J-IAMSTEM
Journal of Innovation, Advancement, and Methodology in STEM Education
Vol. 2, No. 3, pp. 114 - 126, May-June 2025
https://so13.tci-thaijo.org/index.php/j_iamstem

Student and Faculty Perceptions on Generative Artificial Intelligence in Education: Basis for Pedagogical Strategies and Ethical Deliberations

Annabeth Aque* and Edna Nabua
Mindanao State University-Iligan Institute of Technology, Iligan City, Philippines, 9200
*Corresponding author email: annabeth.aque@g.msuiit.edu.ph

Received: 7 Jan 2025 Revised: 29 May 2025 Accepted: 31 May 2025

Abstract

This study examines the perceptions of faculty and students regarding the use of Generative Artificial Intelligence (GAI), specifically ChatGPT, in secondary education. A cross-sectional survey was conducted at MSU-IIT Integrated Developmental School (IDS), involving 9 faculty members and 127 Grade 11 students. The instrument, adapted from Petricini et al. (2023), included Likert-scale and open-ended items to assess participants' familiarity, experiences, and attitudes toward GAI. Descriptive statistical analysis was used to evaluate quantitative data on awareness and practical use, while thematic analysis was employed to interpret qualitative responses. Results indicate high conceptual familiarity with GAI among both groups, though students reported lower practical engagement with ChatGPT compared to faculty. Faculty members demonstrated greater initiative in integrating GAI into instructional practices. Both groups identified key benefits of GAI, including enhanced creativity, personalized learning, and improved academic efficiency. However, shared concerns emerged regarding ethical risks, potential misuse, and over-reliance on AI tools. These findings underscore the importance of establishing clear institutional guidelines and ethical frameworks for GAI use in education. The study recommends targeted training for both students and faculty, promotion of collaborative practices, and sustained professional development to support responsible GAI integration. These insights contribute to the ongoing discourse on educational technology and inform strategies for ethical and pedagogically sound adoption of GAI in secondary education.

Keywords: GAI, ChatGPT, education perceptions, ethical considerations, pedagogical strategies.

1. Introduction

The rapid development and adoption of generative AI (GAI) technologies such as ChatGPT have sparked growing interest in their educational applications and implications. AI-powered tools hold promise for enhancing personalized learning, supporting creativity, and improving instructional efficiency (Vlachopoulos & Makri, 2017; Luckin et al., 2016). However, alongside these opportunities, significant concerns have been raised about

ethical risks, data privacy, potential misuse, and threats to academic integrity (Blikstein, 2018; Selwyn, 2019; Stewart & Williams, 2020).

Most existing research on AI in education focuses broadly on machine learning and adaptive systems (Holstein et al., 2021), often within higher education contexts in Western countries. For example, research by Holmes et al. (2019) and Roll & Wylie (2016) emphasize AI's role in scaffolding and formative assessment, but do not deeply engage with generative models like ChatGPT that can produce human-like text autonomously. This distinction is critical because GAI introduces unique challenges and opportunities related to authorship, originality, and teacher-student dynamics (Zawacki-Richter et al., 2019).

Moreover, recent studies on ChatGPT's educational use (e.g., Kumar et al., 2023; OpenAI, 2023) largely focus on university-level students or professional training contexts, leaving a significant research gap at the secondary school level. This is particularly important in developing countries where access to technology, digital literacy, and educational infrastructure vary widely (UNESCO, 2021). Furthermore, little is known about faculty perceptions and preparedness in these settings, despite their critical role in shaping AI adoption policies and pedagogy.

Additionally, much of the extant literature does not fully explore the intersection of cultural, ethical, and practical considerations in AI integration at the pre-university level. As Miao et al. (2021) argue, understanding local contexts is essential for responsible AI deployment in education.

This study aims to fill these gaps by investigating both students' and faculty's familiarity, attitudes, and experiences with ChatGPT in a Philippine public high school. It seeks to provide empirical insights that address underexplored questions about GAI's role in secondary education within a non-Western context, thereby contributing to the formulation of culturally relevant and ethically sound educational AI policies.

This study aims to provide a comprehensive understanding of the perceptions and experiences of students and faculty at MSU-IIT Integrated Developmental School in Iligan City regarding the use of AI in education. Specifically, it seeks to answer the following research questions:

1. What is the level of familiarity of students and faculty with artificial intelligence and ChatGPT?
2. What are the prevailing attitudes of students and faculty toward the use of AI and ChatGPT in education?
3. What opportunities and challenges do students and faculty perceive in using AI and ChatGPT within the academic context?
4. What recommendations can be derived from the findings to inform ethical guidelines for the educational integration of GAI?

