

International Students' Perceptions And Experiences Of Artificial Intelligence Usage In Academic Learning At Northeast Normal University: A Phenomenological Study

Rosemary Damian Kimale*

Northeast Normal University, Changchun City, Jilin province, People's Republic of China

ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative technology in higher education, reshaping teaching, learning, research, and academic communication. International students, in particular, are increasingly relying on AI-powered tools to overcome the linguistic, academic, and cultural challenges they encounter in foreign educational environments. This study explored international students' perceptions and experiences regarding the use of Artificial Intelligence in academic learning at Northeast Normal University, China. A qualitative phenomenological research design was employed to investigate students' lived experiences with AI technologies. Semi-structured interviews were conducted with five international master's students from the Faculty of Education representing Sudan, Rwanda, Cambodia, Zimbabwe, and Sierra Leone. The findings revealed that participants viewed AI positively as a tool that enhances academic efficiency, supports academic writing, facilitates understanding of complex concepts, and improves overall learning experiences. Commonly used AI tools included ChatGPT, Grammarly, Google Gemini, Claude, Deep Seek, and QuillBot. However, participants also identified challenges such as inaccurate information, ethical concerns, plagiarism risks, and excessive dependence on technology. The study recommends that universities establish AI literacy programs, develop institutional policies on responsible AI use, and guide ethical integration of AI in higher education. The findings contribute to the growing body of knowledge on AI adoption among international students and provide practical implications for universities seeking to promote responsible and effective AI utilization.

Keywords: Artificial Intelligence, International Students, Academic Learning, Higher Education, Educational Technology, AI Literacy, Phenomenology.

INTRODUCTION

The twenty-first century has witnessed unprecedented technological advancements that have transformed various sectors of society, including education. Among these innovations, Artificial Intelligence (AI) has emerged as one of the most influential technologies shaping contemporary educational practices. AI refers to computer systems capable of performing tasks that typically require human intelligence, including problem-solving, language processing, decision-making, and content generation. In higher education, AI-powered applications such as ChatGPT, Google Gemini, Grammarly, Deep Seek, Claude, and QuillBot have become increasingly popular among students and educators. The rapid integration of AI into academic environments has created new opportunities for enhancing teaching and

learning processes. AI technologies support students in conducting research, generating ideas, improving writing quality, translating languages, summarizing academic materials, and understanding complex concepts. These capabilities have become particularly valuable for international students who often encounter linguistic, cultural, and academic challenges while studying abroad.

International students often encounter challenges related to language proficiency, unfamiliar educational systems, academic writing standards, and cultural adaptation. AI technologies offer practical solutions to many of these challenges by providing immediate academic assistance and personalized learning support. Consequently, AI has become an increasingly important academic companion for many students pursuing higher education in foreign

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countries. Despite the numerous benefits associated with AI adoption, concerns regarding ethical use, academic integrity, plagiarism, accuracy of information, and overdependence on technology continue to generate debate among educators and policymakers. While some scholars argue that AI enhances educational efficiency and learning outcomes, others caution that excessive reliance on AI may undermine critical thinking, creativity, and independent learning.

The growing use of AI in higher education highlights the need to understand how students perceive and experience these technologies. Understanding students' lived experiences is essential for developing effective institutional policies, promoting responsible AI use, and maximizing educational benefits while minimizing potential risks. This study, therefore, explored international students' perceptions and experiences regarding Artificial Intelligence usage in academic learning at Northeast Normal University. Specifically, the study sought to understand students' perceptions of AI, motivations for using AI tools, experiences with AI-supported learning, challenges encountered, ethical concerns, and recommendations for effective AI integration in higher education.

LITERATURE REVIEW

Artificial Intelligence in Higher Education

Artificial Intelligence (AI) has become a significant force in modern education. Educational institutions worldwide are increasingly adopting AI technologies to improve learning experiences, enhance student engagement, and support academic achievement. AI applications can provide personalized learning experiences, intelligent tutoring systems, automated assessment, and academic support services. According to Kasneci et al. (2023), AI-powered language models have demonstrated considerable potential for supporting educational activities, including writing assistance, content generation, and personalized learning support. These technologies enable students to access information quickly and receive immediate feedback on academic tasks.

Similarly, Tlili et al. (2023) argue that AI-based chatbots have the potential to revolutionize educational practices by facilitating student learning, improving access to knowledge, and supporting

educational equity. However, they emphasize the importance of establishing ethical guidelines to ensure responsible implementation. The emergence of generative AI tools such as ChatGPT, Google Gemini, Claude, and Deep Seek has further accelerated the integration of AI into higher education by providing students with instant access to academic support and information resources.

