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Utilization of Chat GPT Artificial Intelligence (AI) in Student's Learning Experience Gen-Z Class

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Abstract
Technology presents data very quickly, if students do not get enough assistance from lecturers in analytical thinking, the students will present data without studying further or it will convince them that what is presented is justifiable. Lecturers need to understand the students' learning habit nowadays. The development of this teaching media is closely related to the practice of teaching in the classroom. Related to this, the ease of technology in presenting data will have a bad impact for students in their critical thinking if it is not balanced with strict assistance from lecturers. Based on this background, the relation between the development of Artificial Intelligence (AI) media, learning experience activities and critical thinking become the interesting study especially for Gen Z students. The purpose of this research is to investigate the utilization of Chat GPT Artificial Intelligence (AI) in Student's Learning Experience of Gen-Z Class. The method used in this study was descriptive quantitative with questionnaires distributed to students. The respondent in this study was 392 Gen Z students chosen with purposive random sampling. The result of this study showed the utilization of Artificial Intelligence of Chat GPT in Student Learning Experience in Gen-Z class. A total of 92,34% students utilize Chat GPT and less than 7,66% apply AI face Recognition and Voice Recognition. In conclusion, it can be assumed that students employ AI to accomplish their activities in class such as discussion, presentation, and doing homework.

Keywords: artificial intelligence, chat GPT, cone of experience, gen-z

INTRODUCTION

Technological development is like heavy rain, it cannot be avoided, but to prevent this rain become a disaster, human must organize themselves. Technology changes many aspects of human life. Daily life patterns have changed greatly since 2019 due to the emergences of enormous technologies. Shopping process, note-taking patterns from friends' chats or notes on cell phones, asking questions patterns to find the truth, such as asking via search engines Google, Bing and Yahoo are the example of technology development.

Classroom learning also changes very differently and it utilizes diverse media. The use of internet, smart TVs and Liquid Crystal Displays (LCD) becomes easy; the process of information searching using the internet and smart devices is very familiar. The term digital literacy is well-known to be applied in some schools (School Literacy Movement). Digital literacy is the ability of individuals to find, evaluate, create, and communicate information resulting from technical and cognitive processing by utilizing digital media platforms.

ICT utilization is divided into creating and communicating activities. Creating is the ability to produce information by adapting, implementing, designing or creating information in an ICT environment. Meanwhile, communicating is the ability to communicate information well in the context of its use for the ICT environment (Lankshear & Knobel, 2015).

Moreover, learning with technology has been commonplace in the era of Industrial Technology as there are diverse media innovation. Today's media presents image as if the users directly feel the actual events. Immersive media is used to present several dimension (usually 3-dimensional) that is directly real and can be felt by the user. Immersive technology refers to technology that seeks to imitate the physical world through the digital world or simulation by creating sensory feelings around it to create a sense of immersion (Pavithra, 2020). Immersive media can be understood as any technology that blends computer-generated content with the physical environment, creating a sense of immersion and stimulating human senses through interactive multimedia (Erturk & Reynolds, 2020).

The utilization of immersive media in education has a great advantage to optimize various human senses. Multimedia presented in learning tends to handle two senses only by using two communication channels (audio & visual) from the five human senses. This limits the potential for learning efficiency. At the same time, modern immersive technology allows the use of not only visual and audio media but also olfactory and haptic media (Pavithra, 2020). Immersive Technology, for example, in human body recognition material, students can learn about the human bodies and their functions by seeing digital images directly in real people and highlighting the location of the part of human bodies.

Therefore, it can lead to different learning patterns for students. The lecturers should recognize that reality. They have to update their teaching method, improve their skills in technology, and understand the character of their learning. The most important concern behind this research is the low level of students' critical thinking resulted by technology development. Critical thinking is very necessary for students because it helps them making mature and wise decisions, as well as developing soft skills for their career. Critical thinking can help students become more open-minded, expand thinking patterns, and be the problem solver.

Related to this, the ease of technology in presenting data will have a bad impact for students in their critical thinking if it is not balanced with strict assistance from

lecturers. Furthermore, the worse impact is that the students believe information presented by technology can be trusted. The focus in this study is the use of *artificial intelligence* (*ai) Generative Pre-training Transformer* or familiar with Chat GPT.