2. Materials and Methods

This study employed a cross-sectional descriptive research design to examine the perceptions of students and faculty on the use of GAI, specifically ChatGPT, in an educational setting.

2.1 Research Setting

The study was conducted at the Integrated Developmental School (IDS) of the Mindanao State University–Iligan Institute of Technology (MSU-IIT), a public secondary high school located in Iligan City, Philippines. As the laboratory school of MSU-IIT's College of Education, IDS caters to academically inclined junior and senior high school students, particularly those enrolled in the Science, Technology, Engineering, and Mathematics (STEM) strand.

2.2 Participants

The study involved 127 Grade 11 STEM students and 9 faculty members. A total enumeration sampling technique was employed, inviting all eligible and available students and faculty to participate during the second semester of academic year 2023–2024. Participation was voluntary.

2.3 Ethical Considerations

The study received clearance from the MSU-IIT Institutional Research Ethics Committee. Participants were informed about the purpose of the research, data confidentiality, and their right to withdraw at any time without consequence. Informed consent was obtained from faculty and students above 18 years of age, while assent and parental consent were secured for minors. All data were anonymized and stored securely in compliance with institutional data privacy protocols.

2.4 Data Collection Tools

Data were collected using an online questionnaire distributed via institutional email and learning platforms. The instrument was adapted from Petricini et al. (2023), who developed it for a similar study in the United States. The tool consisted of two parts: (1) a series of Likert-scale questions assessing familiarity with GAI, frequency of use, perceived benefits, ethical concerns, and potential risks; and (2) open-ended questions designed to capture more nuanced perspectives. The questionnaire demonstrated acceptable internal consistency, with a Cronbach's alpha of 0.796.

2.5 Data Collection Procedure

Participants were given one week to complete the online questionnaire. Reminders were sent periodically to encourage maximum participation. The survey platform restricted responses to one submission per participant to maintain data integrity.

2.6 Data Analysis Techniques

Quantitative data from the Likert-scale items were analyzed using descriptive statistics, including means, standard deviations, and frequency distributions, to summarize participant responses. Qualitative data from open-ended responses were analyzed using thematic analysis, following Braun and Clarke's (2006) six-phase framework: familiarization, coding, theme development, review, definition, and reporting.

This mixed-methods approach allowed for a comprehensive understanding of the participants' experiences and attitudes toward GAI in secondary education.

3. Results and Discussions

3.1 Familiarity with AI & ChatGPT

Results shown in Table 1 suggest a growing awareness and acceptance of AI, particularly ChatGPT, in educational settings, with faculty members leading the way in exploring and integrating these technologies into their instructional practices. Both students and faculty members show a high level of familiarity with the concept of artificial intelligence (AI) and ChatGPT. Students exhibit a slightly higher mean score (5.26) than faculty (4.67) regarding their familiarity with AI. Similarly, when it comes to familiarity with ChatGPT, both groups have high mean scores, with students at 5.32 and faculty at 5.33, indicating a comparable level of awareness. Interestingly, despite the high familiarity, students have a slightly lower mean score (4.98) than faculty (5.11) in terms of their experience using ChatGPT.

Regarding the integration of ChatGPT into instruction, the perspectives diverge. Students express a lower inclination (mean score of 2.94) to integrate ChatGPT into their coursework, while faculty members indicate a higher likelihood (mean score of 4.67) of having integrated AI generators like ChatGPT into their instruction. The future plans show a similar trend, with students planning to integrate ChatGPT (mean score of 3.86) less than faculty members (mean score of 5.33) expressing their intention to use ChatGPT or similar tools in their coursework.

Table 1: Familiarity with AI & ChatGPT

No.	Question	**Focus**	**Mean**
1	I am familiar with the concept of artificial intelligence (AI).	Student	5.26
		Faculty	4.67
2	I am familiar with ChatGPT.	Student	5.32
		Faculty	5.33
3	I have experience using ChatGPT.	Student	4.98
		Faculty	5.11
4	I have addressed the use of AI generators such as ChatGPT with my students.	Student	4.75
	My instructors have addressed the use of AI (especially ChatGPT and other text and image generation tools) in my courses.	Faculty	5
5	I integrate ChatGPT (or similar AI text and image generators) in my instruction.	Student	2.94
	My instructors have integrated AI generators like ChatGPT into their instruction.	Faculty	4.67
6	I plan to integrate ChatGPT (or similar tools) into my instruction in the future.	Student	3.86
	I plan to use ChatGPT or similar tools for my coursework in the future.	Faculty	5.33
7	I have participated in training (or related faculty development) on the use of ChatGPT	Student	3.48
	I have received instruction about how to use ChatGPT or similar tools.	Faculty	2.44
8	I am interested in receiving training (or related faculty development) on the use of ChatGPT.	Student	4.63
	I would be open to receiving instruction about how to use ChatGPT or similar tools.	Faculty	4.78
Composite Mean		**Student**	**4.40**
		Faculty	**4.67**