Higher education institutions are increasingly recognizing AI as a valuable educational tool capable of enhancing teaching effectiveness and student learning outcomes. AI technologies can support adaptive learning, automate administrative tasks, and provide individualized feedback that promotes student success. Consequently, AI has become an essential component of digital transformation strategies in universities across the globe.

AI and International Students' Academic Learning

International students often encounter various challenges when studying abroad, including language barriers, cultural differences, academic adjustment difficulties, and unfamiliar learning environments. These challenges may affect students' academic performance and overall educational experiences. AI technologies have emerged as important tools that help international students overcome these obstacles and improve their learning experiences.

Research indicates that AI-powered applications support international students by providing language translation, grammar correction, writing assistance, and academic guidance (Chan & Hu, 2023). Students can use AI tools to clarify complex concepts, summarize academic materials, and generate ideas for assignments and research projects. Such support is particularly valuable for students studying in a second language, as AI helps improve comprehension and communication skills.

Furthermore, AI contributes to personalized learning by allowing students to learn at their own pace and according to their individual needs. According to Zawacki-Richter et al. (2019), AI systems can provide customized learning experiences that accommodate diverse student backgrounds and learning styles. This flexibility makes AI especially beneficial for international students who require additional support

in adapting to new academic cultures and expectations.

Benefits of AI in Academic Learning

The increasing adoption of AI in higher education has been associated with numerous educational benefits. One of the most widely reported advantages is enhanced learning efficiency. AI tools enable students to access information rapidly, organize ideas effectively, and complete academic tasks within shorter periods. This increased efficiency allows students to devote more time to critical thinking, problem-solving, and deeper engagement with course content.

Another important benefit is the improvement of academic writing and research skills. AI-powered writing assistants can help students refine grammar, improve sentence structure, paraphrase content, and enhance the overall quality of academic work. Studies have shown that students frequently use AI tools to support literature reviews, research planning, and assignment preparation (Dwivedi et al., 2023).

AI also promotes accessibility and inclusivity in education. Students with varying language proficiencies, learning abilities, and educational backgrounds can benefit from AI-supported learning environments. By providing immediate feedback and personalized assistance, AI contributes to greater educational participation and engagement. These advantages suggest that AI has significant potential to improve teaching and learning outcomes in higher education institutions.

Challenges and Limitations of AI Usage in Education

Despite its numerous benefits, AI usage in higher education is not without challenges. One major concern is the accuracy and reliability of AI-generated information. AI systems occasionally produce incorrect, incomplete, or fabricated responses, often referred to as "hallucinations." Such inaccuracies may mislead students if information is accepted without critical evaluation and verification.

Another challenge relates to students' overdependence on AI technologies. Excessive reliance on AI tools may reduce opportunities for

independent learning, critical thinking, and creativity. Holmes et al. (2022) argue that while AI can support learning processes, it should not replace students' active engagement in knowledge construction and problem-solving activities.

Technical limitations also exist. Some AI applications require stable internet connectivity, paid subscriptions, or advanced digital literacy skills, which may not be equally accessible to all students. These barriers can create inequalities in access and usage, particularly among students from developing countries or disadvantaged backgrounds.

Ethical Concerns and Academic Integrity in AI-Supported Learning

The rapid expansion of AI technologies in education has raised significant ethical concerns. One of the most frequently discussed issues is academic integrity. Educators and institutions have expressed concerns that students may misuse AI tools to generate assignments, essays, and research reports without demonstrating their own understanding of the subject matter.

Plagiarism and authorship concerns have become increasingly prominent in discussions surrounding AI in higher education. According to Cotton et al. (2023), the use of generative AI creates uncertainties regarding originality, intellectual ownership, and appropriate attribution of AI-generated content. Universities are therefore challenged to develop policies that clearly define acceptable and unacceptable uses of AI in academic work.

Another ethical concern relates to data privacy and security. Many AI systems collect and process user data, raising questions about confidentiality and the protection of personal information. Educational institutions must ensure that AI technologies comply with ethical standards and data protection regulations. Promoting AI literacy and ethical awareness among students and educators is therefore essential for responsible AI integration in higher education.

Technology Acceptance and AI Adoption Among Students

The Technology Acceptance Model (TAM) provides a useful framework for understanding students'

adoption of AI technologies in education. Developed by Davis (1989), the model suggests that users' acceptance of technology is influenced primarily by perceived usefulness and perceived ease of use. Students are more likely to adopt AI tools when they believe that such technologies improve academic performance and are easy to use.

Recent studies indicate that university students generally demonstrate positive attitudes toward AI because of its ability to simplify academic tasks and enhance learning efficiency (Chiu, 2023). Perceived usefulness often emerges as the strongest predictor of AI adoption, particularly when students experience tangible benefits such as improved academic writing, faster information retrieval, and better learning outcomes.

