

Islamic Education Students' Perceptions: A Phenomenological Study on the Ethical of Using Artificial Intelligence (AI) in Learning

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Abstract. *The use of Artificial Intelligence or AI in learning as a form of integration between real and virtual world in the Society 5.0 Era presents challenges in the ethical aspect, such as forms of responsibility for use, data security issues, and plagiarism in the creation of works. The concept of ethical use of AI in learning is needed, included in the perception of Islamic Education students as AI users in Islamic Education learning, will provide a broader perspective and could be associated with the context of Islamic Education. This research will explore the perception of Islamic Education (PAI) students about the ethics of using AI in learning based on phenomena at Islamic State University of Sultan Aji Muhammad Idris (UINSI) Samarinda. Descriptive qualitative research with phenomenological methods is used to answer the formulated objectives. Data collection uses interview techniques supported by surveys. Data analysis using the Miles, Huberman, and Saldaña models in the form of data condensation, data display, and conclusion drawing. The results of this study explain the perception of students in a neutral manner based on the phenomena experienced at UINSI Samarinda related to the concept of ethics in the use of AI in learning with the ethical limitations discussed as follows: 1) Absence of data privacy and security issues and their prevention; 2) Plagiarism avoidance that must be done because there is great potential that occurs at the location, and; 3) Responsibilities that are only carried out by some students.*

Keywords. *Artificial Intelligence; Ethics; Learning; Perception; Students.*

Abstrak. Penggunaan *Artificial Intelligence* atau AI dalam pembelajaran sebagai wujud integrasi dunia nyata dan maya di Era *Society 5.0* menghadirkan tantangan tersendiri dalam aspek etika penggunaannya, seperti bentuk tanggung jawab penggunaan, masalah keamanan data, dan plagiarisme dalam pembuatan karya. Konsep etika penggunaan AI sangat dibutuhkan, termasuk dalam persepsi mahasiswa Pendidikan Agama Islam selaku pengguna AI dalam pembelajaran Pendidikan Agama Islam, akan memberikan sudut pandang yang lebih luas dan dapat dikaitkan dengan konteks Pendidikan Agama Islam. Penelitian ini akan mengeksplorasi persepsi mahasiswa Pendidikan Agama Islam (PAI) tentang etika penggunaan AI dalam pembelajaran berdasarkan fenomena yang terjadi di Universitas Islam Negeri Sultan Aji Muhammad Idris (UINSI) Samarinda. Penelitian kualitatif deskriptif dengan metode fenomenologi digunakan untuk menjawab tujuan yang dirumuskan. Pengambilan data menggunakan teknik wawancara yang didukung dengan survei terkait penggunaan AI dengan analisis data menggunakan model Miles, Huberman, dan Saldaña berupa kondensasi data, *display* data, dan penarikan kesimpulan. Hasil dari penelitian ini menjelaskan persepsi mahasiswa secara netral berdasarkan fenomena yang dialami di UINSI Samarinda terkait konsep etika penggunaan AI dalam pembelajaran dengan batasan etika yang dibahas adalah: 1) Ketidadaan permasalahan privasi dan keamanan data beserta pencegahannya; 2) Penghindaran plagiarisme yang harus dilakukan karena adanya potensi besar yang terjadi di lokasi, dan; 3) Tanggung jawab yang hanya dilakukan oleh sebagian mahasiswa.

Kata Kunci. *Artificial Intelligence; Etika; Mahasiswa; Pembelajaran; Persepsi*

A. INTRODUCTION

The Society Era 5.0 allows the integration of the real world and the cyber world (Haqqi & Wijayati, 2019; Mantik & Sodik, 2023; Sugiri et al., 2023). This integration can occur by utilizing Artificial Intelligence or AI based on Big Data and Robots, as a concept of centralizing society with technology (Nastiti & 'Abdu, 2020; Pristian & Hambali, 2019). The development of AI can make the education process easier (Bakti et al., 2023; Supriadi et al., 2022), because educators can freely adapt learning styles and methods to the material and needs of students (Chan & Hu, 2023; Nguyen et al., 2023), and can be the basis for learning evaluation and administration (Zahara et al., 2023). Considering the various conveniences that educators and students get by using AI in learning, AI should be integrated in education (Rouf et al., 2024) for national and international scale with various preparations accompanied by increased resources needed.

