching practices. The results show that all teachers had positive perceptions towards the use of AI in their classrooms. The teachers agreed that AI could help teachers teach and students learn. Moreover, the interview data also indicates that students' motivational levels and teachers' technological and pedagogical competence should be put into consideration when integrating AI into EFL classrooms.

Introduction

Artificial Intelligence (AI) and its automation feature could be the next big thing in education. Advancements in technology have created new challenges and demands for both teachers and learners. We have not even completed the discussions on the impact of Internet and Communication Technology (ICT) in our classrooms, and now we need to be ready to leap forward with AI. In coping with the disruptive effects of AI in education, Sumakul (2019) elaborates that there are specific skills teachers need to master. AI provides teachers with new things that could affect existing classroom practices. This might apply in all subject areas, including English as a Foreign Language (EFL).

Regarding EFL classrooms, recent developments in AI technology indicate that EFL teachers' roles are also being disrupted. There are technologies that could perform tasks usually done by teachers. For example, there are AI-powered applications, or apps, that could provide grammatical feedback on students' writing without the help of a teacher. The feedback is accompanied with thorough but brief explanations and with examples; and this could be one way for learners to learn grammar in use, in context, and in a personalised manner. In addition to grammar, similar apps are also available for other EFL areas, such as speaking, writing, and vocabulary learning. Moreover, these apps are also available in mobile device versions, which makes the learning more accessible and convenient for the learners (Stockwell, 2016) and provide authentic learning situations and in self-regulation modes (Persson & Nouri, 2018). From this perspective, AI could be seen as an instrumental companion for not only the learners but also the teachers, because to provide similar exhaustive but personalised feedback to every learner would be a gruelling task for a teacher. On the other hand, however, it seems that AI is taking over the roles of the teachers. AI is offering personalized learning and this could indicate that students can learn without the presence of a human teacher. This phenomenon could lead to the following question: "Is AI a friend or a foe?" One way to provide the answer to the question is to see from how the teachers perceive this matter. Teachers' perceptions are one crucial aspect to consider when integrating technology into education as they could affect the quality of students' learning outcomes (Cope & Ward, 2002; Ding et al., 2019; Ertmer, 2005; Ottenbreit-Leftwich et al., 2018).

As AI technologies have started to invade EFL classrooms, they show promise as helpful companions for both learners and teachers but at the same time pose a threat to teachers' jobs, and teachers' perceptions are important, this study wanted to see how teachers perceive this technology integration into their classrooms. Moreover, this study would also investigate the pedagogical aspects to consider when integrating AI in their teaching. In other words, this study attempted to answer the following research questions: (1) How do EFL teachers perceive the use of AI technology in their classrooms? (2) What are the pedagogical aspects teachers need to consider when incorporating AI technology in their classrooms?

Literature Review

Artificial Intelligence

The term Artificial Intelligence (AI) was firstly coined by John McCarthy, considered by many as the father of AI, in 1955 when he and his colleagues wrote a proposal for the 1956 Dartmouth Summer Research Project on Artificial Intelligence. In the proposal, they introduced a description of AI as machines that "... use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves" (McCarthy et al., 2006, p. 12). Since then, AI as a branch of computer science started to develop. In its course of history, the studies and developments of AI diverged, where the discussions and contributions came from researchers and engineers from different fields, not only computer science but also anthropology, biology, philosophy, psychology, and linguistics (Luckin et al., 2016). This is one of the reasons why it is difficult to find a single definition of AI as different authors proposed their own versions. In general, the works on AI are about making intelligent machines (Nilsson, 2011), and as described in many other suggested definitions (e.g., Kurzweil, 1990; Luckin et al., 2016; Rich, 1983; Stone et al., 2016), the intelligence here refers to human intelligence. In other words, AI technologies are the models of human thinking and action. In line with that proposition, in education, and in language teaching and learning in particular, AI would behave as a language teacher (Bailin, 1987; Matthews, 1993). Studies in AI and language learning should focus on the roles of teachers. The

development of AI technologies that help learners learn languages should be based on what teachers would do in language teaching and learning contexts.

