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Examining Students' and Teachers' Perspectives and Practices of AI

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ABSTRACT

The rapid development of technology has made an earth-shattering innovation take the world by storm: Artificial Intelligence (AI). This study aims to determine the perceptions and practices of teachers and students in using AI in the classroom. Four university teachers and 30 students were sent questionnaires, and four teachers and 23 students were given online structured interviews. The results stated that in the student group, as many as 24 respondents (80%) had a good perception of AI, and six respondents (20%) had an excellent perception of AI. Meanwhile, in the teacher group, three respondents (75.0%) had a favorable perception, and one teacher respondent (25.0%) had a very favorable perception of AI. This result is also reinforced by the practice of students' and teachers' perspectives of AI, which state that AI is beneficial in eliciting students' responses, attracting students' attention, and increasing their motivation and creativity. Nevertheless, AI is just an intelligent tool; no matter how excellent and optimal the tool is, how much potential humans can utilize depends on the use and the user himself.

INTRODUCTION

The advancement of technology, especially Artificial Intelligence (AI), has changed by leaps and bounds since the beginning of the modern deep-learning era in 2012 (Zhai, Shi, & Urban-Lurain, 2020). From its initial establishment in 1956 until now, its evolutionary processes have had ups and downs, yet generally, it has created positive results. Study fields such as STEM (Science et al., and mathematics), sociology, psychology, economics, social science, political science, and others have been affected to certain extents. In social science, for example, English as a Foreign Language (EFL) has gained a new transformation as indicated by its theory, method, approach, research, and application, creating a situation where

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new things keep appearing under innovation. As such, AI has brought a considerable transformation to the development of teaching and learning (Guilherme, 2019)

So far, studies show that an increasing number of scholars have started to use this evolutionary tool called AI in the past decade because of its enormous potential as a technical tool to support the learning process of education (Paek & Kim (2021). Therefore, the fact that teaching and learning environments have been entirely improved and innovative thinking practices have been supported (Al Hashimi et al., 2019) emphasizes the mighty power of this tool.

Moreover, because of the significant impact in the past decade, Radwan has divided AI into many types: (1). Information Retrieval techniques commonly used in gamification such as Word Wall web, Kahoot, and Quizzez. (2). Machine Translations such as Google Translate and Microsoft Translator (3). Automatic Speech Recognition such as Siri, Alexa, and Google Assistants (4). Text-to-speech techniques include Eleven Lab, Murf AI, and Resemble AI (5). Open digital language dictionaries such as Wiktionary and DeepL (6). Intelligent programs to augment speaking skills include Orai, Stimuler- IELTS Speaking Buddy, and (7). Writing evaluation AI such as Grammarly, Google doc., (Radwan, 2017). These varied types emphasize the explosion of AI development, which makes many new media and applications appear, thus supporting the optimistic view of boosting cognitive science advancement and creating a new era of technology.

AIEd (AI In Education), as it is called, is focused entirely on the development of teaching-learning. When being peeled off carefully, it can be found that AIEd is fully covered with AI-education integrated concepts from the surface unit until across the whole. AI concept in education, starting from facilitating learning and decision-making, is not without the participation of the stakeholders themselves, such as teachers, students, and administrators (Hwang, Xie, Wah, & Gašević, 2020). Aside from the typical advantages of technology issues such as flexibility and affordable, saving time and efficiency, and being supported by an automatic machine function that always gets to work once it turns on and never tired, it goes without saying how precious something that supports many people interests is and AIEd can fully cover that aspect.