Regarding learning, the use of AI for educators will help improve the professionalism and creativity of educators (Arisanti et al., 2024; Rahman et al., 2024). For students, the use of AI will increase the efficiency and effectiveness of learning (Fauziyati, 2023), influencing critical thinking and creativity (Essel et al., 2024; Hakim et al., 2024; Tejawiani et al., 2023), and affect learning independence (Shen & Teng, 2024). The use of AI in the context of Islamic Religious Education, or commonly called by PAI learning, for educators can help create learning modules and make summative and formative evaluations (Setiawati et al., 2024). For students, the use of AI in PAI learning can improve the quality of writing skills (Sulaeman et al., 2024), improving digital literacy (Lubis et al., 2023), helping with concept learning, conducting research, finding additional references, and developing soft skills (Akhyar et al., 2023; Febriani et al., 2023). The various benefits obtained by using AI in PAI learning make it very important to discuss in more depth. The use of AI must still pay attention to ethical aspect in its use, so that it does not violate applicable norms or rules.

The ethical aspect in the use of AI is a challenge in the implementation of education, where the ethics include privacy (Cahyono et al., 2023; Khogali & Mekid, 2023), dependency (Sabila, 2023), transparency (Balasubramaniam et al., 2023), fairness, and responsible attitude (Agustina, 2023). For example, responsible ethics related to the use of AI in learning can be implemented by providing clear and concrete references to the material or learning materials obtained through AI, so that the material can be accounted for. Ethics as an urgency to ensure that AI can be used wisely (Taruklimbong & Sihotang, 2023). The ethics of using AI philosophically refer to the ethics of digital communication, so the use of AI must also use appropriate language (Yahya et al., 2024). Another thing that makes ethics very important to consider in the use of AI is the potential for bias from the information provided, so users must be really careful in sorting out information and using AI wisely (Haryatmoko, 2024; Simamora, 2024). Given these things, of course, ethics is an important basis to accompany the use of AI, so that the benefits obtained from AI do not violate existing rules and culture (Thoifah, 2019), including in the education and learning environment, especially in the university environment.

Several previous studies have discussed the use of AI in learning. First, the study of literature conducted by Setiawan (2023), which explained that the use of AI is prone to plagiarism which violates the 10 ethics of AI use formulated by UNESCO. Second, mix-methods research conducted by Ali et al. (2023), which explained that the use of AI is very relevant in higher education, so the ethics of using AI in the academic context need to be considered. Third, quantitative research conducted by Shahzad et al. (2024), which explained that the perception of students states that the use of AI and social media has a significant relationship with academic performance and mental well-being. Fourth, quantitative research conducted by Malik et al. (2023), which explained that AI reviewed from a student's perspective has a positive effect on self-efficacy, writing ability, and

understanding of academic integrity. Fifth, survey research with thematic analysis conducted by Shoufan (2023), which explained that ChatGPT in education should be used, but it should be under the guidance and supervision of educators to reduce the limitations of its use. Sixth, literature studies conducted by Chauncey & McKenna (2023), which explained that the use of AI in learning must be carried out ethically and responsibly, so, a concept is needed to maximize the use of AI with these provisions. Researchers have not found any research that specifically discusses the ethical concept of using AI in learning from the six studies that have been mentioned, especially based on the perception of students as one of the users of AI itself. In fact, the concept of ethics as mentioned earlier is very important and very necessary to be applied.