In language teaching and learning, AI is part of the evolution of the use of computer technology in the language classroom. These practices started around 1960s and gave birth to Computer Assisted Language Learning (CALL). About a decade later, the rising of AI applications further extended CALL studies into Intelligent CALL, or ICALL (Lu, 2018). The first recognised publication on ICALL was the article by Weischedel et al. (1978) who developed an AI German tutor. This might initialise the development of Intelligent Tutoring System (ITS) in the 1980s. Self (1998) provides a thorough description of the early versions of ITS during the 1980s and 1990s; emphasising on compassion and precision. The initial developments are about systems that 'care' for the learners; adapting to the needs of the learners, while the next decade brings more computationally precise forms in the design with more additional features such as learning environment and collaboration. At the turn of the new millennium, as computer technologies enhances, AI begins to show its significance in working with big data, and within the context of this paper, it deals with the data of learners' language (Godwin-Jones, 2017). Moreover, the developments in Natural Language Processing (NLP) techniques have brought new enhancements in language learning. NLP would make computers to communicate in a human language (Stone et al., 2016), or in a more detailed description, to analyse, comprehend, and produce human language in both spoken and written forms (Lu, 2018). With these technologies, AI-powered devices are now able to talk to and understand learners, provide feedback to their spoken language, and grade their writing.

Researchers and teachers, however, are somewhat ambivalent about the use of AI technologies in the language classroom. As AI brought the promise of personalised learning, many studies extol the benefits of AI in language learning. For example, AI technologies have been found to be able to check students' grammar and provide sophisticated feedback (Bailin, 1987), process students' language input (Holland et al., 1993), and give more effective grammar feedback (Nagata, 1996). Early AI studies were mostly about grammar, but along with the enhancements of computer technologies, more recent studies show that AI has more to offer. For instance, the applications of AI in

language classrooms have been found to have the following benefits for the learners: providing meaningful communications (Lu, 2018), aiding collaborative roles (Tafazoli et al., 2019), improving speaking performance (El Shazly, 2020), increasing motivation (Yin et al., 2021), and enhancing reading comprehension (Bailey et al., 2021). Despite these positive findings, however, a number of studies came up with contradictory results. In its early development, the sanguine views of AI in language studies were considered misunderstood (Last, 1989) and exaggerating (O'Brien, 1993). Moreover, reflecting on what AI could do in the 1990s, Salaberry (1996) even doubted whether AI could be beneficial to language learning and teaching. Steenbergen-Hu and Cooper (2014) suggest that AI has only a moderate impact on students learning, and more recent studies conclude that AI is not a legitimate learning tool (Gallacher et al., 2018) and in several occasions, the language produced by AI is non-natural and unsuitable (Pace-Sigge & Sumakul, 2021) and decontextualized (Wilson et al., 2021). Regarding the issues of classroom application of AI, the problems may lie in the limited pedagogical design of the AI apps (Rieland, 2017; Zawacki-Richter, 2019) or teachers limited pedagogical knowledge (Sumakul, 2019). In their systematic literature review to journal articles on intelligent assistants and language learning published in the period of 2010-2020, Kukulka-Hulme and Lee (2020) point out that although the technology has been found to have benefits to offer to language learners, there is little known about the roles of the teachers in utilising it in the classrooms. How the task should be designed or how the teacher should guide the students when working with the app is yet to be elaborated. These issues should also apply to other types of AI technologies.

In spite of the debates, AI is developing and will continue to develop in an exponential speed. AI offers the possibilities of “learning that is more personalised, flexible, inclusive, and engaging” (Luckin et al., 2016, p. 11). One way to understand the impacts of AI on language teaching and learning is to see them from language teachers’ perceptions.

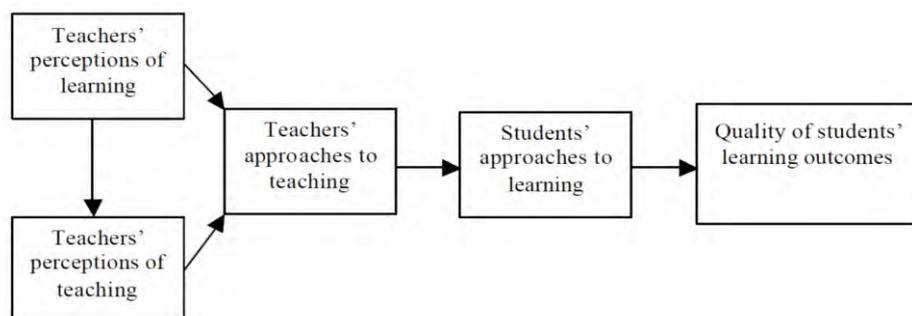
Teachers’ Perceptions

Teachers’ perception is related to how teachers view a certain concept or practice in their teaching and learning processes, and is an

important aspect in the success of their students' learning. Synthesising from a number of previous studies, Cope & Ward, (2002) came up with a diagram showing why teachers' perception matters (see Figure 1).