On the other hand, the results of AIEd are generally positive; both motivational encouragement and cutting-edge technology functional advantages mostly combined make a significant effect of AIEd implemented: Academic achievement of students can be raised in such form as final mark of examination, graduation rate by course, or completion level of course material or learning enjoyment level (Ouyang, Zheng, & Jiao, 2022) enables instructors to optimize their teaching by getting rid of the monotonous and time-consuming teacher tasks. (Hwang et al., 2020). However, integration of high AI technologies does not ensure a positive educational result (Castañeda & Selwyn, 2018). Simply using a tool randomly, even if it is the most cutting-edge one, will not work well or, even worse, hurt the user. At this stage, the guide user comes in to participate. The presence of an expert is essential; in this case, the teacher is needed to control the situation in the class. A few research on AIEd, such as by (Whitehill & Erfanian, 2022) and (Jia, Sun, & Looi, 2023), are rarely done in higher education. What AI algorithms are commonly used and how they influence online higher education remain unclear. Most of the findings focused on the specific aspects of AI, such as ethics, policy, and others; more needs to be found about the general perception and practice of AI in which university teachers and students are employed. To fill the gap, this systematic review provides an overview of empirical research on the applications of AI in online higher education (Ouyang et al., 2022). (1) the incorporation of educational and learning theories into AI-based online education; (2) the implementation of advanced AI technologies to capture and analyze real-time process data; and (3) the employment of evidence-based research to appraise actual results of AI applications in online higher education.

Starting with examining the ethical principles currently informing AI, in which any aspect needed to be viewed, including ethics policy development for children and K-12 education (Adams, Pente, Lemermeyer, & Rockwell, 2023). What the study is mostly about is the ethical and rational way of choosing AI - What sort of AI to use when to use it (and when not) and how to use it to generate ethical results. This is where decisive policy is needed for the developers, educators, and so on.

AI is viewed differently by all kinds of people, especially the teachers. Some teachers support it optimally, but others do not. It happened in an article about how teachers perceived an AI-enhanced scaffolding system developed to support students' scientific writing for STEM education (Kim & Kim, 2022). Results revealed that most STEM professionals reported that the use of AI as a scaffolding mechanism resulted in better performance. Along with these changes come the new roles played by teachers in the classrooms and more transparency in the decisions made by the AI system.

AI's penetration into the policy and practice of education is still within the purview of experts only, which is a reason to level up AIEd evaluations, especially with regard to ITS (intelligent tutoring systems) and AAEA (anthropomorphized artificial educational agents) (Schiff, 2021). The preliminary strategies towards a more thoughtful engagement with AIEd's future are used, and how the AIEd community can exercise the social responsibility incumbent on it to realize the best of promising technologies like AIEd while avoiding the worst harms.

Teachers and students also gained the impact of AI: Perceptions About Generative AI and ChatGPT Use by Faculty and College Students (Petricini, Wu, & Zipf, 2023). Overall, learners and teachers indicated their familiarity with AI ChatGPT, but few said that they used the technology. The time is now—the time when higher education can make the most meaningful and resounding impact with regard to molding and shaping perceptions, use and misuse, and ethical directions.

The current study is stimulated by the rare research findings of what has been done in AI, especially in higher education. It has many varieties of types, functions, and features. Nevertheless, the only available research focuses on more corresponding AI, such as ChatGTP and others, instead of viewing it from the broader aspect of the general one. On the other hand, the types of research are primarily qualitative or quantitative, and more needs to be done to gain more information. Hence, this study sought to answer two research questions: (1) what are teachers' and students' perceptions of AI?, and (2). How are teachers' and students' AI practices?

RESEARCH METHOD

This study employs a mixed-method research design, combining both quantitative and qualitative methods to explore students' and teachers' perceptions and practices of Artificial Intelligence (AI) in an educational setting. The research is structured around two main areas:

- Perception of AI by Teachers and Students: Data on perceptions were collected using questionnaires (quantitative method).
- Practice of AI by Teachers and Students: Data on practices were collected through structured interviews (qualitative method).

The mixed-method design is particularly suited for this study, as it allows for a comprehensive exploration of both the measurable aspects (such as frequency or intensity of use) and the deeper, contextual insights (such as motivations, challenges, and experiences) surrounding AI in education. As Creswell (2015) suggests, mixed methods allow researchers to address complex research questions by combining both numerical data (quantitative) and narrative data (qualitative), providing a fuller understanding of the research problem.