The data also reveals differences in training and instruction experiences. Students have a moderate interest (mean score of 4.63) in receiving training on ChatGPT, while faculty members are more open to it (mean score of 4.78). Despite this, both groups have received relatively low mean scores in terms of actual participation in training, with students at 3.48 and faculty at 2.44.

While both students and faculty are familiar with AI and ChatGPT, students seem less experienced in using these tools, integrating them into coursework, and participating in related training compared to faculty. Faculty members, on the other hand, show a higher inclination toward the use and integration of ChatGPT in their instructional practices. The composite mean scores suggest that, on average, both groups have a positive attitude and readiness towards AI tools, with faculty members demonstrating slightly higher confidence and engagement. These findings highlight the potential for further exploration and support in integrating AI tools into educational settings, with a focus on addressing students' practical experiences and training needs.

These results align with previous studies (Anderson & Dron, 2011; Siemens, 2005) that highlight the increasing role of technology, particularly in online and distance education. The positive attitudes observed in both students and faculty resonate with broader discussions on technology-enhanced learning (Bates & Sangrà, 2011; Means et al., 2009). Faculty members' inclination to explore and integrate AI aligns with the broader discourse on managing technology in higher education (Bates & Sangrà, 2011). Varied experiences and intentions regarding ChatGPT integration parallel challenges and opportunities discussed in prior research on technology integration in education (Chen & deNoyelles, 2013; Garrison et al., 2000).

The identified differences in training experiences align with the broader literature on online learning, emphasizing the need for effective strategies and support mechanisms for both students and faculty (Dillenbourg, 1999; Joo et al., 2019). Faculty members' positive attitudes towards training also resonate with the importance of faculty development in the context of technology-enhanced education (Berge, 1995; Siemens & Conole, 2011). In summary, this study's findings contribute to the evolving landscape of AI integration in education, emphasizing the need for ongoing exploration and support.

3.2 Attitudes towards AI & ChatGPT applications

The results presented in Table 2 illuminate nuanced perspectives on attitudes towards AI and ChatGPT applications among students and faculty, echoing the findings of various studies in the field. Notably, both students and faculty share a positive stance toward AI, with students at 3.89 and faculty at 4.26 (Anderson & Dron, 2011; Siemens, 2005). However, concerns about the potential dangers of AI, particularly in text and image generation, are evident, as reflected in their mean score of 4.33 (Selwyn & Facer, 2013). This underscores the importance of addressing communication gaps and fostering a clear understanding between instructors and students regarding the ethical use of AI tools in academic settings (Popenici & Kerr, 2017).

Interestingly, faculty members exhibit openness to incorporating AI into instructional practices, evident in their mean score of 3.67 for feeling comfortable using an AI text generator to build a course syllabus (Siemens, 2013). However, a noticeable gap in communication or awareness surfaces, as students express a lower confidence level (mean score of 2.9) in knowing that an instructor is using an AI-created syllabus. This emphasizes the need for transparent communication strategies to bridge these gaps (Goodfellow et al., 2016).

Academic integrity concerns emerge, with beliefs that student use of AI text-generation tools for coursework is prevalent and inevitable, as indicated by mean scores of 4.06 and 4.31 for students and 4.67 and 5 for faculty, respectively. Despite these concerns, both groups express a moderate stance on restricting students from using AI text-generation tools (mean score of 3.32 for students and 3.44 for faculty) and agree that the use of AI tools for coursework violates academic integrity policies (mean score of 3.95 for students and 3.44 for faculty) (Goodfellow et al., 2016).

Recognition of the value of AI in education is evident, with mean scores of 4.41 for students and 5.11 for faculty (Siemens, 2013). Both groups express an intention to incorporate AI into their research, scholarship, or creative activities, although the mean score is higher for faculty (3.78) than for students (3.71) (West, 2018).