The theoretical explanations of ethics are of course based on the perception of one individual or group. Perception is defined by Luthans (2011) as "A unique interpretation of the situation, not exactly like the recording of the situation. Perception is a very complex thought process that gives a unique picture of the world, and it can be different from reality." Another understanding related to perception was put forward by Stephen P. Robbins cited by Sutrisman (2018) as an individual process in organizing and providing an interpretation of feelings to interpret the environment. The existence of perception will affect actions, decisions, and ways of life related to something, as explained in research conducted by Permatasari et al. (2021), which is the basis for the sustainability of online learning. Another research conducted by Taufiqurrahman (2019), as the basis for the use of technology in Islamic Cultural History learning, or commonly called "Sejarah Kebudayaan Islam." As a reflection, the perception of the ethics of using AI in learning is also very necessary as a concept that is understood locally in certain regions.

This research aims to explore the ethics of using AI in learning, such as data privacy and security, plagiarism avoidance, and responsibility, based on the phenomena that occur with the perception of PAI students at the Sultan Aji Muhammad Idris State Islamic University Samarinda. The novelty in this study is compared to several previous studies, including the novelty of the methodology with a phenomenological study approach that could provide descriptions related to the use of AI and the ethics of using AI in learning based on the phenomenon that is happening through the perception of students as AI users, as well as the use of survey results as supporting data in qualitative research. Another novelty in this study is the novelty of data, namely a review of phenomena based on the perception of PAI students. This research is expected to enrich scientific theories related to the ethical of using AI in learning and become a reference for further research related to the ethical of using AI in learning, and can practically be considered as a guide to the ethical of using AI in learning for students, especially PAI students at the Sultan Aji Muhammad Idris State Islamic University Samarinda, as well as a basis for further research related to the ethical of using AI in learning.

B. RESEARCH METHODS

This research is a qualitative research, so that the data produced is in the form of arguments, explanations, and processes identified in the local context (Miles & Huberman, 1994), which is understood descriptively based on the subject being researched (Fiantika, 2022). The approach used in this study is in the form of a phenomenological approach, which is an approach that presents events based on real experiences from the interviewees (Creswell, 2009; Noflidaputri, 2022). This approach was chosen because the researcher wanted to know the perception of the resource person based on his experience using AI in learning, so that the use of this approach will be able to explain the perception of the resource person regarding the ethics of using AI based on what have been experienced and happened. The informant as data resources in this study are active students of the Islamic

Religious Education study program in semesters 2, 4, 6, 8, and 10 who have used AI in learning at Sultan Aji Muhammad Idris State Islamic University, Samarinda. The phenomenon that occurs will be proven by the informant based on the results of interviews with researchers (Creswell & Creswell, 2018), and supported by the results of a survey of 70 respondents. The data was analyzed with three stages of concept by Miles, Huberman, and Saldaña (2013), namely data condensation, data display, and conclusion drawing. The validity of the data was evaluated by source triangulation.

C. RESULTS AND DISCUSSIONS

1. Artificial Intelligence Concept

The term Artificial Intelligence was first mentioned by John McCarthy in 1955 (Manning, 2020). Artificial Intelligence is defined by him as "Science and engineering in making intelligent machines, especially intelligent computer programs" (McCarthy, 2007). The intelligent machine in question is a machine that is able to behave intelligently and is able to learn all human actions (Manning, 2020). Intelligence according to McCarthy (2007) is computing as part of the ability to achieve goals in the world. The purpose in question will be very general and broad, so it is not specific to one specific goal (Sutton, 2020). It requires knowledge, logical sentences, certain decisions and strategies according to the conditions and goals to be achieved (McCarthy, 2000).

Artificial Intelligence or AI literally means unnatural intelligence that created by humans. One of the students of Islamic Religious Education or PAI at the Sultan Aji Muhammad Idris State Islamic University Samarinda, M. Rifa (2024), in interview with researchers said that AI is an intelligence made to make it easier for humans. Another meaning with the same meaning was conveyed by other students, Khaerunnisa (2024) in interview states that AI is an advanced search engine that is used to make it easier for humans in various ways, including learning. This was also confirmed by a number of other students who stated that AI is a very advanced artificial intelligence technology that makes it easier to find information instantly, including academic information (Hadinata; I. Khoirunnikmah; S. R. Nita; F. I. Ramadhani; N. Syahrani, Interview, 6 June 2024).