The integration of both quantitative and qualitative data is a central aspect of this approach, which Creswell & Clark (2016) argue enhances the validity and richness of research findings. The qualitative data can help validate or explain the quantitative findings, while the quantitative data may support or contextualize qualitative insights. Additionally, the findings from one method may inform or generate hypotheses for the other. For example, the qualitative interviews may reveal nuanced insights that can be tested through the quantitative survey responses, creating a dynamic interaction between the two datasets (O'Cathain et al., 2010).

Participants and Research Instruments

The study involves 30 university students and 4 teachers from an English-intensive class at the Islamic State of Sunan Ampel Surabaya. Convenience sampling was employed to recruit

participants based on their availability, as this is a practical approach for this study's context (Weathington, Cunningham, & Pittenger, 2010).

Quantitative Data

The questionnaire was administered to both students (30 respondents) and teachers (4 respondents). The questionnaire assessed their perceptions of AI in the educational process, focusing on three key aspects:

- AI integration in the learning process.
- AI integration in the curriculum.
- Future possibilities of AI in education.

The questionnaire used a Likert scale (Strongly agree, Agree, Disagree, Strongly disagree) to quantify responses, allowing for statistical analysis of perceptions.

Qualitative Data

Structured interviews were conducted with the 30 students who completed the questionnaire and the 4 teachers. The interviews aimed to explore their practices of AI in education, including how they use AI tools and their experiences with these tools in the classroom.

By combining the questionnaire responses with the interview data, this study aims to provide a richer, more nuanced understanding of AI's role in education at the university level.

FINDING AND DISCUSSION

Findings

Based on teachers' and students' practice of AI, it is found according to the scoring points:

Table 1

Table of scoring points

Favorable	Unfavorable

Strongly Agree	4	Strongly Agree	1
Agree	3	Agree	2
Disagree	2	Disagree	3
Strongly Disagree	1	Strongly Disagree	4

The following guide to interpreting percentage values: 0-25% indicates a very unfavorable perception, 26-50% indicates an unfavorable perception, 51-75% indicates a favorable perception, and 76-100% indicates a very favorable perception.

Table 2

Frequency distribution of respondents' answers (students)

Number	**Strongly Agree**		**Agree**		**Disagree**		**Strongly Disagree**		**Total**	
	Freq.	Per(%)	Freq	Per(%)	Freq	Per(%)	Freq	Per(%)	Freq	Per(%)
Q1	6	20.0	21	70.0	3	10.0	0	0	30	100
Q2	7	23.3	21	70.0	2	6.7	0	0	30	100
Q3	8	26.7	21	70.0	1	3.3	0	0	30	100
Q4	6	20.0	21	70.0	3	10.0	0	0	30	100
Q5	4	13.3	24	80.0	2	6.7	0	0	30	100
Q6	3	10.0	25	83.3	2	6.7	0	0	30	100
Q7	7	23.3	19	63.3	4	13.3	0	0	30	100
Q8	9	30.0	21	70.0	0	0	0	0	30	100
Q9	10	33.3	19	63.3	1	3.3	0	0	30	100
Q10	8	26.7	22	73.3	0	0	0	0	30	100
Q11	4	13.3	22	73.3	4	13.3	0	0	30	100
Q12	12	40.0	18	60.0	0	0	0	0	30	100
Q13	9	30.0	19	63.3	1	3.3	1	3.3	30	100
Q14	5	16.7	16	53.3	9	30.0	0	0	30	100
Q15	7	23.3	20	66.7	3	10.0	0	0	30	100
Q16	3	10.0	8	26.7	17	56.7	2	6.7	30	100
Q17	9	30.0	14	46.7	6	20.0	1	3.3	30	100
Q18	1	3.3	7	23.3	10	33.3	12	40.0	30	100
Q19	4	13.3	22	73.3	4	13.3	0	0	30	100

Q20	6	20.0	16	53.3	8	26.7	0	0	30	100
Q21	8	26.7	13	43.3	9	30.0	0	0	30	100
Q22	3	10.0	12	40.0	15	50.0	0	0	30	100
Q23	6	20.0	23	76.7	1	3.3	0	0	30	100

Based on the table above, most respondents responded positively to the statements. However, Q18, about Robots replacing human teachers in the future, has the most negative answers (disagree and strongly disagree), and Q16, about AI being taught in higher level classes, only has the second most negative answers (disagree) to the given statement.