Chat GPT (Generative Pre-training Transformer) is an artificial intelligence technology that enables text-based conversational interactions. The application of Chat GPT in learning has shown various benefits, such as personalized learning, accessibility, interactive learning resources, task assistance and problem solving tool (Suharmawan, 2023). However, there are limitations in the use of Chat GPT, such as limited understanding, inability to replace creative works, inaccurate answer, and inability to distinguish between facts and opinions, and the need for a stable internet connection. Hence, the use of Chat GPT in learning needs to be carefully considered, including privacy and ethical aspects (Ramadhan et al., 2023). Several studies have highlighted that the use of Chat GPT can be a challenge for the world of education because it can reduce the originality of the work and tend not to be creative (Murcahyanto, 2023). Nevertheless, the use of this technology can help improving the efficiency and effectiveness of learning, as well as encourage innovation and creativity in the learning process (Manu et al., 2023).

Classroom learning activity is situation manifested in the learning process with models, methods, media and assessments that have been prepared by educators so that they have a pleasant learning experience and well-prepared materials. The learning activities adopted by students and teachers are closely related to the expected learning objectives and cover various aspects of the competencies (Burhanuddin et al., 2022). addition, learning activity is closely related to the use of technology and platform for teaching and learning which in accordance with the conditions and needs of students and teachers (Basri, 2022). Some *artificial intelligence* (ai) of chat automation providers are OpenAI's ChatGPT: https://openai.com/blog/chatgpt/, Google AI's Bard: https://bard.google.com/ , Jasper (formerly ShortlyAI): https://www.jasper.ai/ , DeepAI's AI Chat: https://deepai.org/chat , Talk to Transformer: https://talktotransformer.com/ , Platforms with a more specific focus called Roleplay topics: NovelAI: https://novelai.net/, ShortlyAI: https://www.jasper.ai/. Writing Assistant e.g.: Grammarly: https://www.grammarly.com/, ProWritingAid: https://www.prowritingaid.com/. Customer service bot focus for example: ManyChat: https://manychat.com/, Drift: https://www.drift.com/, and so on.

The types of activities in learning divided into eight groups: Visual activities such as reading observing pictures, observing experiments, demonstration, exhibition, and observing others working or playing (Hamalik, 2013). Oral activities include stating a fact or principle, linking a goal of submitting a question, giving advice on expressing opinions, interview, discussion, and interruption. Listening activities, for instance, listening to the presentation of material, listening to group conversation or discussion, listening to a game, listening to the radio.

The development of this teaching media is closely related to the practice of teaching in the classroom. The learning style chosen by the teacher always follows the latest media trends. The current generation of young people who are familiar with technology is called as Gen-Z. Generation Z is a group of people born between 1997 and 2012 after the millennial generation or generation Y. They are the first generation to grow up with technology and social media as an integral part of life. The characteristics of generation Z are physical, realistic, and do it yourself. They are a generation that is sociable and establish relationship with others because there is no limitation of space and time in establishing relationship with the help of technology. However, character

education for generation Z in the midst of the current dynamics of massive social environmental change is faced with many problems (Kurniawan, 2021; Arum et al., 2023; Solihatin et al., 2023). In the field of education, Gen Z is more in need of interactive learning which is relevant to real life. They also prefer learning that uses technology. While in the field of work, Gen Z prefers creative and innovative work. They also prioritize work-life balance. Gen Z is a generation that has great potential. They are a creative, innovative, goal-oriented, social and fun-seeking generation.

Based on this background, the relation between the development of *Artificial Intelligence* (AI) media, learning experience activities and critical thinking become the interesting study especially for Gen Z students. A study on digital learning, smartphone usage, and digital culture in Indonesian education found that students regularly use smartphones more than 6 to 7 hours a day and use the internet to gather information or download learning materials (Sari et al., 2020). The study also highlights the benefits of smartphone usage for students, such as improving their psychological and cultural dimensions. it's important to be aware of its potential negative impacts of Chat GPT.

The use of the internet and the accessibility of Chat GPT are two factors that require anticipation to prevent a negative impact on the development of the Gen Z generation. Hence, the purpose of this article is to present the use of *Artificial Intelligence* of Chat GPT in Student's Learning Experience in Gen-Z Era Classroom. This study focuses on the use of Chat GPT *Artificial* Intelligence in Student's Learning Experience in the Classroom and specifically in the Gen-Z Era. This study provides in-depth attention to educators, especially lecturers, for consideration in the presentation of material tailored to the tendency of Gen Z learning experiences and the latest learning media developments.