Figure 1

Teacher-student Perception and the Quality of Students Learning Outcomes (Cope & Ward, 2002, p. 68).

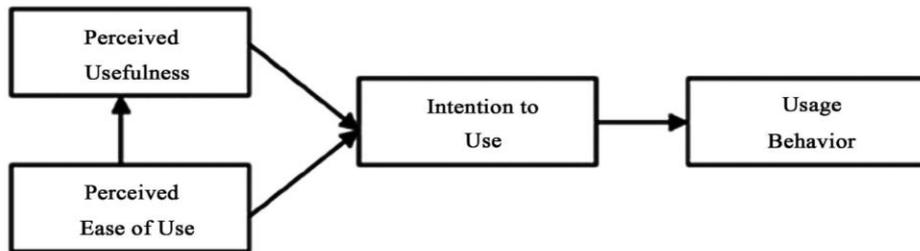


From the diagram it could be seen that teachers' perceptions of learning and teaching would affect how they approach teaching and the students to learning. All of these would eventually influence the students' learning quality. Teachers' perception might not have a direct impact on students' learning, but it is a significant element of the success of students' learning.

In terms of learning technology integration, studies show that teachers' perceptions indicate the same significance. Teachers' perceptions have been found as vital (Parr, 1999), critical (Ertmer, 2005), and dispositional (Ottenbreit-Leftwich et al., 2018) factors in how teachers use technology in their classrooms. A relevant example of this conception could be found in the work of Deng et al., (2014) who found that teachers' perceptions would affect their teaching approach and practices regarding technology integration. Teachers would use technology if they think it would bring benefits to the teaching and learning processes. This is related to the term perceived usefulness, as described in Davis' (1989) Technology Acceptance Model (TAM) in Figure 2 below.

Figure 2

Technology Acceptance Model (Davis, 1989)



The figure depicts the interplay of some elements affecting the use of technology. Along with perceived ease of use, perceived usefulness would determine the intention to use which would affect usage behaviour, how a person would use technology. In other words, in conjunction with Figure 1 discussed previously, how teachers perceive technology integration would affect their willingness to use technology and later how they use it in classrooms. In general, teachers are the ones who would decide whether to use the technology or not, how students should use it, how often, and for what purpose. This could be the reason why teachers' perceptions of technology use are worth researching.

There have been a number of studies that looked at teachers' perceptions towards the use of technology in language classrooms, but research that specifically explores EFL teachers' perceptions of AI is still lacking. Therefore, since AI can be considered as a type of technology, to see it also from the framework of technology in general should also be relevant. To start with, many found that teachers had positive perceptions of the use of technology in language classrooms (e.g., Aljohani, 2021; Alzubi, 2019; Djiwandono, 2019; Huang et al., 2019; Muslem et al., 2018; Owen et al., 2018). Along with these promising findings, however, some studies also highlighted several issues needed to be considered. For example, Arnold and Ducate (2015) found that language teachers were still not able to embrace the pedagogical advantage offered by technology. Susanto and Yosephine (2019) also found that the excessive amount of time and energy required might prevent teachers from taking the full advantage offered by technology

and suggested that teachers need to focus on the pedagogical goal and be creative regarding the use of technology in their classrooms. Therefore, Ding et al. (2019) suggested that teachers need to be assisted so they could see the potential of technology to enhance their classrooms. Furthermore, when exploring teachers' perceptions of the use of automated writing evaluation technology in students' writing, Wilson et al. (2021) found that although it would offer assistance to teachers, it may also create new instructional challenges. In short, despite the positive perceptions, there are also some aspects worth considering regarding the use of technology in language classrooms. Similar relevant aspects would also be looked at in this paper, in the context of the use of AI technology in EFL classrooms.