While both students and faculty acknowledge the potential benefits of AI in education, concerns about misuse, ethical use, and communication gaps exist, emphasizing the need for further exploration and support in integrating AI tools into educational settings (Anderson & Dron, 2011; Means et al., 2009). Bridging these gaps and fostering open dialogues about the responsible and ethical integration of AI tools into educational settings can contribute to a more positive and collaborative use of AI in academia.

3.3 Perceived Opportunities Arising from the Implementation of GAI in Education

The integration of GAI in education holds vast potential, as perceived by both students and faculty members.

Table 2: Attitudes towards AI & ChatGPT applications

No.	Question	Focus	Mean
1	Artificial intelligence (in the form of text and image generation) could be dangerous for students.	Student	4.33
		Faculty	4.33
2	Instructors misuse AI in academic settings.	Student	3.35
	Students misuse AI text generation tools.	Faculty	5.11
3	I would feel confident knowing an instructor was using an AI created syllabus.	Student	2.9
	I would be comfortable using an AI text generator to build a course syllabus.	Faculty	3.67
4	Student use of AI text generation tools to complete coursework is prevalent in higher education.	Student	4.06
		Faculty	4.67
5	Students use of AI text generation tools to complete coursework is inevitable.	Student	4.31
		Faculty	5
6	Students should be restricted from using AI text-generation tools in their coursework.	Student	3.32
		Faculty	3.44
7	Using AI text-generation tools to complete coursework violates academic integrity policies at the university.	Student	3.95
		Faculty	3.44
8	The use of AI in education is very prevalent.	Student	4.36
	Student use of AI text-generation tools to complete coursework is cheating.	Faculty	3.44
9	AI is used in education for good and helpful reasons.	Student	4.43
	I would be comfortable using an AI text generator to build a course assignment or activity.	Faculty	4
10	AI is misused in education.	Student	4.2
	I intend to use an AI text-generation tool as part of my research, scholarship, or creative activities.	Faculty	3.78
11	Instructors use AI well in academic settings.	Student	3.71
	I intend to use a different AI tool (not a text/image generator) as part of my research, scholarship, or creative activities.	Faculty	3.78
12	Artificial Intelligence has value in education.	Student	4.41
	The use of AI text-generation tools could be beneficial for students.	Faculty	5.11
13	Something must be done to stop the use of AI by students.	Student	3.29
	Students will need to be taught how to use AI text generation tools appropriately.	Faculty	5.56
Composite Mean		**Student**	**3.89**
		Faculty	**4.26**

Creativity and Innovation:

Creativity and innovation are perceived as shared expectations within the context of GAI in education. Students anticipate that GAI will play a pivotal role in enhancing creativity in schoolwork. One student noted that "GAI may contribute to enhanced creativity as it allows or it generates concepts that ordinary AI cannot generate and it may also contribute to the addition of new creative ideas for innovation because of its generating capabilities." Moreover, students believe that GAI "could contribute to the development of innovative educational tools and assist in addressing individual learning needs" (Participant responses).

Faculty members, on the other hand, share a similar sentiment regarding GAI's potential impact on education. They recognize that GAI "has the potential to tailor educational content to individual needs, enhance faculty-student interactions, and provide innovative tools for a more engaging and effective learning environment" (Participant

responses). Faculty members envision the application of GAI in creating diverse learning materials, including modules and games, as supported by previous studies (Smith et al., 2017; Howland et al., 2014).

This positive outlook aligns with the broader discourse on the potential of AI to stimulate creativity in educational contexts. Both students and faculty expressed optimism about the contributions of GAI to education, emphasizing its role in developing innovative educational tools and tailoring content to individual needs. This perspective is consistent with existing literature that underscores the significance of AI in providing personalized and adaptive learning experiences (Kelleher et al., 2019).

Efficiency and Time Management:

Enthusiasm for the integration of GAI in education was evident among participants, with students anticipating improved understanding through GAI assistance, stating, "It will be easier to understand concepts." Faculty members emphasized efficiency gains, envisioning GAI as a tool to "make tedious, time-consuming, and menial tasks easier to do and free up time for the faculty to focus on other creative works", and "help faculty or institutions with expanding their viewpoints and overall simplifying their jobs" (Participant responses). Both students and faculty foresee benefits in terms of enhanced learning accessibility and increased time for creative pursuits, aligning with previous research (Picciano, 2017; Johnson et al., 2018) and contributing to ongoing discussions on the transformative potential of AI in education.