METHOD

The method used in this study was descriptive quantitative with questionnaires distributed to students. The respondent in this study was 392 Gen Z students chosen with purposive random sampling. The respondents were students in the 1997 – 2012 birth range in the Gen Z category and the students of Universitas Negeri Semarang. The method of analysis was by collecting, structuring, and interpreting quantitative data descriptively. The expert of justification was used for validity of the instrument in this research. The research was conducted in November and December 2023 on odd semester of academic year 2023/2024. This research was given at the end of the semester after students passed one semester so that they could fill the questionnaire based on their experience during the lecture.

FINDINGS AND DISCUSSION

This research activity was carried out at the end of the 2023/2024 odd semester after all respondents completed teaching and learning process. The distribution of respondent data is chosen randomly from 5 classes spread across 4 faculties with a total of 392 respondents. It consists of 143 men and 249 women of the Gen Z category, based on the range of births from 1997 to 2012.

Table 1 Age of Respondents

No	Faculty	Person
1	Faculty of Education and Psychology (FIPP)	28
2	Faculty of Languages & Arts (FBS)	305
3	Faculty of Mathematics & Natural Science (FMIPA)	41
4	Faculty of Engineering (FT)	18
Total		392

Table 2. Distribution of Respondents by Gender

Gender	FBS	FMIPA	FIPP	FT	Grand Total
Female	187	36	16	10	249
Male	118	5	12	8	143
Grand Total	305	41	28	18	392

Classroom Learning Activities

Fun learning activities in the classroom are activities that can arouse students' interest and motivation to learn, so they feel more interested in learning and it is easier to understand the material. Before starting online learning, the use of technology in the classroom as a complementary media has not been significantly used. Technology is used unilaterally by students only or teachers only. The learning process in cooperative learning with the discussion method is carried out through discussion. Only a small percentage of students use cell phones. Students rely more on books and personal opinions from their experiences. The process of making papers or getting the materials is taken from various sources from the internet and books.

The rapidly technology development change the way student discuss. The students use AI to find the material without checking from other websites. They just type the prompt to get the material they want. Furthermore, the discussion process requires a faster time because it is assisted by *artificial intelligence* (AI). The thing that worries researchers is the reducing of students' high order thinking skill and their analysis process. However, this can make it easier for stimuli to think analytically.

Learning activities carried out by students can be physical and psychological. The example of learning activities are listening, seeing, touching, smelling and tasting, writing or taking notes, reading, reading an overview or summarizing and underlining, observing tables, diagrams, and charts, compiling papers or working papers, remembering, thinking and practicing (Djamarah, 2011).

The activities conducted by students in the class resulting in questionnaires were reading, observing pictures, observing experiments, conducting demonstrations, exhibitions, and observing other people working. There were 382 students out of 392 students who filled those activities. The rest of ten students did not fill the questionnaire as they did not conduct those activities.