Table 3
Frequency distribution of respondents' answers (teachers)

Number	**Strongly Agree**		**Agree**		**Disagree**		**Strongly Disagree**		**Total**	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Q1	2	50.0	2	50.0	0	0	0	0	4	100
Q2	2	50.0	2	50.0	0	0	0	0	4	100
Q3	0	0	3	75.0	1	25.0	0	0	4	100
Q4	1	25.0	3	75.0	0	0	0	0	4	100
Q5	1	25.0	3	75.0	0	0	0	0	4	100
Q6	1	25.0	2	50.0	1	25.0	0	0	4	100
Q7	1	25.0	0	0	3	75.0	0	0	4	100
Q8	2	50.0	2	50.0	0	0	0	0	4	100
Q9	1	25.0	3	75.0	0	0	0	0	4	100
Q10	2	50.0	2	50.0	0	0	0	0	4	100
Q11	1	25.0	3	75.0	0	0	0	0	4	100
Q12	1	25.0	3	75.0	0	0	0	0	4	100
Q13	1	25.0	1	25.0	2	50.0	0	0	4	100
Q14	0	0	0	0	4	100.0	0	0	4	100
Q15	2	50.0	1	25.0	1	25.0	0	0	4	100

Q16	1	25.0	2	50.0	1	25.0	0	0	4	100
Q17	0	0	4	100.0	0	0	0	0	4	100
Q18	0	0	4	100.0	0	0	0	0	4	100
Q19	0	0	1	25.0	0	0	3	75.0	4	100
Q20	1	25.0	3	75.0	0	0	0	0	4	100
Q21	0	0	4	100.0	0	0	0	0	4	100
Q22	0	0	3	75.0	1	25.0	0	0	4	100
Q23	0	0	2	50.0	2	50.0	0	0	4	100

Based on the table above, the distribution of respondents' answers shows that most teachers answered positively to the statements given. However, Q19, about Robots replacing human teachers in the future, has the most negative answers (strongly Disagree), and Q14, about AI being taught in higher level classes, only has the most negative answers (disagree) to the statements given.

Table 4
Respondents' perceptions (students)

Number	Respondent	Total Score	Percentage (100%)	Perception
1	R1	64	69.56522	Favourable perception
2	R2	62	67.3913	Favourable perception
3	R3	63	68.47826	Favourable perception
4	R4	64	69.56522	Favourable perception
5	R5	64	69.56522	Favourable perception
6	R6	79	85.86957	Very Favourable perception
7	R7	66	71.73913	Favourable perception

8	R8	62	67.3913	Favourable perception
9	R9	61	66.30435	Favourable perception
10	R10	62	67.3913	Favourable perception
11	R11	55	59.78261	Favourable perception
12	R12	76	82.6087	Very Favourable perception
13	R13	67	72.82609	Favourable perception
14	R14	63	68.47826	Favourable perception
15	R15	63	68.47826	Favourable perception
16	R16	64	69.56522	Favourable perception
17	R17	69	75	Favourable perception
18	R18	62	67.3913	Favourable perception
19	R19	69	75	Favourable perception
20	R20	79	85.86957	Very Favourable perception
21	R21	64	69.56522	Favourable perception
22	R22	64	69.56522	Favourable perception
23	R23	63	68.47826	Favourable perception
24	R24	57	61.95652	Favourable perception

25	R25	66	71.73913	Favourable perception
26	R26	60	65.21739	Favourable perception
27	R27	72	78.26087	Very Favourable perception
28	R28	69	75	Favourable perception
29	R29	80	86.95652	Very Favourable perception
30	R30	75	81.52174	Very Favourable perception
Average		66.13333	71.88406	
Standard Deviation		6.339		

Based on Table 3, it can be seen that of the thirty respondents, the mean value is 66.13, with a standard deviation of 6.339. Specifically, five respondents, R6, R12, R20, R27, and R28, have very positive points of view on the perceptions of AI.