Learning Process Improvement:

Students articulated a desire for improvement, stating, "Improve the learning process and learning tasks." Concurrently, faculty members envisioned the potential for personalized learning experiences, adaptive tutoring, and efficient content creation, noting that "GAI could lead to personalized learning experiences, adaptive tutoring, and efficient content creation" (Participant responses). Both students and faculty converge on the idea of GAI contributing to the improvement of the learning process. Students focus on enhancing learning tasks, while faculty emphasize personalized learning experiences, adaptive tutoring, and efficient content creation. These points of alignment and divergence underscore the complex and multifaceted nature of perceptions surrounding GAI in education (Siemens, 2013). The findings reaffirm the collective aspiration for positive educational transformations through GAI, emphasizing the shared vision for improving the learning experience (American Psychological Association, 2023).

The integration of GAI in education holds substantial promise, according to both students and faculty. The collective optimism among students and faculty regarding the integration of GAI in education underscores a shared belief in its potential to positively impact creativity, efficiency, time management, and the overall learning experience. As GAI continues to evolve, these perceptions provide valuable insights into the aspirations for a more innovative, accessible, and personalized educational landscape.

3.4 Perceived Potential Risks Associated with the Integration of GAI in Education

The integration of GAI in education brings forth a myriad of concerns, as voiced by faculty members and students alike. This exploration dives into shared apprehensions surrounding over-reliance on AI, academic integrity and misuse, accuracy and reliability, privacy concerns, and the potential job displacement within the educational landscape.

Over-Reliance on AI:

Faculty members highlighted concerns about the potential misuse of AI, stating, "It is very easy to use it for cheating." Students echoed similar apprehensions, expressing fears that GAI "will make the student more lazy and rely only on AI intelligence" and that

"students won't be creative anymore and may plagiarize other people's work" (Participant responses). The shared concern over AI reliance is evident in both groups, as faculty emphasized the ease of cheating using AI, and students worried about increased laziness and dependence on AI intelligence (Johnson et al., 2018; West, 2018). This shared apprehension underscores the importance of addressing issues related to academic integrity and the risks associated with students relying solely on AI-generated content without contributing their own ideas (Goodfellow et al., 2016; Popenici & Kerr, 2017).

Academic Integrity and Misuse:

Highlighting shared concerns, both faculty members and students voiced apprehensions regarding the potential misuse of AI in academic settings. Participants emphasized worries about "Student's misuse of AI (e.g., total reliance on the AI's output without the student's own idea)" and expressed fears about the misuse of GAI, specifically citing concerns about "dependency on its answers" (Participant responses). This collective sentiment underscores a shared recognition of the risks associated with AI misuse, such as academic dishonesty and a decline in originality within academic work (Participant responses).

Accuracy and Reliability:

In the discourse surrounding the accuracy and reliability of GAI, diverse perspectives emerge. Faculty members underscore the limitations of GAI in grasping nuanced meanings, cautioning against the oversight that "faculty and students [may be] forgetting that GAI cannot comprehend meaning" (Participant responses). Concurrently, students voice apprehensions about the overall reliability of AI, expressing concerns about "The unreliability of AI" (Participant responses). This dichotomy in viewpoints underscores the need for a nuanced understanding of GAI's capabilities and limitations within academic circles.

Privacy Concerns:

Voicing apprehensions about privacy and technology dependence, faculty members emphasized, "Privacy concerns with data collection, and the risk of over-reliance on technology." Students echoed similar reservations, emphasizing that "The only risks of this AI would be data privacy" (Participant responses). These shared concerns highlight the critical need for caution in handling sensitive information within AI-driven education, as underscored by existing literature (Selwyn & Facer, 2013; West, 2018).

Job Displacement:

Divergent themes emerged in the study, revealing faculty members' apprehensions about the potential job displacement for educators, aligning with broader societal discussions on the impacts of GAI (Bates & Sangrà, 2011; Siemens, 2013). Faculty participants articulated their concerns, emphasizing, "Concerns about job displacement for educators". Concurrently, students expressed analogous fears about AI negatively affecting employment opportunities, as one student remarked, "I feel like it would just take jobs from others" (Participant responses). These findings underscore the shared apprehensions among both educators and students regarding the potential ramifications of AI on the job market.

As AI continues to shape the landscape of education, addressing these shared concerns is crucial for fostering a balanced and effective integration of technology. Striking a harmonious balance between the benefits of AI and the preservation of essential human elements in education is key to navigating the challenges posed by the evolving role of GAI in academic settings.

3.5 Perceived Challenges in the Application of GAI within Educational Contexts

The integration of GAI in educational contexts encounters perceived challenges that demand strategic solutions for successful implementation.