Methodology

Participants

As AI was a relatively new technology and not so many EFL teachers were familiar with it, this study employed purposeful sampling method (Leavy, 2017). With purposeful sampling, participants are intentionally selected to suit the purpose of the study. However, for the sake of validity and efficiency, Creswell and Plano Clark (2011) explain that the selection should involve several considerations, such as the participants' knowledge and experience with the topic of the study. Thus, the participants selected for this study were four EFL teachers in an English Language Education department at a university in Indonesia. Those teachers were chosen because for the past two years, they have been accustomed to utilising a number of AI-powered apps in their teaching.

AI Technology and Classroom Application

The AI apps used by the teachers participated in this study were Plot Generator (<https://www.plot-generator.org.uk/>) in their writing classes, and Elsa (<https://elsaspeak.com/en/>) in their pronunciation classes. Plot Generator is a web app that create different kinds of plots instantly based on some prompts provided by the user. For example, in

creating a short story, the app would ask the user to provide the title, the types of the opening, conflict, and resolution, some details about the characters, and some adjectives to describe some aspects of the story. Based on those prompts, the short story will be written for the user. The app was used during three meetings when the students were learning about short stories. The students were asked to work in groups and in a computer laboratory. Before creating their story, each group would discuss what words and contexts to feed into the app for creating the story. Once the story had been generated, they would also work collaboratively to revise the story before submitting it.

As for Elsa, it is a mobile app that helps the user in improving their pronunciation. At the beginning, there is a pre-test to measure the user's pronunciation competency. In this pre-test, the user will be asked to read 20 sentences. Based on this pre-test, the app would create a personal syllabus for the user. The syllabus is based on the sound errors found in the pre-test. With this app, students were asked to work individually at home based on the syllabus generated by the app personally for each of them. During their weekly classroom meeting, however, some teachers would conduct a reflective focus group discussion where the students shared their learning experience with the app. Instead of focus group discussion, some other teachers asked the students to write a short reflective essay about their learning experience with the app.

Data Collection

To collect the data needed to answer the research questions, this study used deep interviews with semi-structured format. Mackey and Gass (2005) explain that interviews could reveal phenomena that cannot be seen with direct observations. Moreover, the interviews were conducted using both the traditional, face-to-face interview and a mobile instant messaging interview (MIMI) (Kaufmann & Peil, 2020). The researchers intended to use only MIMI, but one participant insisted that she could only do it through face-to-face interview. The other three interviews were conducted using WhatsApp, a mobile instant messaging application. Interviews using instant messaging applications have been found to have the following benefits: time and place flexibility, time and cost efficiency, and richer data (Kaufmann & Peil, 2020; Maeng et al., 2016; Opdenakker, 2006).

As semi-structured interviews, there were follow-up questions. The follow-up questions were based on the initial answers to the primary questions. In general, the interview questions elaborated on the following major categories: the participants' opinions about the apps, the application of the apps in their teaching, the participants' experiences when working with the apps, and the students' experiences when working with the apps.

Data Analysis

The data analysis was about the teachers' perceptions towards the use of AI in their classrooms based on Davis' (1989) Technology Acceptance Model. Even though there are two types of perceptions in the model, perceived ease of use and perceived usefulness, the analysis in this study only focussed on the latter. Given the nature of the participants of this study, the former would be more suitable for students. Focussing on perceived usefulness and using thematic coding, the findings were then grouped into different themes for further analysis and discussion.

Results and Discussion

In terms of perceived usefulness, the data indicated that the findings of this study could be grouped into two different subjects; for teachers and for students. For teachers, it is mostly related to how the apps could help the teaching process. Meanwhile for students, in addition to helping them in learning the EFL learning materials, AI apps could also help building their creativity and increasing their motivation. These perceptions are listed in Table 1 below.

Table 1

EFL Teachers' Perceptions Towards the Usefulness of AI in EFL Classrooms

Subjects	Perceived Usefulness
Teachers	AI could help teachers in their teaching.
Students	AI could help students study their lessons. AI could build students' creativity. AI could increase students' motivation.