However, concerns regarding trust, reliability, and ethical implications can influence students' willingness to use AI technologies. Understanding these factors is important for universities seeking to encourage responsible and effective AI integration. The Technology Acceptance Model, therefore, provides a valuable theoretical lens for examining international students' perceptions and experiences regarding AI usage in academic learning.

Risks of Artificial Intelligence in Learning

Despite the growing adoption of Artificial Intelligence (AI) in higher education, several risks continue to raise concerns among educators, researchers, and policymakers. The successful implementation of AI depends heavily on the availability of reliable digital infrastructure, yet disparities in internet connectivity, electricity supply, digital devices, and technological resources may increase educational inequalities by disproportionately benefiting students and institutions with better technological access (UNESCO, 2023; World Bank, 2023). Furthermore, excessive dependence on AI technologies may weaken students' critical thinking, creativity, problem-solving abilities, and self-directed learning skills, as learners may rely heavily on AI-generated responses rather than engaging deeply with academic content (Chan & Hu, 2023).

In addition, AI technologies may unintentionally reinforce existing social inequalities because students

from higher socioeconomic backgrounds often possess greater access to digital resources and AI tools than their disadvantaged counterparts (UNESCO, 2023). Concerns have also been raised regarding the potential reduction of meaningful teacher–student interactions, collaborative learning opportunities, and interpersonal development due to overreliance on AI-supported educational systems (Luckin, 2018). Moreover, AI platforms frequently collect and process large volumes of user data, exposing students to risks such as privacy violations, misinformation, algorithmic bias, unauthorized data use, and cybersecurity threats, particularly in contexts where AI governance and data protection frameworks remain underdeveloped (UNESCO, 2023). These risks highlight the importance of responsible AI integration and effective institutional policies that balance technological innovation with educational quality and academic integrity.

Research Gap

Although the literature demonstrates the growing importance of Artificial Intelligence in higher education, several important gaps remain. Existing studies have largely focused on the benefits, challenges, and adoption of AI technologies, while limited attention has been given to students' lived experiences, perceptions, and educational outcomes associated with AI use in specific educational contexts (Holmes et al., 2022). Furthermore, there is insufficient research examining the psychological effects of AI adoption on students, particularly with regard to motivation, self-efficacy, academic confidence, and independent learning (Chan & Hu, 2023).

The literature also provides a limited understanding of how socioeconomic status, geographical location, and digital literacy influence students' access to and utilization of AI technologies, thereby contributing to what has been described as the emerging “AI divide” (UNESCO, 2023). Additionally, more research is needed to understand how AI influences classroom relationships, student engagement, teacher–student interaction, and the evolving role of educators in technology-supported learning environments (Luckin, 2018). Finally, there remains a shortage of empirical studies addressing institutional preparedness, ethical AI governance, data protection,

and digital safety within higher education settings (UNESCO, 2023). These gaps justify the need for further investigation into international students' perceptions and experiences of AI usage in academic learning at Northeast Normal University.

METHODOLOGY

Research Design

This study adopted a qualitative phenomenological research design. Phenomenology focuses on understanding individuals' lived experiences and the meanings they attach to those experiences. The design was considered appropriate because the study sought to explore international students' personal experiences and perceptions regarding AI usage in academic learning.

Participants

Five international master's students from the Faculty of Education at Northeast Normal University participated in the study. The participants represented diverse cultural and geographical backgrounds, including Sudan, Rwanda, Cambodia, Zimbabwe, and Sierra Leone.

All participants were first-year master's students who had studied at the university for approximately eight months. Their experiences provided valuable insights into AI usage among international students adapting to a new educational environment.

Data Collection

Data were collected through semi-structured face-to-face interviews conducted between 19 and 21 May 2026. The interviews lasted between five and ten minutes and were conducted within the Education Building at Northeast Normal University.

The interview guide included questions focusing on:

- Types of AI tools used.
- Perceptions of AI in academic learning.
- Motivations for AI usage.
- Academic experiences with AI.
- Challenges encountered.

- Ethical concerns.
- Recommendations for universities.

All participants voluntarily participated and consented to video recording.

Data Analysis

Thematic analysis was employed to analyze the interview data. Responses were organized into categories and themes based on recurring patterns and meanings. The coding process generated seven major themes:

1. Perceptions of AI usage.
2. Motivation for AI usage.
3. Lived experiences.
4. Challenges of AI usage.
5. Ethical concerns.
6. Institutional perceptions.
7. Recommendations.

Findings

1: Positive Perceptions of AI Usage

The findings revealed overwhelmingly positive perceptions of AI among participants. Students viewed AI as a valuable academic support tool that simplifies learning activities and improves efficiency.