Table 5
Respondents' Perceptions (Teachers)

Number	Respondent	Total Score	Percentage (100%)	Perception
1	T1	89.0	89.0	Very Favourable perception
2	T2	71.0	71.0	Favourable perception
3	T3	73.0	73.0	Favourable perception
4	T4	67.0	67.0	Favourable perception
Average		75.0	75.0	
Standard Deviation		9.660		

Based on Table 4, it can be seen that the four respondent teachers have an average score of 75.0 with a standard deviation of 9.660.

Table 6
Respondents' Perception Data

Number	Perception	Students		Teachers	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Very Favourable perception	6	20.0	1	25.0
2	Favourable perception	24	80.0	3	75.0
3	Unfavorable Perception	0	0	0	0
4	Very Unfavourable Perception	0	0	0	0
Total		**30**	**100**	**4**	**100**

Table 3 shows that all respondents have a positive perception of AI. In the student group, 24 respondents (80%) have a favorable perception of AI, and six respondents (20%) have a favorable perception of AI. Meanwhile, in the teacher group, three respondents (75.0%) have a favorable perception of AI, and one teacher respondent (25.0%) has a very favorable perception of AI.

Teachers' and Students' Perceptions of AI

Teachers' Perceptions of AI

Perception is a person's opinion about what has been done according to experience. One of the objectives of this study is to find teachers' and students' perceptions of AI. To obtain complete data, seven interview questions were employed consisting of the experience when using AI-specific platforms, how these platforms support the study, whether these platforms affect any changes in the study, the best experience experienced when using these platforms, the disadvantages, the suggestions, and the interviewee's willingness to share something of

related-experiences based on those apps. Starting from the experiences of four teachers when using AI platforms, AI Gamification (Quizzes, Kahoot, Wordwall), AI writing evaluation tools (Grammarly, google Docs), or AI translators (Google Translate, Microsoft translation) were applied.

> *"While using the specialized AI platform, English learning was much more interactive and fun, enhanced students' creativity, and kept students motivated: students can do scores-racing. Many students who had no previous experience using the platform eventually learned and became addicted to learning English, especially students who were still sleepy in the morning and excited to learn."*

Regarding eliciting students' responses, AI gamifications such as Quizzes, Kahoot, and Wordwall engage the center of attention in classroom learning. In addition, using the apps, as mentioned earlier, also makes students more creative and motivated, in the sense that students can utilize the game features in them, such as score races. The features that can be utilized make it enjoyable for students to learn and discover something new in the English language context. In addition, the intensive English class at this Islamic university generally starts at 6.00 a.m. and finishes at 7.00 a.m. Of course, teachers and students can make arrangements to be more flexible, such as starting at 6.30 a.m. and finishing at 7.30 a.m., but only at 7.45-08.00 a.m. because the first lecture will begin. The AI use was very stimulating for the sleepy students.

> *"They tend to be very easy to accept learning if I use AI, especially quizzes. Through quizzes and Kahoots, It is easy to know the students' ability to understand the material and know the results concretely. Students can see their scores, the questions they answered incorrectly, and choose which parts need attention."*

In addition to making it easier for students to receive the material presented, AI gamification can also function as an assessment tool because at the end, after students have worked on the material questions, the teacher will immediately know the score in the sense that this can be made for part of the assessment in scoring students' cognitive or knowledge. On the other hand, students can also find out which part of the question they got right or wrong, even though sometimes there is a reason why the question can be wrong, and they learn from that.

> *"Students were very interactive in class and even asked for extra quizzes."*

When students are interested in learning and take it seriously, the learning process is half successful because trial and error will happen in all stages. The teacher will be happier with those who are diligent in learning and asking even though they are not too good at solving problems than those who are smart but lazy. This is the researcher's experience as a student

who has attended education for 16 years (from elementary school to bachelor's degree). Thus, AI, especially gamification, can solve one of the biggest problems in education; the rest is teachers' management ability and teaching quality.