The perceptions in the table above could be discussed under the following topics: teachers' roles, language learning materials, creativity, and motivation.

Teachers' Roles

In general, the participants viewed AI positively regarding its impacts on the roles of language teachers. All agreed that AI could help teachers with their teaching. Several topics came out during the interviews; from how AI were taking over some roles of the teachers, the threat that AI could replace teachers in the near future, and the emergence of some new roles of language teachers due to the development of AI technology.

Regarding the changes in teachers' roles in the language classroom, all participants agreed that AI might affect teachers' roles, but they viewed the changes positively. For instance, the participants were exposed to some examples of how some teachers' roles were being performed by AI and were asked their opinions about this phenomenon. In general, all were quite optimistic about it. For an example, T1 said she was happy with the AI apps as they could ease the burden off the teachers. She emphasised, "So the more it reduces the work of the teacher, the happier I am". There was, in fact, a little concern expressed by T4 regarding the disruptive effects of AI. She stated, "I am a little bit worried, to be honest. But I also need to embrace change and advancement". Although concerned, however, she realised that she needed to go along with the development of technology. In line with this, despite the worriedness, T3 strengthened that teacher need to use technology as it can help the students learn better. This is a very important message. The main role of a teacher is to help their students learn. AI is used to help the teacher performing this role.

The participants were also asked about their opinions with the idea that AI could replace teachers. They all agree that AI will not replace teachers. For example, T1 said that, "it should help the teacher but the teacher is still the most important. Similarly, T4 said, "For the time being, I think for most classes, teachers are still needed." AI apps are just tools and teachers are still needed.

During the interview, the conversation also expanded to the new roles that teachers need to assume due to the development of AI

technology. For example, T3 mentioned one additional task for teachers is to find ways of using the apps as teaching tools. In other words, teachers are the ones who would decide whether an AI app could be beneficial to their students or not and how the app should be used by the students. In line with this, T2 also mentioned that another new role for teachers is to guide the students on how to use the app appropriately. One interesting revelation from the interview regarding the changing roles of teachers came from T4. She said that teachers should actually play important roles in AI apps development. She stated, "I actually want to learn to create apps for learning, not only using." To involve teachers in apps development could be the key to successful applications of the AI apps since teachers could contribute many ideas regarding the pedagogical aspects of the apps.

Current AI technologies are able to perform some of the teachers' tasks in language classrooms and students can learn without the presence of a teacher. These could serve as indications that teachers' roles are being disrupted. This does not mean, however, that teachers would be replaced by AI in the near future, as suggested by some experts (e.g., Edwards & Cheok, 2018; von Radowitz, 2017). AI could help the work of a teacher, but the teacher will still be a key element in a language classroom, a determining factor in helping students to become successful learners.

Moreover, as suggested by the interview data, although AI is changing many aspects of the teaching practices, the changes should not be seen negatively. Instead, teachers should be ready to upgrade themselves by learning new roles required in AI-injected learning settings (Montebello, 2018). Correspondingly, Sumakul (2019), with his teachers' ACE skills, highlights that AI might play many roles in the lesson delivery stage, but the preparation stage and evaluation stage would still be dominated by the human teacher. AI apps are just tools, designed to help teachers to teach better, to help the students learn.

Language Learning Materials

EFL classrooms are about learning the English language. All participants indicated that the AI apps helped the students understand the lessons or the language learning materials. The data shows that these perceptions were based on two different sources. The first is their

assumptions when analysing the features of the apps, while the second one is their observations of what happened with the students when working with the apps. In fact, those two sources supported each other and came to a similar conclusion that the AI apps helped the students' learning.

For example, based on the features of the Masterpiece Generator app, T1 agreed that in general the app would help the learning process. More specifically, T2 explained that the app could help students to know more about parts of speech (e.g., nouns and adjectives). Moreover, the app could also help students in learning how to write their short stories. She further elaborated, "The app may help the students to get to know how to develop the plot of a narrative writing, how to begin a narrative essay, and how to introduce the characters and the setting of the story". Similarly, on Elsa app, T4 said, "If students are serious of improving their English pronunciation, then ELSA seems to be a great help."