The perception of several students who have been mentioned regarding the definition of AI is in accordance with the definition mentioned by Yoedtadi (2024), who mention that AI or artificial intelligence is often referred to through the mass media as "A system capable of performing tasks that human intelligence should perform through the ability to learn or adapt." Yoon & Jung (2021), defines AI as "A technology through a computer program that applies human abilities such as learning, detecting, perceiving, and understanding language." It was also explained by Hartati (2021), that the definition of artificial intelligence is an elaboration of four categories, namely computer systems that can think like humans, systems that act like humans, systems that think rationally, and systems that act rationally. These three definitions are very much in line with students' perceptions in defining AI.

AI has several types, namely knowledge representation, expert systems, computer reasoning, machine learning, artificial neural networks, natural language processing, pattern recognition, computer vision, robotics, and decision support systems (Hartati, 2021; Zebua et al., 2023). The three types of AI mentioned first are knowledge-based, while the others are based on the ability to learn through computational methods, including Natural Language Processing or NLP (Hartati, 2021; Jaya et al., 2023). Natural Language Processing, abbreviated as NLP, is defined by Eisenstein (2019) as a set of methods that make human language accessible to computers or systems. NLP aims to extract information derived from text or data sources, translate between multiple languages, answer various questions, conduct conversations, or reply to chats, perform instructions, and so on. Among

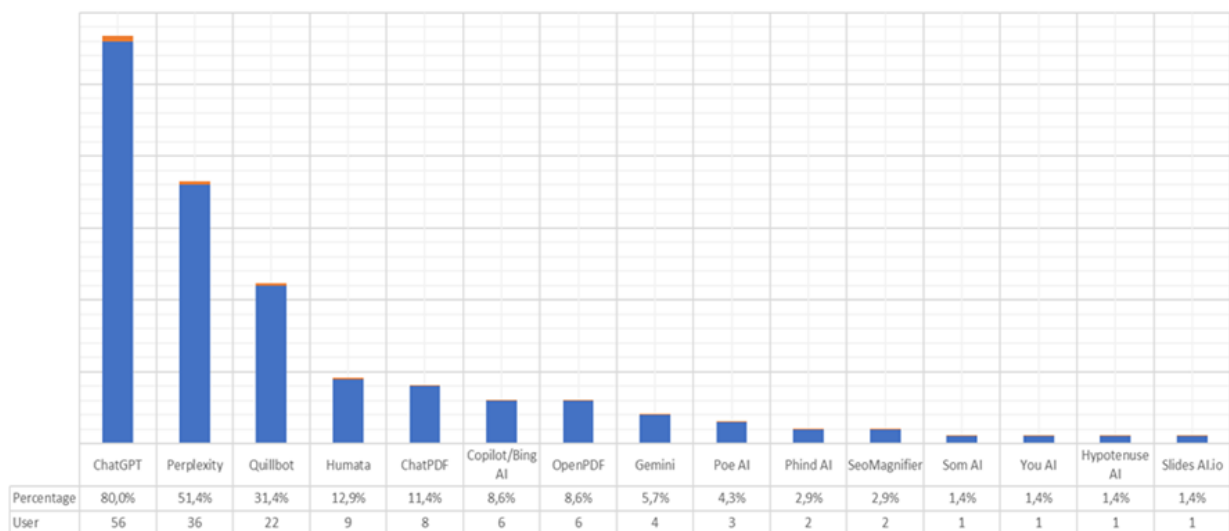
the forms of NLP is ChatGPT (Ren et al., 2023), Perplexity (Toral et al., 2015; Zhong et al., 2024), and so on that can perform tasks to achieve the goals of NLP.