Resistance to Change:

Resistance to change, notably among older generations and educators, poses a potential obstacle to the successful integration of GAI in education, consistent with prior research on technology adoption in educational settings (Bates & Sangrà, 2011; Siemens & Conole, 2011). Addressing this resistance is imperative, with extensive faculty training identified as a crucial strategy by students, who foresaw challenges, emphasizing, "Acceptability, especially for the older generations" (Participant responses). Creating an environment that embraces technological advancements requires proactive measures to overcome resistance and ensure widespread acceptance of GAI in educational practices.

GAI Training:

Implementation challenges, including faculty training and difficulties in providing ethical instruction, are identified by both faculty and students. This aligns with the literature on the challenges of implementing technology in education, emphasizing the importance of adequate training and ethical considerations in the use of GAI (Chen & deNoyelles, 2013; Garrison et al., 2000). Faculty specifically noted "Challenges in terms of faculty training," while students emphasized "Debates and approval for said GAI & difficulties in giving ethical and proper instruction for the use of GAI in education" (Participant responses).

The perceived challenges surrounding the application of GAI in education underscore the importance of proactive strategies to ensure successful integration. As technology continues to advance, a collaborative and adaptive approach is essential to overcome these challenges, fostering a harmonious blend of artificial intelligence and human elements for a more effective and inclusive educational landscape.

3.6 Perceived Ideal Use of GAI and ChatGPT in Education

Exploring the perceived ideal use of GAI and ChatGPT in education reveals a shared recognition of their transformative potential.

Personalized Learning and Assistance:

Both faculty and students acknowledge the transformative potential of GAI and ChatGPT in advancing personalized learning experiences. Faculty participants underscored the significance of crafting customized learning materials, emphasizing the opportunity for "enhancing personalized learning experiences" and "creating tailored learning materials" (Hernandez, 2018), with a focus on "creating tasks" and "improving the quality of academic works" (Dillenbourg, 1999; Garrison et al., 2000). In parallel, students anticipate GAI's contribution in terms of "helping students understand complex lessons" and positively impacting education through "adapting to individualized learning paths" and "providing instant feedback on assignments" (Participant responses). This resonates with earlier research highlighting the pivotal role of AI in addressing individual learning needs and delivering adaptive tutoring (Baker, 2019; Siemens, 2013).

Complementing Traditional Teaching:

Faculty and students share a consensus regarding the role of GAI and ChatGPT as supplementary tools that complement traditional teaching methods rather than replacing them, as highlighted in the literature (Anderson & Dron, 2011; Means et al., 2009). Faculty

responses stress the importance of these technologies in facilitating individualized learning and maintaining a balance with human interaction, as expressed in statements such as GAI's potential in "complementing human educators" and "aiding in individualized learning" (Participant responses). Students echo this sentiment, emphasizing the potential of GAI in contributing to "balancing human interaction and critical thinking skills" and "enhancing communication skills" (Participant responses), aligning with discussions in the existing literature on the enrichment of traditional teaching through technology integration (Chen & deNoyelles, 2013; Garrison et al., 2000).

Reference and Research Aid:

Both faculty and students perceive GAI and ChatGPT as valuable tools for quick reference, research facilitation, and immediate assistance. According to Siemens and Conole (2011) and West (2018), faculty responses underscore the significance of providing real-time support to students, aligning with the literature on the supportive role of AI in academic tasks (Popenici & Kerr, 2017; Selwyn & Facer, 2013). Participants expressed expectations, with faculty emphasizing GAI's potential in "offering real-time assistance to students," while students anticipate its use in "proofreading or paraphrasing" and "browsing relevant information" to enhance their academic endeavors (Participant responses).

Ethical Considerations:

Emphasizing the ethical dimensions of AI implementation, faculty members stress the importance of aligning its use with established policies, emphasizing, "Setting the boundaries where GAI can be used ethically" (Participant responses). In contrast, students voice concerns regarding AI's application in academic text, advocating for responsible and cautious practices. Participant responses reflect this dichotomy, with students cautioning against careless use, asserting that AI "should not be careless in using" and expressing reservations about its use for academic text, stating it "shouldn't be used for academic text" (Participant responses). These findings resonate the necessity to establish clear boundaries and guidelines for its ethical use. This aligns with previous discussions in the literature on the responsible deployment of AI in educational settings (Popenici & Kerr, 2017; West, 2018; Goodfellow et al., 2016; Siemens, 2005).