The participants also agreed that the AI apps could help students based on what they saw in their classrooms. For instance, T1 observed that her students were practising using the app and got a confirmation from the students that they were helped by using the application. Similarly, T3 and T2 agreed that the app helped the students write their stories. T2 said, "When we did the classroom activity to provide content for the story, the students could see the elements: Title, Characters, Plot, Setting, Climax, etc." For the pronunciation app, T4 explained how the app could help the students learn English pronunciation. She said, "This app seems to be good at analysing or finding students' 'weak spots' in pronunciation."

The stories from the four teachers with the two apps share the same message that AI apps could target on specific language learning materials (grammar, writing, and pronunciation in the context of this study) and help the students in learning those materials. With Masterpiece Generator, the AI produces the language in forms short stories, in the context of this study, and the students learned from them as the models for their own writing. For the pronunciation app, Elsa, the AI comprehends the spoken utterances produced by the students, analyses them, and provides feedback should there were errors in pronunciation. What these two apps could do helps explain what Lu (2018) discusses on how AI technologies could analyse, comprehend, and produce human language.

Moreover, the fact that AI technologies could help learners learn has also been reported in other recent studies. For example, El Shazly (2020) suggests that chatbots could facilitate improved speaking performance. Bailey et al. (2021) also reports that the use of storybots in an L2 class could increase reading comprehension. Cancino and Panes (2021) claim that Google Translate, with their neural machine translation technology, could assist students in their writing. To sum up, when used correctly, these AI technologies could help students in their learning.

Creativity

Interestingly, there was evidence that AI could help build students' creativity. Although not stated explicitly, the discussions during the interviews revealed that creativity might be fostered during the learning process. This happened when the students were working with the Plot Generator app.

For example, T3 said that the AI app helped the students "to think and produce their own writing". The two verbs she used here, think and produce, could resemble the idea of creativity. The verb think indicates that cognitive processes were involved, while the verb produce shows that there was an outcome, a creation by the cognitive processes. The indication of creativity was also reported by other teachers. For example, T1 reported that, "there were stories that I had never imagined before. Probably they've got the idea from the prompts, from the application".

Students' creativity was also triggered in another way, through the imperfection of how the AI apps produce the language. As the language produced by the AI app was not always natural, students need to work on it to make it better. This was reported by T3, saying that, "... the students realized how bizarre the final story, that the app generated ... then learned how they could make the story more realistic". Regarding the same issue, T2 said, "... the students will have to revise and edit the nonsense parts of the writing and add other characters to turn the story into a better narrative writing." The tales from the teachers reveal that the imperfection of the AI apps in creating the stories could actually open the path for the creative thoughts and later products in students' learning.

One might argue this could not be a sign of creativity as what the students did was just correcting the story ideas created by the app. The

correcting efforts made by the students, however, required them to think and analyse the problem, and later came up with a solution. This should be a creative process. As Bereczki and Kárpáti (2021) suggest, in classroom settings, creativity occurs when students come up with their own novel and original ideas that are valuable and meaningful in the context of the classroom.

The interview data indicates that the teachers were, in fact, aware of the weird stories created by the app, but use them as triggers for learning to happen. Stannard (2015) concludes that the key is not about the technology but how the teacher uses the technology in the classroom. If used correctly, technology could help promote creativity. Especially regarding AI, Pfeiffer (2018) explains that AI adds value to the creative process and can enhance human creativity.

Motivation

The data shows that the AI apps used in this research could increase students' motivation. Based on Deci and Ryan's (1985) Self-Determination Theory (SDT), this study found that AI technologies could play important roles in motivation. When the students are enjoying their learning, it could be a sign of the existence of intrinsic motivation. The same claim could be stated when the AI app has the potential to promote learners' autonomy. In short, concerning motivation, there are two key words here: enjoyment and autonomy.

In terms of enjoyment, it often occurred in the interview sessions when the participants mentioned how happy their students were when working with the Apps. For example, T1 said that she observed that her students had fun while working with the app. She even asked the students about it for confirmation. She asked her students whether they were happy working with the app and reported, "... most of them said yes." Moreover, T3 told similar experience, "I observed my students were enthusiastic to write".