2. The Use of Artificial Intelligence in Learning

The use of Artificial Intelligence in the context of learning will refer to the use of tools such as ChatGPT and so on to support learning (Harsya et al., 2024; Rifky, 2024). Based on interviews, students use AI as an idea starter when creating a written work (A. Fatikah et al.; M. Rifa, Interview, 6 June 2024), searching for references for task work (Khaerunnisa; M. Rifa, Interview, 6 June 2024), paraphrasing writing, conduct a scientific article review (Khaerunnisa, Interview, 6 June 2024), and search for information related to questions from assigned tasks (I. Khoirunnikmah, Interview, 6 June 2024). The tools used by students are very diverse, such as ChatGPT (A. Fatikah et al.; Hadinata; Khaerunnisa; I. Khoirunnikmah; S. R. Nita; F. I. Ramadhani; N. Syahrani, Interview, 6 June 2024), Gemini AI (Khaerunnisa; I. Khoirunnikmah; S. R. Nita; F. I. Ramadhani; N. Syahrani, Interview, 6 June 2024), Perplexity (I. Khoirunnikmah; F. I. Ramadhani; M. Rifa; N. Syahrani, Interview, 6 June 2024), DeepL (Hadinata; Khaerunnisa; N. Syahrani, Interview, 6 June 2024), Paraphraser i.o., Copilot (A. Fatikah et al., Interview, 6 June 2024), BypassGPT, Quillbot (F. I. Ramadhani, Interview, 6 June 2024), and GammaApp (N. Syahrani, Interview, 6 June 2024).

Regarding the use of AI, the researcher also conducted a survey of 70 active PAI students from semesters 2, 4, 6, 8, and 10, about the type of AI used in learning. This survey is a semi-open survey, in the sense that the researcher provides several closed answer options, but also provides an open answer option if the answer the respondent wants is not available in the given option. The use of AI in learning, according to most respondents, can help provide resources and references from the needed and relevant materials to perform the task. Some respondents stated that the use of AI can stimulate knowledge, so that students can elaborate the material explored using AI, as well as become the basis for thinking and determining topics for discussion. The use of AI can certainly support learning so that it is possible to provide learning from various sources. Especially in the context of PAI, learning using AI can also be used to confirm material related to Islamic educational values, but still requires further verification by educators with adequate insights. The results of the survey related to the use of AI in learning are depicted in the following graph.

Figure 1. Survey on Using AI by PAI Students



Source: Researcher Survey Data

Based on the graph from the survey results conducted by the researcher, it is known that the majority of PAI students in the Even Semester of 2024 at UINSI Samarinda use ChatGPT in learning with a percentage of 80% of the number of respondents who use it. The use of ChatGPT as the most popular AI is due to the name AI which is the most familiar to students. In addition, some students stated that there were several lecturers who also suggested using AI in learning to support the material and references provided by the lecturers. The second most widely used AI is Perplexity at 51.4% of the respondents. The third most used AI is Quillbot with a percentage of 31.4% of the total number of respondents. The use of AI in learning is also considered a normal thing, because it helps students in doing assignments and searching for references related to learning (Khaerunnisa; M. Rifa, Interview, 6 June 2024). The existence of the percentage of AI use can provide practical benefits, namely by holding further training related to the use of ChatGPT as the most widely used AI among students.

The use of AI in learning also has its own risks for students and the work produced. The risks of using AI in learning for students are explained by M. Rifa (Interview, 6 June 2024) could lead to dependence. Other risks mentioned by A. Fatikah et al. (Interview, 6 June 2024) is that the use of AI features is very limited if it use for free, and it will required to pay if want to use the features in it more freely. Regarding the works produced, Khaerunnisa (Interview, 6 June 2024) explained that the use of AI is at risk of being detected as a form of plagiarism. So, it is must to have personal insight to overcome this. These risks are very consistent with the literature study by Dewanto (2023), which explains that the use of AI risks dependency and plagiarism in the creation of works due to laziness, deadlines, and based on the wishes of the user himself. Laziness of thinking is also confirmed by A. Fatikah et al. (Interview, 6 June 2024), so that AI is used as a sophisticated search with instant results. Another perception conveyed by Khaerunnisa (Interview, 6 June 2024) that among the factors that a person uses AI in learning is laziness to think and very short deadlines.