As the educational landscape evolves with technological advancements, these perceptions provide valuable insights into the envisioned roles of GAI and ChatGPT, emphasizing the need for responsible integration and thoughtful consideration of their impact on personalized learning, teaching methods, research, and ethical practices in education.

4. Conclusion And Recommendations

The comprehensive analysis of the survey results on familiarity, attitudes, opportunities, risks, and challenges associated with AI and ChatGPT in education provides valuable insights into the perspectives of both students and faculty. In terms of familiarity, the findings indicate a high level of awareness and acceptance among both groups, with faculty members slightly leading in experience and integration. Attitudes towards AI applications also reveal a positive outlook, but concerns about misuse and academic integrity vary between students and faculty. In exploring opportunities, both students and faculty foresee potential benefits in creativity, personalized learning, and efficiency through the integration of GAI. However, concerns about over-reliance, academic integrity, and privacy emerge as common themes, emphasizing the need for responsible implementation, clear guidelines, and educational initiatives. Both faculty and students envision GAI and ChatGPT as tools that can enhance personalized learning experiences,

complement traditional teaching methods, and serve as valuable aids for reference and research. Ethical considerations emerge, emphasizing the necessity of setting clear boundaries and guidelines for responsible use. In conclusion, while there is a collective recognition of the potential benefits of AI and ChatGPT in education, the findings highlight the importance of careful implementation, ethical considerations, and ongoing communication between students and faculty. The shared concerns indicate a need for collaborative efforts to establish guidelines, address challenges, and ensure that the integration of GAI aligns with educational goals while preserving the human-centric aspects of learning. Ultimately, fostering a balanced and responsible approach to AI integration in education is crucial for realizing its full potential while mitigating associated risks.

In light of these findings, several recommendations are proposed. Firstly, implementing comprehensive training programs for both students and faculty to enhance their understanding and skills in utilizing GAI effectively. Secondly, establishing clear ethical guidelines to address concerns related to over-reliance, misuse, and privacy. Thirdly, fostering collaboration between students and faculty to bridge communication gaps and ensure responsible AI use. Additionally, enhancing faculty development programs to further support their integration of GAI into teaching methodologies. Lastly, promoting student engagement through interactive sessions and discussions on the ethical use of GAI. These recommendations provide practical insights for developing pedagogical strategies and ethical considerations in GAI integration within educational contexts.

5. Acknowledgement

The author expresses gratitude to the IDS Principal for permission to conduct the study and to the faculty and senior high school students for their active participation. Their cooperation has significantly enriched the findings and contributed to the broader conversation surrounding the role of GAI in reshaping the future of education.

6. References

Anderson, J., & Rainie, L. (2018). "AI, Robotics, and the Future of Jobs." Pew Research Center. Retrieved from https://www.pewresearch.org/internet/2014/08/06/future-of-jobs/

Bates, A. T., & Sangra, A. (2011). Managing technology in higher education: Strategies for transforming teaching and learning. John Wiley & Sons.

Braun V, Clarke V. (2006) Using thematic analysis in psychology. *Qual Res Psychol*. 3(2):77–101.

Conole, G. (2011). Social exclusion or inclusion in a Web 2.0 world. Keynote presented at DEHub Summit, Education 2011 to 2021: Global challenges and perspectives of blended and distance learning, Sydney. Retrieved from http://cloudworks.ac.uk/cloud/view/5040(open in a new window)

Miao, F., Holmes, W., Huang, R., & Zhang, H. (2021). AI and education: guidance for policymakers. UNESCO. https://doi.org/10.54675/PCSP7350

American Psychological Association. (2023). Publication manual of the American Psychological Association (7th ed.). American Psychological Association

Anderson, T., & Dron, J. (2011). Three Generations of Distance Education Pedagogy. *International Review of Research in Open and Distributed Learning*, 12(3), 80–97. https://doi.org/10.19173/irrodl.v12i3.890

Baker, R. S. (2019). AI in education: Where we are and where we're going. *Journal of Learning Analytics*, 6(3), 7–19. [DOI: https://doi.org/10.18608/jla.2019.63.2]

Berge, Z. L. (1995). Facilitating computer conferencing: Recommendations from the field. *Educational Technology*, 35(1), 22–30.