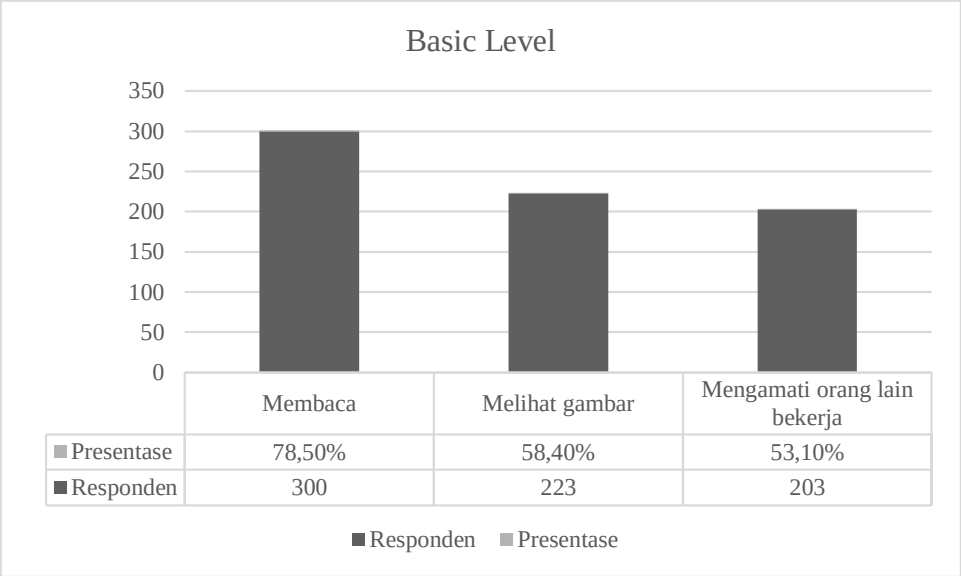

Figure 1 Basic Level of Learning Activities

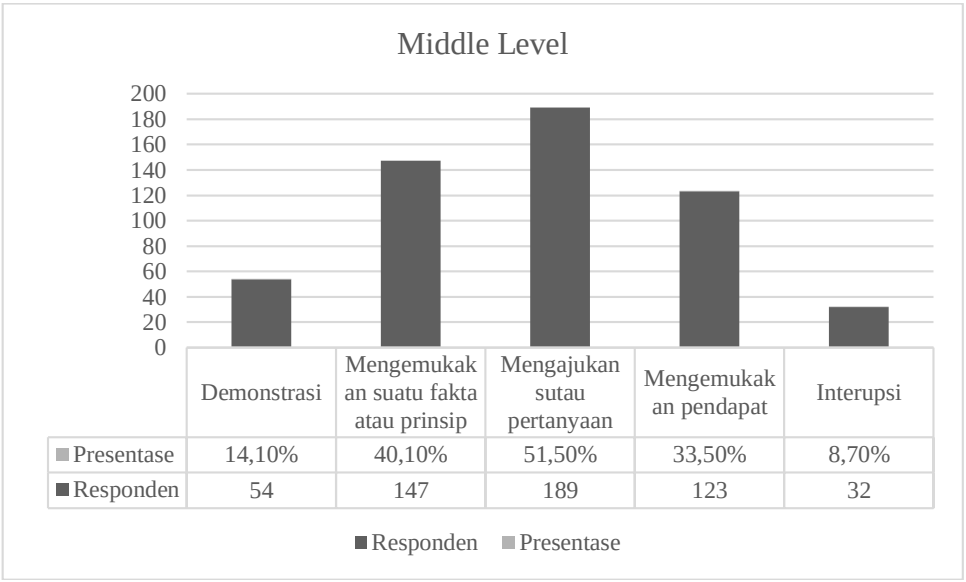

Figure 2 Middle Level of Learning Activity

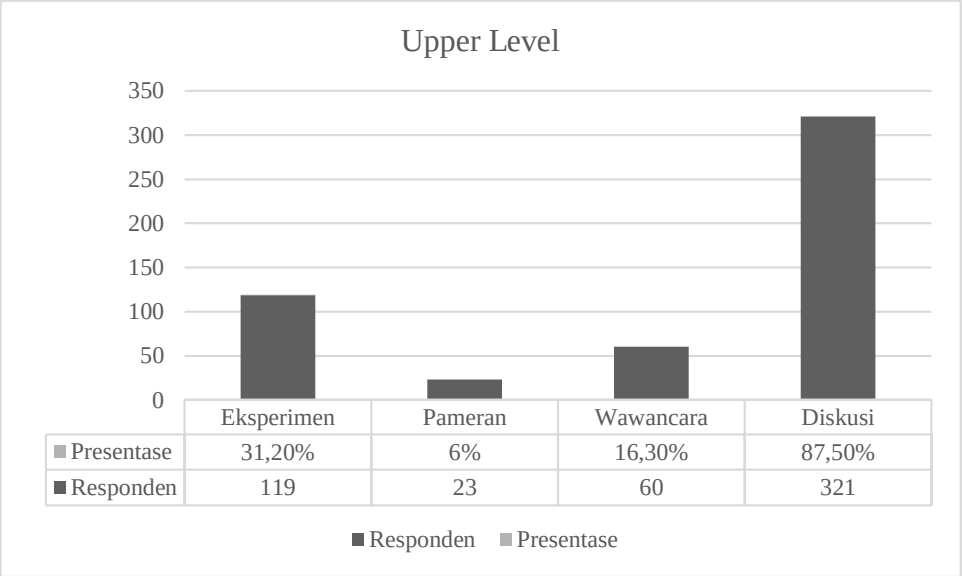

Figure 3 Upper Level of Learning Activities

Then, the activity that lead to student activeness are stating a fact or principle, asking questions, providing advice in expressing opinions, interviews, discussions, and interruptions. Twenty five students did not fill those activities as they considered the activities irrelevant. The learning activities in figures 1 and 2 present the activities carried out in the classroom. Then, the activity is classified into the Edgar Dale cone of experience so that the categorization of the learning experience level is clearer.

Based on this categorization, the tendency of activities carried out by students in class is at the basic level. The activities conducted at the basic level are verbal, visual and auditory activities. Information is presented through verbal symbols, for example listening to spoken words. Whereas according to Dale, learning at the basic level is ineffective. The most effective method involves direct and purposeful learning experiences, such as direct experiences or field experience related to everyday life. Direct experience aims at representing reality or things hidden in everyday real life. Dale's cone of experience has been adapted in practices by many subsequent researchers including Baukal, Auburn, and Ausburn in their article entitled A Proposed Multimedia Cone Of Abstraction: Updating A Classic Instructional Design Theory. The MCoA cone is designed to update Dale's CoE specifically for multimedia use in a learning context. The closer to the bottom of the cone, the more realistic the representation; the closer to the top, the more abstract it is (Baukal et al., 2013). The lowest and most abstract level in MCoA is Virtual Reality. Virtual Reality in this context is a real type and a simulation type.

The Cone of Experience (CoE), also known as the *Cone of Learning*, is a model developed by Edgar Dale in the 1940s that describes how different learning methods or media affect learners' retention rates. It is conical, with the most passive and abstract method at the bottom, and the most active and concrete method at the top. The core idea of CoL is that the more actively learners are involved in the learning process, the more they retain information. Passive methods such as reading or listening result in lower retention rates, while active methods such as conducting, creating, or participating in demonstrations result in higher retention rates.