Participants reported that AI helps them perform academic tasks more effectively, particularly in areas such as information searching, grammar correction, paraphrasing, summarization, and idea generation. Several participants explained that AI reduces the complexity of academic work and improves their confidence when completing assignments.

The findings suggest that international students perceive AI as an important educational resource capable of enhancing learning experiences and academic performance.

2: Motivation for AI Usage

Participants identified several motivations for using AI technologies. The most common motivation was

time-saving. Students explained that AI allows them to complete assignments more quickly than traditional research methods.

Another significant motivation was improving assignment quality. AI tools help students organize ideas, refine writing, and generate useful academic content. Participants noted that these benefits contribute to improved academic outcomes.

The findings demonstrate that efficiency and academic enhancement are key factors driving AI adoption among international students.

3: Lived Experiences with AI

Students reported diverse experiences with AI-supported learning. Most participants regularly used multiple AI applications depending on specific academic needs.

AI was commonly used for:

- Academic writing.
- Research assistance.
- Presentation preparation.
- Language support.
- Understanding difficult concepts.
- Summarizing academic literature.

Participants described AI as an academic companion that supports learning throughout their educational journey.

4: Challenges Associated with AI Usage

Despite positive experiences, participants identified several challenges. The most frequently mentioned issue was information accuracy. Students reported that AI sometimes produces incorrect or misleading information. Consequently, they emphasized the importance of verifying AI-generated content before using it in academic assignments.

Participants also noted inconsistencies among different AI platforms. Receiving conflicting responses from multiple tools occasionally created confusion and uncertainty.

5: Ethical Concerns

Ethical issues emerged as a major theme. Participants expressed concerns about excessive dependence on AI and its potential impact on creativity and critical thinking. Students emphasized that AI should complement human intelligence rather than replace it. They stressed the importance of editing, reviewing, and critically evaluating AI-generated content before submission. Participants also highlighted the need for transparency when using AI in academic work.

6: Institutional Perceptions

The findings revealed differing opinions among lecturers regarding AI usage, some lecturers encouraged AI integration and viewed technology as an inevitable aspect of educational development. Others expressed concerns regarding plagiarism, academic dishonesty, and overreliance on AI systems, these differing perspectives illustrate the ongoing debate surrounding AI implementation in higher education.

7: Recommendations for Effective AI Integration

Participants recommended that universities develop AI literacy programs to educate students about responsible AI usage; they also suggested the establishment of institutional guidelines and policies addressing ethical AI practices. Participants believed that educators should teach students how to use AI responsibly rather than discouraging its use altogether.

DISCUSSION

The findings demonstrate that AI has become an integral component of academic learning among international students. Consistent with previous studies, participants reported numerous educational benefits associated with AI technologies, including enhanced learning efficiency, improved writing quality, and increased access to information.

The positive perceptions identified in this study support existing literature suggesting that AI can serve as an effective educational support system. International students appear to benefit particularly from AI's ability to address language-related challenges and facilitate academic adaptation.

However, the findings also highlight important concerns regarding information reliability and ethical usage. Participants recognized that AI-generated content requires careful evaluation and verification. This finding aligns with scholarly arguments emphasizing the necessity of critical digital literacy skills in AI-supported learning environments.

The study further revealed concerns about excessive dependence on AI. Participants feared that overreliance on technology could reduce creativity, independent thinking, and research skills. These concerns suggest that educational institutions should encourage balanced AI usage that promotes both technological innovation and intellectual development.

The mixed perceptions among lecturers indicate a need for institutional dialogue regarding AI integration. Universities must develop clear policies that support innovation while safeguarding academic integrity.

Implications for Higher Education

The findings have several implications for higher education institutions.

First, universities should invest in AI literacy education programs to ensure students understand both the opportunities and limitations of AI technologies.

Second, institutions should establish clear guidelines regarding ethical AI usage, including transparency, attribution, and responsible academic practices.

Third, educators should receive professional development opportunities related to AI integration in teaching and learning.

Finally, universities should promote critical thinking and information evaluation skills to help students effectively navigate AI-generated content.

CONCLUSION

This study explored international students' perceptions and experiences regarding Artificial Intelligence usage in academic learning at Northeast Normal University. The findings revealed that students generally perceive AI positively and view it

as a valuable academic support tool. AI technologies assist students in academic writing, research, language support, information retrieval, and concept comprehension. These benefits contribute significantly to improved learning efficiency and academic productivity. Nevertheless, concerns regarding information accuracy, ethical responsibility, plagiarism, and overdependence remain important considerations. Students acknowledged the importance of critical thinking, verification of information, and responsible AI use. The study concludes that AI possesses significant potential to enhance higher education when integrated responsibly and ethically. Universities should therefore provide AI literacy education, develop institutional policies, and promote responsible AI practices that maximize educational benefits while preserving academic integrity.

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