3. The Ethical of Using Artificial Intelligence in Learning

Ethics explained by Bertens (2007) in one of its definitions as a value that is believed by a certain group or society regarding things that are right and wrong. Ethical issues when referring to this definition will certainly be relevant to various aspects, including ethics in the use of information technology, especially in the realm of education. Ethics in the use of information technology in the realm of education includes universal moral values, including the truth and accuracy of information, data privacy and security, fairness and avoiding discrimination, responsibility, avoidance of bias, and copyright protection (Safii et al., 2024). Ethics in the use of AI, especially in learning mentioned by Rustanta et al. (2024) consists of three main things, namely goals and intentions, clarity of expression and transparency, and compliance with the code of ethics, for example avoiding plagiarism, respecting and protecting copyright, and responsibility (Dewanto, 2023; Zakaria, 2021).

The United Nations Educational, Scientific, and Cultural Organization or abbreviated as UNESCO provides 10 core principles in order to explain the human rights approach to AI ethics (*Ethics of Artificial Intelligence*, n.d.). These 10 principles are of course based on social norms, so, that they are directly related to humanity. These principles include: (1) Appropriate and harmless proportion of AI usage; (2) Safety and security of its use; (3) Existence of privacy and data protection rights; (4) Collaboration between policy makers in various aspects and adaptive government; (5) Responsibility and accountability; (6) Transparency and explainability; (7) Human supervision and determination; (8) Sustainability; (9) Vigilance and literacy; (10) Fairness and non-discrimination.

The ethical of using AI in learning are also regulated by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia in the book, "Panduan Penggunaan *Generative Artificial Intelligence (GenAI)* pada Pembelajaran di Perguruan Tinggi." The ethics pay attention to the 10 core principles of UNESCO that the researcher has explained in the previous paragraph, as well as the five principles of guaranteed trust, namely fairness, explainability, reliability, transparency, and protection of personal data (Direktorat Pembelajaran dan Mahasiswa, 2024). Four ethics regulated by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia related to the use of GenAI in learning include: (1) Academic integrity, namely as a manifestation of the main values of a university; (2) Data security and protection, which is vulnerable and high-risk when associated with digital technologies; (3) Equality and accountability, namely in order to respond to potential gaps that occur when utilizing GenAI; (4) Environmental impact, i.e. as a result of the use of GenAI (Direktorat Pembelajaran dan Mahasiswa, 2024).

Data privacy and security are crucial ethical in the use of AI for learning. Most PAI students feel that the use of AI does not compromise the privacy and security of important data (Hadinata; Khaerunnisa; I. Khoirunnikmah; S. R. Nita; F. I. Ramadhani; N. Syahrani, Interview, 6 June 2024). This is certainly contrary to the research conducted by Hadi & Guntara (2022), who explained that the security of personal data and privacy, one of which is due to the use of AI in Indonesia, is still weak and vulnerable to hacking due to the absence of regulations related to this. For example, when using AI in searching for references related to the search for books or books related to Islamic Religious Education, the classic model for learning in the field of Islamic Religious Education, AI will require users to enter an email and password as a condition for creating an account, so it is quite unsettling for students to access these references more deeply. Hadinata (Interview, 6 June 2024) explained that the sophistication of AI is certainly accompanied by sophisticated security, this must have been thought about by the developers of the AI used. To anticipate data leaks, F. I. Ramadhani (Interview, 6 June 2024) explained that users could create an email account separate from the main email account specifically for registration or AI usage requirements, so that data leaks do not occur.