CoE is a teaching theory developed by educational theorist Edgar Dale, which focuses on the role of audio-visual materials in encouraging enduring learning and enabling students to enjoy learning through representative experiences (Lee & Reeves, 2018). Some important aspects of the Cone of Experiences are as follows.

- Exercise is by gaining knowledge through direct experience, such as conducting experiments or conducting direct activities.
- Observation is learning by observing or observing others, such as teachers or peers, as they perform tasks or demonstrate concepts.
- Abstraction is understanding and learning from the experiences of others, which can be done through various ways, such as listening to lectures, reading textbooks, or watching videos.

The implementation of CoE is influential in education and instructional design, encouraging educators to incorporate more active and interactive learning activities into their curriculum.

Media Utilization in Classroom Learning

The effectiveness of learning is influenced by the use of media in presenting material in class. Based on the results of questionnaire, media used by lecturers in classroom learning are as follows:

Table 3 Learning Media used by Lecturers

Method/ Media	Respondent	Percentage
Lecture	254	64.8%
LCD/ Display TV	358	91.3%
Power Point	36.9	94.1%
Other options (LMS, Demonstration, AI, VR, AR, Video Conferencing)	<88	<22.4%

The combination of lectures with the presentation of material using power point becomes an excellent resource to make a fun classroom. Powerpoint media and lectures are able to present large amounts of information in a short time. Moreover, it is able to present visual and auditory data. Several studies on the use of Microsoft Power Point have proven effective in improving the skill of presenting interestingly and interactively. A study shows that this training aims to expand knowledge, enrich imagination, and build students' confidence in delivering presentations (Sastro et al., 2021). In addition, other research shows that interactive Power Point learning media based on inquiry is effective in improving student learning outcomes (Salma & Aini, 2023). To sum up, the use of Power Point help the learning process in interesting and effective way.