> *"This platform helps me to check the correct grammar."*

Grammar checking can also be done through AI applications, more precisely, AI writing evaluation tools such as Grammarly and Google Doc, because both applications can instantly correct misspellings, grammar, and writing errors. This feature is outstanding and helpful for second language learners because even researchers admit they cannot write in English 100% consistently and entirely correctly. Therefore, the researcher feels that it is necessary for teachers and even students, especially novice writers, to install AI apps that have been designed like that in the first place.

On the other hand, the disadvantages of using the three types of AI are AI Gamification (Quizzes, Kahoot, Wordwall), AI writing evaluation tools (Grammarly, google Docs), or AI translators (Google Translate, Microsoft Translation). One of the teachers said that there were no significant problems in terms of technical and internal or external users; all that needed to be considered as optimal preparation.

> *"There are no major challenges. We must prepare the materials and assessments well, which must then be integrated into the platform."*

However, most teachers, or three of them, said that technical issues are still the main problem, and paid features make users use the free version.

> *"Technical issues such as devices and internet, and for the free version of the platform, we can only create limited exercises, for example, 5 for Word Wall."*

In this case, there is not much that can be done to overcome the internal shortcomings of the AI application itself except for the suggestion from the interview, which the application creators might reconsider due to the intense use of technology and education, which is increasingly becoming more integrated.

> *"Because learning is now very dependent on the development of technology, this is very much needed."*

On the other hand, the use of AI tools certainly needs to be supported by gadgets and internet connections, and these two things are not new in this day and age; even arguably, every

person in the current generation has these two things, especially students who study in the university, higher education.

> *"Every child has a mobile phone, so this supports autonomous learning."*

When using these apps, students will be able to study continuously if they want to, meaning that the question-and-answer material can be accessed anytime after it has been shared; even if there may be a small time limit, it does not stop students' enthusiasm for learning because there are many other materials on the same topic that can be accessed anytime. Students are free to determine their study hours. This is called autonomous learning, and AI applications support it.

Students' perceptions of AI

The same seven questions were applied, and students' perceptions of AI were thoroughly described: AI Gamifications (Quizzes, Kahoot, Wordwall), AI writing evaluation tools (Grammarly, google Docs), or AI translators (Google Translate, Microsoft Translation).

After going through data reduction, data display, and conclusion, the data of 23 students who answered the same interview questions as the teacher in the previous sub-chapter were generated. The following are descriptions of the students' experiences after using AI and how the platform supported their studies:

> *"AI is beneficial in learning and skills, especially for me. The current generation must be literate in technology and be able to use technology as a creative and cool medium in the teaching and learning process: it can complete lecture assignments and help me add lecture ideas. It is flexible and fun, makes life easier and interesting, and makes the class conducive. Everything is practical: manage data quickly, repetitively, and learn automatically from data patterns or features."*

Not far from the teacher's perception, students also have the idea that after they use one or more of the three types of AI (AI Gamifications, AI writing tools, and AI translators), many things can be done more efficiently, quickly, interestingly, practically, and automatically. Using AI, students can simplify and complete their tasks quickly and accurately.

On the other hand, one of the 23 respondents stated that using AI is no worse than smoking, which is an addiction that will only weaken our brain's unique natural abilities.

> *"AI can make my brain not work optimally and only addictive to rely on a fast and practical system. I am a university student. I should be able to control myself."*

Not only as a motivation and evaluation feature, AI can also help users when they need ideas or assistance, such as abstracts regarding narrative text; by simply writing on Google or Grammarly, AI will automatically correct all kinds of deficiencies, even including meaning.

> *"The three AIs (AI Gamifications, AI writing tools, and AI translators) can also help us when we need ideas for help suggestions."*

On the other hand, how AI can affect students' studies and their best experience using this AI platform. The information revolves around convenience and completion because one of the main reasons humans create AI is to ease human work.

> *"Digital/AI platforms are very helpful in developing students' motivation and quality of learning, faster completion of some tasks such as more easily filling in questions given by lecturers, not getting bored with the same old learning methods, helping humans to increase efficiency, improve decision making, and open the door to innovations."*

Interestingly, not all of AI's influence is positive. One respondent said that using AI makes him unsure whether the results are credible and valid.