Another clue for intrinsic motivation was autonomy. In a simple explanation, it could be said that learning autonomy happens when students study by themselves without having the teacher to ask them to study. This was also suggested by T4 when claiming that the Elsa app could promote personalised learning outside class. T1 had a more convincing story on how the Masterpiece Generator app could promote

autonomy. One week after she introduced the app, she found that her students still used the app even though she did not ask them to use it. T1 said, “the next week I asked the students whether they still use the prompt ... And then they said yes we used that.”

Despite the complex nature of motivation, it is measurable and observable through students’ behaviour. The use of SDT here because it has been proven to be useful in identifying and examining motivation with digital technologies in language learning (Henry & Lamb, 2019). In this study, the signs of intrinsic motivation appear in the stories from the teachers when they said that the students were happy about their learning and when the apps could help promote learner autonomy. In line with Yin (2020), this is an important finding since it provides evidence on how technology, AI technology in particular, could help build students’ motivation in EFL classrooms.

Pedagogical Aspects to Consider

This study found that the teachers had positive perceptions towards the use of AI technologies in EFL classrooms. In addition to the positive perceptions, there are several other things to consider when integrating AI in language classrooms. Based on the interview data in this study, there are two aspects: students’ motivational levels and teachers’ technological and pedagogical knowledge.

Students’ Motivational Levels

Two participants reported that, based on their observation, the AI apps being used in this study could only work for a specific type of students. T1 reported that the students working with the AI app have to be “active independent students”. Similarly, T4 explained that the app would work well if the students are “highly motivated” to do the tasks by themselves. If this is true – that AI apps could only work for active independent students and highly motivated students, then it is a problem. What about the students with low motivation?

Many agree that motivation is another key element in successful learning in addition to aptitude. Motivation is able to influence what, how, and when we learn (Schunk & Usher, 2012). Particularly in the context of language learning, Dörnyei and Ryan (2015, p. 72) state that

motivation helps to initiate the learning and later help sustain the learning process. Given its importance, it is the role of the teacher to keep its existence during the learning process.

If a teacher finds out that an app might not be suitable for students with low motivation, there might be internal or external factors (Deci & Ryan, 1985) or it might be the limited pedagogical design of the app (Rieland, 2017; Zawacki-Richter et al., 2019). It is the role of the teacher to create activities that could help enhance their students' motivation. The teacher is the one who decides what technology to use and how to use it. If an app has been proven to have no benefits for the students' learning, the teacher could decide not to use it or design activities that could improve the pedagogical potential of the app.

Teachers' Technological and Pedagogical Knowledge

Another aspect to consider when integrating AI technology in language classrooms is the readiness of the teacher. The readiness here is related to teachers technological and pedagogical knowledge regarding the AI apps. This issue was raised by T3. She was the coordinator of the writing classes that used Plot Generator. She mentioned that the other teachers under her coordination might not feel comfortable in using the app because they did not prepare the teacher on how to teach with the app. When asked about what she would do differently in the next semester regarding the issue, she said two things: "1. Will train the teachers better. 2. Will provide lesson plans for the teachers." These are in line with the idea that teachers need to be assisted and supported when working with technology (Ding et al., 2019; Owen et al., 2020).

Some teachers might be familiar, or even attracted to the use of educational technology, but many others might be not. Even though they are well equipped with pedagogical knowledge, they might struggle when dealing with technology. This could be related to the new instructional challenges faced by teachers when working with AI technology as mentioned by Wilson et al. (2021). Providing teacher trainings or teacher technology assistants to the teachers who are still lacking in technological knowledge might fill the gap.

Conclusion

Friend or foe? This study suggests that Artificial Intelligence (AI) could be considered as a friend. This claim is based on the findings of this study concluding that the participants have positive perceptions regarding the application of AI technology in their English as a Foreign Language (EFL) classrooms. In general, the participants agreed that AI could help teachers teach and students learn. Moreover, two additional aspects were found worth considering when integrating AI in language classrooms. They are students' motivational levels and teachers' technological and pedagogical knowledge.

AI is a relatively new technology, but it is changing the world. Particularly, in the field of language teaching and learning, there have been some developments affecting how teachers teach and how students learn. This study has revealed some of the issues regarding this matter. To have a better understanding on this issue, however, more data involving more teachers with different contexts are needed. It would also be more complete if this could be seen from the point of view of the students and other stakeholders of education in general or in the context of language teaching and learning in particular.

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