The use of gadget to find the references is a common thing in this digital era. Gadget such as smart phone, tablet, and laptop, offers various conveniences in accessing information, including information relevant to academic needs. Changes in advances of the technological science is influenced by globalization, especially in the field of interaction tools, i.e. gadgets (Nur & Rukmana, 2023). An overview of using gadgets to find references is as follows:

Table 4 Use of Gadget in finding References

Frequency	Respondent	Percentage
Very Often	139	35.45918
Frequent	151	38.52041
Neutral	86	21.93878
Sometimes	14	3.571429
Never	2	0.510204
Grand Total	392	100

Students use their smartphones in class to access information and learning materials from various sources, such as the internet, digital libraries, and learning applications. This activity helps students to improve their understanding of the learning materials. Some of them also use smartphones to work on assignments and projects of making presentations, writing papers, and working on exam questions. Gadget can help students to do assignments faster. The use of smartphones assist students to access online learning materials easily (Nugroho & Dirgahayu, 2020). The use of smartphones in learning has negative impact such as impaired concentration and focus in learning, dependence, and plagiarism.

The Utilization of Chat GPT AI in the classroom

The development of current technology leads to the use of *artificial intelligence* (AI). AI is used to process large data and information to produce relevant subject matter content according to the latest needs and developments. The use of AI in this context is divided into three categories: Chat Bot / ChatGPT (Generative Pre-training Transformer), Face Recognition, and Voice Recognition.

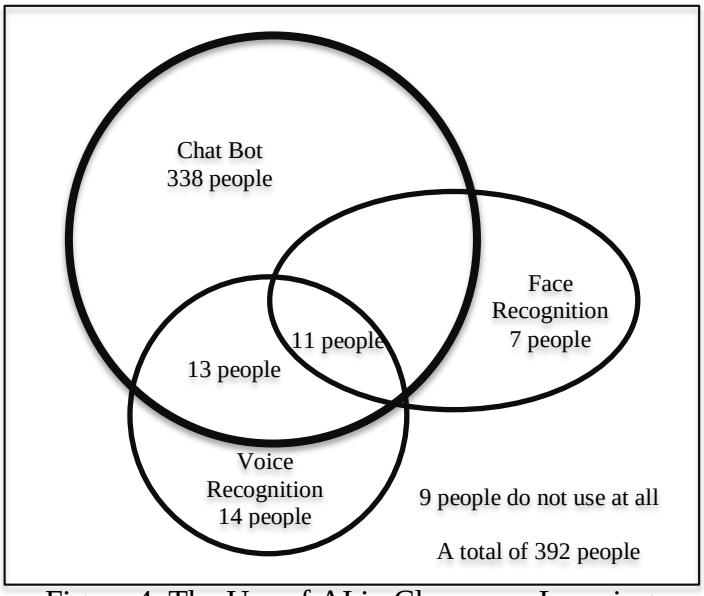

Figure 4. The Use of AI in Classroom Learning

A total of 92.34% of students use Chat Bot and less than 7.66% use AI *Face* Recognition, and Voice Recognition. It means that all student use AI to fulfil the classroom such as discussions, presentations, working on assignments. This finding alerts the lecturer to ensure students' understanding of assignment and material given. This data

also requires lecturers to follow the development of ChatGPT so that they can follow the students' mindset. In addition, the lecturer can measure the level of students understanding through the assignment. Chat GPT provides answers with comprehensive and precision. Chat GPT also provides a very fast and accurate presentation. It will lead the problem if the students only present the result without checking the correctness of the information.

Chat GPT is an aid to solve various problems, both for students in doing difficult assignments and for office workers in completing problematic tasks (Wibowo et al., 2023). Furthermore, Chat GPT can be used to answer questions and assignments from teachers, as well as provide a more personal perspective and answers, so that it can be an additional alternative to Google and Wikipedia in providing information (Wibowo et al., 2023). However, it is important to remember that the results given by Chat GPT need to be reviewed because the language model of Chat GPT still has limitations (Nurhuda et al., 2023). Chat GPT is a generative language model developed by OpenAI. This is a large language model and it has been trained on a very large data set of text and code. The Chat GPT model is used for several things including generating text, translating languages, and answering questions in an informative way.