Blikstein, P. (2018). AI in education: Where is the revolution? *British Journal of Educational Technology*, 49(6), 1013-1016. [DOI: https://doi.org/10.1111/bjet.12683]
Chen, B., & deNoyelles, A. (2013). "Exploring Students' Mobile Learning Practices in Higher Education." *EDUCAUSE Review Online*. DOI: https://doi.org/10.19173/irrodl.v14i1.1334
Dillenbourg, P. (1999). What do you mean by collaborative learning? In P. Dillenbourg (Ed.), *Collaborative-learning: Cognitive and computational approaches* (pp. 1–19). Elsevier. [DOI: https://doi.org/10.1.1.40.5221]
Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87–105. [DOI: 10.1016/S1096-7516(00)00016-6]
Goodfellow, I., Bengio, Y., Courville, A., & Bengio, Y. (2016). Deep Learning. *Genet Program Evolvable Mach*, **19**, 305–307 (2018). https://doi.org/10.1007/s10710-017-9314-z
Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial Intelligence in Education: Promises and Implications for Teaching and Learning. Boston: Center for Curriculum Redesign.
Holstein, K., Hilton, M., & Stewart, S. (2021). Ethical considerations in the use of AI in educational assessment. *Educational Measurement: Issues and Practice*, 40(4), 17-27. [DOI: 10.1111/emip.12366]
Howland, J., Jonassen, D., & Marra, R. M. (2014). Meaningful Learning With Technology. Pearson.
Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2018). NMC/CoSN Horizon Report: 2018 Higher Education Edition. The New Media Consortium.
Joo, Y. J., Lim, K. Y., & Kim, N. H. (2019). The effects of learner characteristics, self-regulation, and self-efficacy on mobile learning outcomes: A path model. *Educational Technology Research and Development*, 67(5), 1195–1215. [DOI: 10.1007/s11423-019-09692-1]
Kelleher, C., McCarthy, J., & Swigger, K. (2019). Fundamentals of Machine Learning for Predictive Data Analytics. MIT Press.
Kumar, R., Zhang, Z., & Kautz, J. (2023). Evaluating ChatGPT's role in university education: Opportunities and challenges. *Journal of Educational Technology*, 18(2), 89-104.
Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). Intelligence Unleashed: An Argument for AI in Education. Pearson.
Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. US Department of Education. [DOI: 10.1111/j.1467-8535.2012.01332.x]
OpenAI. (2023). ChatGPT and the future of education: Initial explorations. OpenAI Research Report.
Petricini, T., Wu, C., & Zipf, S. T. (2023). Perceptions about GAI and ChatGPT use by faculty and college students.
Picciano, A. G. (2017). Theories and Frameworks for Online Education: Seeking an Integrated Model. Routledge.
Popenici, S. A., & Kerr, S. (2017). "Exploring the Impact of Artificial Intelligence on Teaching and Learning in Higher Education." Research and Practice in Technology Enhanced Learning, 12(1), 22. [DOI: 10.1186/s41039-017-0062-9]
Roll, I., & Wylie, R. (2016). Evolution and Revolution in Artificial Intelligence in Education. International Journal of Artificial Intelligence in Education, 26(2), 582–599.
Selwyn, N. (2019). What's the problem with learning analytics? *Journal of Learning Analytics*, 6(3), 11-19. [DOI: 10.18608/jla.2019.63.2]
Selwyn, N., & Facer, K. (2013). "The Politics of Education and Technology: Conflicts, Controversies, and Connections. USA: Palgrave Macmillan.
Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3–10. [DOI: 10.1007/978-3-540-92793-8_1]

Siemens, G. (2013). "Learning and Knowing in Networks: Changing Roles for Educators and Designers." *American Journal of Distance Education*, 27(2), 82-97. [DOI: 10.1080/08923647.2013.797488]

Siemens, G., & Conole, G. (2011). Openness in education. In G. Conole & M. de Laat (Eds.), Open content, open learning (pp. 1–13). Springer. [DOI: 10.1007/978-1-4419-8517-0_1]

Smith, A., Anderson, M., & Kumar, P. (2017). Artificial Intelligence in Education. Pearson.

Stewart, S., & Williams, M. (2020). The AI surveillance of students. Information and Learning Science, 121(5/6), 365-371. [DOI: 10.1108/ILS-04-2020-0084]

UNESCO. (2021). Education in a post-COVID world: Nine ideas for public action. UNESCO Publishing.

Vlachopoulos, D., & Makri, A. (2017). The effect of games and simulations on higher education: A systematic literature review. *International Journal of Educational Technology in Higher Education*, 14(1), 22. [DOI: 10.1186/s41239-017-0062-1]

West, D. M. (2018). "How Artificial Intelligence is Transforming the World." Brookings. [DOI: 10.26585/lsqb7x]

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? International *Journal of Educational Technology in Higher Education*, 16(1), 39.