Plagiarism is also an important thing to talk about in terms of ethical of using AI in learning. Risky (2024) explained that the use of AI has the potential to cause plagiarism, so it must be avoided. It was also confirmed by Khaerunnisa (Interview, 6 June 2024), that the use of AI for task work has a high probability of being detected as plagiarism. For example, when doing assignments that require students to look for previous research studies in the field of Islamic Religious Education, students who use AI in finding references tend to only copy-paste articles obtained through AI and do not add personal thoughts or synthesis from the article, thus leading to plagiarism. A. Fatikah et al. (Interview, 6 June 2024) explained that plagiarism is an act that must be avoided because it violates the copyright of other people's works, so that every sentence quote must be accompanied by references and paraphrasing as ethics to avoid plagiarism. Paraphrasing and listing references is also recommended by Maftuhin (2021) As one of the ethics to avoid plagiarism because quoting other people's statements must be clearly stated in the written sentence as a form of respecting and protecting the work.

An equally important ethic in the use of AI in learning is responsibility. M. Rifa (Interview, 6 June 2024) explained that the ethical of using AI will refer to academic ethical, such as being responsible, namely being able to account for the writing made by including its references. For example, regarding plagiarism that has been discussed in the previous paragraph, students who cite material obtained through AI search and then paraphrase must verify the origin of the material through a search engine and quote from the original

source. After that, the form of student responsibility from writing or citing the material is to provide citations in the form of footnotes or body notes, as well as listing the sources that have been referred to in the reference list or bibliography. Another perception of the ethical of responsibility related to the use of AI in learning was conveyed by Khaerunnisa (Interview, 6 June 2024) that the use of AI must still be accompanied by insights from users, so that users can take full responsibility for their work. This is done because AI also includes technology made by humans, so it is prone to have unexpected errors (Baskara et al., 2023).

The phenomenon that occurred, most of the PAI students were mentioned by I. Khoirunnikmah, S. R. Nita, F. I. Ramadhani, dan N. Syahrani (Interview, 6 June 2024) has been responsible for the use of AI by verifying sources and tracing AI-generated statements through online books and articles. Some PAI students stated in the survey that the answers provided by AI need to be confirmed, either with their own knowledge and insights, or by asking friends. The confirmation is done because not everything answered or provided by the AI is in accordance with the desired context. The impact of the attitude of responsibility stated by some students is that it can stimulate understanding, so that it will give rise to statements that are elaborated and rearranged based on personal understanding. This is in accordance with the explanation of responsibilities by Risky (2024), that among the forms of responsibility of AI is to verify and collect references from the results provided by AI. Different perceptions are conveyed by Hadinata (Interview, 6 June 2024), that there were still some PAI students who just copy the results of AI without caring about the validity and accuracy of the results. It was also confirmed by A. Fatikah et al., dan Khaerunnisa (Interview, 6 June 2024), that some PAI students are still not responsible in the use of AI. Some students stated in the survey that the AI is very sophisticated and the answers given are very accurate, so there is no need for further verification. The impact of relying on AI fully without confirmation stated by some students can make them lazy because they tend to use the ease of AI in answering something instead of using critical thinking.

D. CONCLUSIONS

The ethical of using AI in learning based on the perception of PAI students at UINSI Samarinda is focused on three things, namely data privacy and security, plagiarism avoidance, and responsibility. Data privacy and security in the use of AI in learning have no problem with the sophistication of AI technology and the use of second email accounts as a preventive measure. However, further research is needed regarding the amount of security felt by students and the level of student confidence in the security system of AI used by surveys or quantitative methods. Plagiarism is an important problem in the student's view. So, to avoid plagiarism, sentence paraphrasing can be done and listing the source of the quoted sentence. Further research is needed to measure the amount of plagiarism among students and solutions to plagiarism actions carried out by students in making scientific papers with qualitative research, action research, or mixed methods research. Regarding responsibility, some students are said to have verified the accuracy and validity of AI search results through confirmation of trustworthy sources, and some have not been responsible. Further research related to the explanation of the problem of student responsibility in the use of AI in learning and its solution with qualitative methods is highly recommended.

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