In another study showed that Chat GPT technology has been utilized in learning, particularly in English language teaching and learning (Hatmanto & Sari, 2023). The study found that Chat GPT has the potential to enhance language learning experiences by providing simulations of human-like conversations. The study also identified effective pedagogical approaches and instructional tactics that can be employed to maximize the educational benefits of Chat GPT. In addition, a study on the challenges and difficulties encountered by computer science educators in higher education, specifically focusing on the utilization of Chat GPT technology in Libya, found that instructors confront hurdles ranging from technological limits to cultural adaptations (Alaiat, 2023). Furthermore, a research aimed to develop a Teaching-Learning support model for utilizing AI-based learning assistance systems in universities, including Chat GPT technology (Lee et al., 2023). Lastly, a training program was conducted to develop educators' skills in creating learning media based on artificial intelligence, particularly using Chat GPT (Kaswar et al., 2023).

While ChatGPT offers incredible capabilities and can be a valuable tool for students, it's important to be aware of its potential negative impacts. ChatGPT is highly inconsistent as a moral advisor and threatens to corrupt users' judgment, even when they know it is a chatting bot (Krügel et al., 2023). ChatGPT AI can pose a threat to the credibility of various forms of media if used for plagiarism, impacting detection capabilities due to the disparate nature of datasets (Zhou et al., 2022). ChatGPT raises concerns about the potential for AI systems to perpetuate biases and stereotypes, impacting employment (Mattas, 2023).

ChatGPT is a tool, and like any tool, it can be used for good or bad. By implementing proper guidelines and fostering responsible usage, educators and students can maximize the benefits of ChatGPT while minimizing its potential downsides. Here are some key aspects to consider.

Academic Integrity about Plagiarism and Superficial understanding. ChatGPT can easily generate text that mimics existing content, making it tempting for students to plagiarize. They may copy and paste generated text into their assignments without proper citation, leading to academic dishonesty. ChatGPT can generate answers to complex questions without requiring deep understanding. Students relying solely on it for assignments may skip crucial learning processes and lack actual comprehension of the

subject matter. Study explored the use of Chat GPT among international TESOL students to enhance academic writing, noting positive perceptions of Chat GPT but also identifying limitations, including occasional inaccuracies and plagiarism concerns (Gervacio, 2023). Additionally, a study used the SWOT analysis framework to outline the strengths, weaknesses, opportunities, and threats of Chat GPT in education, highlighting the tool's potential benefits and weaknesses, including a lack of deep understanding and the risk of plagiarism (Chairunnisa, 2023).

Critical Thinking and Creativity about Overreliance and Lack of originality. Overdependence on ChatGPT for homework and research can hinder students' development of critical thinking skills. They may lose the ability to analyze information, form their own opinions, and solve problems independently. ChatGPT primarily works by adapting existing content, stifling students' creativity and originality. They may become accustomed to regurgitating information instead of developing their own unique ideas and perspectives.

Mental Health and Wellbeing about Information overload and Procrastination. The vast amount of information generated by ChatGPT can be overwhelming for some students, leading to stress and anxiety. The ease of obtaining answers through ChatGPT might encourage procrastination, as students delay doing actual work until the last minute. This can lead to further stress and poor performance. One study explored the potential impact of Chat GPT on student well-being in the smart education university learning environment, highlighting the need for further research and empirical studies to validate and expand upon initial findings (Abdillah et al., 2023).

ChatGPT is not a replacement for human judgment and critical thinking. trustworthy sources and proper attribution to maintain ethical research practices. Some helpful aspects for using ChatGPT responsibly: (1) Treat Chat GPT as a research assistant, not a shortcut to gather information and explore different perspectives, but never directly copy its outputs; (2) Develop critical thinking skills to analyze information, identify biases, and form your own conclusions; (3) Focus on understanding, not memorization. Don't just absorb information from ChatGPT, actively engage with it and try to connect the dots. (4) Maintain academic integrity. Always cite your sources, including any information obtained from ChatGPT; (5) Communicate openly with educators.

Once, technology is created to facilitate activities and help to solve problems more quickly and efficiently. All activities such as presenting material, completing assignments, and checking student progress and assessments become effortless with the help of technology. Consequently, activities in the classroom and development of technology become challenges as well as opportunities to improve skills together with attention to the correctness of technological information.

CONCLUSION

The data presented above showed the overview of the use of Artificial Intelligence of Chat GPT in Student Learning Experience in Gen-Z class. A total of 92,34% students utilize Chat GPT and less than 7,66% apply AI face Recognition and Voice Recognition. It can be assumed that students employ AI to accomplish their activities in class such as discussion, presentation, and doing homework.

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