> *"There is a little influence in my study because I do not 100% trust AI yet."*

AI translator tools such as Google Translate benefit users, especially in terms of vocabulary. Many people, and even researchers, sometimes have to utilize AI tools (used to use thick dictionaries) to convert from L1 to L2 words.

> *"very helpful; sometimes I forget about the vocabulary of Indonesian words."*

Regarding the processing speed and use of AI, one of the students emphasized that if used correctly, the work will be done very quickly, allowing the remaining time to be used for other work.

> *"AI can sort, analyze, and process data in a short period, e.g., H-1 assignment, and I was able to complete an assignment that would have taken seven days."*

AI challenges aside from the technical side, there are also some problems mentioned by students, such as

> *"Sometimes AI is not completely correct. Sometimes, AI has corrected it, but when I correct it myself, it turns out that there is still something wrong."*

Now, AI is still in the stage of rapid development, and in the development of an advancement that can change the world, trial and error is necessary and inevitable. Therefore, the principle of double-checking from AI and human users is essential. On other challenges, there are two points that students believe they face obstacles from AI users, namely laziness and difficulty.

> *"The challenge is that we become more dependent and reluctant to learn, so we are too lazy to read books.*
>
> *Moreover, first-time users are confused because they are not used to things like logging in and how to fill in questions."*

One interesting answer was expressed by one of the respondents: In a case where the teacher gave an assignment, there were at least two students, one using his brain to work to the fullest purely without the help of AI tools and the other using AI. It was found that the results of both were similar.

> *"I tried to make my brain work while my friend used AI, and the results were 11-12. Isn't that sad?"*

The last interview question deals with future suggestions for AI platforms students use. They said there should be ethics here in using AI, namely the time limit and who has the right to use it because it is not at any time, and everyone can ethically use it.

> *"All groups should not too freely use it. It should be given a limit, which is the time to learn first which ones can access the platform. It would be nice to know which limits when using and when the brain has to work and be used in moderation/self-control."*

The prediction of one of the 23 students also said that as a technology-savvy generation, we must be able to take part in the use of AI, both for its current use and preparation for a more sophisticated, newer, and more complete version in the future.

> *"Learn AI from now on. Because in the future, it can be predicted that AI will be very influential in the lives of modern humans."*

Discussion

AI, a popular tool, has spread to all lines of knowledge, especially AIEd (Artificial Intelligence in Education). The researcher explored the use of AI in terms of teachers' and students' perceptions and practices of AI. Based on Tables 1 and 2, the respondents positively perceived AI. In the student group, 24 respondents (80%) had a favorable perception, while

six respondents (20%) had a favorable perception of AI. Meanwhile, in the teacher group, three respondents (75.0%) had a favorable perception of AI, and one teacher respondent (25.0%) had a very favorable perception of AI. This is corroborated by the statement of the student group from the practice of AI, who agreed that AI is beneficial in terms of learning and skills, able to complete lecture assignments and help to add lecture ideas, very flexible, fun, makes life easier, exciting and makes the class conducive, everything is practical, manages data quickly, repetitive processing, and learns automatically from data patterns or features. On the other hand, teachers also revealed that using AI helps teachers in classroom learning, especially in three aspects: eliciting students' responses, attracting students' attention, and increasing their motivation and activities.

This result is strengthened by the statement that students who used the AI-powered learning books recall more of what they read and ask more questions than those students who used offline content (Koć-Januchta, Schönborn, Tibell, Chaudhri, & Heller, 2020). Both students' and teachers' perceptions and practices of AI also use AI writing assessment tools (Grammarly, Google Docs), and AI translators (Google Translate, Microsoft Translation), which may help individuals learn successfully based on their preferences, levels, or personal traits. (Hwang et al., 2020).

Quantitatively, both teacher and student respondents who answered disagree on Q18/Q19 about Robots replacing human teachers in the future had the most negative answers (strongly disagree), and Q14/Q16 about AI being taught in higher level classes only had negative answers (disagree). One of the student respondents also supported this, emphasizing that human creation is not perfect in that sometimes AI is not entirely accurate when correcting the answer.

This is a reminder that AI is just an intelligent tool. No matter how excellent and optimal the tool is, how much potential humans can utilize depends on the user and the user himself. As good as a tool is, it will only be enough with people to control it properly. The successful implementation of new instructional technologies The deployment of new academic technologies is closely linked to how the teacher who is leading the session interacts with

these technologies (Fernández-Batanero, Román-Graván, Reyes-Rebollo, & Montenegro-Rueda, 2021). Without teachers, digital education would not have the capacity to fulfill its ambitious goals (Dreyfus, 1999).

The findings of this study provide valuable insights into how AI can be integrated into higher education, especially in enhancing student learning and teacher effectiveness. Both students and teachers had favorable perceptions of AI, particularly regarding its ability to increase engagement, and motivation, and facilitate learning. This highlights the importance of developing AI integration strategies that leverage these positive perceptions. Universities could consider incorporating AI-powered tools such as writing assistants, language translators, and adaptive learning systems, while providing teachers with the necessary training and support to effectively integrate these technologies into their pedagogy. Successful AI integration will likely depend on the collaborative efforts between educators and technology, with teachers playing a crucial role in maximizing AI's potential in the classroom.

However, the study is not without limitations. The small sample size, consisting of only 30 students and 4 teachers from a single university, restricts the generalizability of the findings. Moreover, the use of convenience sampling introduces potential bias, limiting the diversity of participants and perspectives on AI in education. These limitations suggest that further studies should involve larger, more diverse samples to provide a broader understanding of AI's impact across different educational contexts. Additionally, the study primarily focused on perceptions and practices, without examining the actual learning outcomes. Future research should explore the long-term effects of AI integration on student achievement and other measurable learning outcomes to provide a more comprehensive assessment of its effectiveness.

Future research could build on these findings by addressing the limitations identified in this study. Longitudinal studies that track the impact of AI tools over time could provide insights into the sustained effects of AI on student learning and academic performance. Furthermore,

research involving more diverse populations from multiple institutions could offer a broader perspective on AI's role in education. Investigating teacher training and its influence on AI integration would also be valuable, as teachers are central to the successful use of AI in the classroom. Additionally, exploring AI's role in assessment and feedback could deepen our understanding of how AI tools like Grammarly or Google Docs affect student performance and contribute to their learning processes.

CONCLUSION

Examining students' and teachers' perceptions and practices of AI discussed teachers' and students' perceptions of AI using qualitative data and teachers' and students' practices of AI using quantitative data. This research is generated by two research questions: (1). What are teachers' and students' perceptions of AI? and (2). How are teachers' and students' AI practices? The data was taken from examining students' and teachers' perceptions of AI by giving them questionnaires. In contrast, the quantitative one was taken from examining students' and teachers' practice of AI by interviewing them using the structured online interview. The results are that in the student group, as many as 24 respondents (80%) had a good perception of AI, and six respondents (20%) had a perfect perception of AI.

Meanwhile, in the teacher group, three respondents (75.0%) have a favorable perception of AI, and one teacher respondent (25.0%) has a very favorable perception of AI. This result is also reinforced by the practice of students' and teachers' perspectives of AI, which states that AI is beneficial in eliciting students' responses, attracting students' attention, and increasing their motivation and creativity. It can also help teachers gain insight into students' evaluations, how well they answer questions, and others.

The point that needs to be considered is, as one of the students said, "Make AI your friend rather than an enemy." it means that a user has to be careful and can control when using AI, never forget the ethical considerations and policy documents, including the needs to do double checks when using AI because error and misjudgment are standard in the field (technology) of humans capabilities to create. Future researchers may add the number of participants and

respondents involved to gain more vigorous, valid, and reliable information. On the other hand, using other quantitative methods, such as finding the significance degree between AI variables, may be added to gain accurate prediction findings.

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