

Read Input Text 1, take notes and check comprehension in preparation for the ESACb Reading into Writing Exam. Remember that you will have to paraphrase ideas that you decide to use.

Input Text 1

The Impact of Artificial Intelligence (AI) on Student Learning in Higher Education

Overview

The recent **advancement** of Artificial Intelligence (AI) has significantly influenced university learning. Students in higher education use AI for translation, idea generation, writing, and personalised learning. AI-powered tools, such as ChatGPT, offer numerous benefits that improve the efficiency and quality of student learning. However, they also raise concerns about over reliance on AI and the type of AI use adopted by students as this can impact the quality and depth of their learning and assessment outcomes. As AI continues to evolve, this article explores key benefits of AI for undergraduates, concerns of educators, and potential future directions in the context of university education.

Benefits to Student Learning

1. Enhanced Academic Writing

One of the significant advantages of AI is its ability to **enhance** academic writing by improving grammar, vocabulary, and overall writing quality. Tools such as Grammarly and ChatGPT provide real-time feedback on student writing, highlighting areas for improvement such as grammar mistakes, stylistic issues, and vocabulary enhancement. This assistance allows students to effectively communicate their ideas and achieve academic

requirements. Recent research on students' AI use has focused on two areas: long and short-duration university courses. Long-duration courses are at least one academic year duration and constitute part of an undergraduate degree. Short-duration courses are eight weeks or less and are designed to facilitate rapid on-campus preparation for degree courses. According to a recent survey of undergraduate students, more than 80% of students on long-duration programs used AI to enhance written assignment language. By contrast, just under two-thirds of students on short-duration courses used AI for this purpose, perhaps because study pressures on short courses limit the opportunity to experiment with new AI tools. Overall, these AI tools appear to be welcomed by many students seeking to improve how they communicate complex ideas in university assignments.

2. Personalisation of Learning

AI-powered educational platforms like Coursera and Khan Academy have revolutionised personalised learning by offering customised learning paths. These platforms analyse students' performance and learning habits, providing targeted lessons and feedback tailored to each student's specific needs. Personalised learning provides automated feedback on quizzes and assignments, giving students instant insights into their strengths and weaknesses. This immediate feedback enhances the learning process by guiding students to focus on areas where they most need improvement, creating a self-paced and motivating learning environment. Recent research, focused on students' learning motivation, reports that students who use AI platforms to personalise their learning are persistently more motivated than those who do not. Their improved study engagement has been evidenced through increases of up to 7% in assessment scores compared to learners who do not use AI tools. However, familiarisation with

the AI platforms that offer personalised learning requires time and persistence in the early stages of adoption, making this particular use of AI more suitable for students studying long-duration courses of at least one academic year.

3. Translation for Reading and Understanding Texts

AI tools like Google Translate and DeepL have greatly facilitated engagement with English-language resources by students who use English as a second language. By translating academic texts into their first language, these tools assist students with comprehending complex ideas quickly, leading to **improved** academic performance. This is confirmed by industry research focused on AI-powered translation tools, which indicated that **international students achieved essay scores** of up to **23%** higher through their use. Moreover, AI translation applications now enable students to search long research papers and textbooks with search terms in multiple languages, helping them identify key points more efficiently. Overall, these tools can significantly **enhance** students' ability to manage large volumes of reading material effectively.

4. Initial Idea Generation

AI also serves as a valuable tool for students during creative processes, particularly when generating ideas for essays, presentations, or projects. Tools like ChatGPT provide students with prompts and suggestions that can help them overcome writer's block and organise their thoughts. According to a survey of undergraduates, **47%** of students reported that AI tools help them brainstorm ideas and enhance their creativity. These tools are beneficial for students who struggle with starting an assignment, particularly where short intensive courses require the rapid completion of assessed work.

Concerns for Students and Educators Regarding AI Use

1. The Effect of AI Writing Enhancement on Academic Integrity

One of the primary concerns surrounding AI use in education is its potential impact on academic integrity. AI tools like ChatGPT can generate entire essays or sections of work, raising concerns about plagiarism and academic dishonesty. Research published by plagiarism-checking platforms identified that 10% of student papers submitted contain at least 20% AI-generated content. However, due to the limitations of plagiarism detection software, this may mask a much higher figure. The research also pointed out that, on short-duration courses, when the percentage of writing enhancement is below 20%, students' work benefits, resulting in increased assignment grades. However, a higher percentage of AI usage is counterproductive to student learning and academic achievement. One explanation for this is that students who overuse AI when completing written work are generally less engaged in developing topic understanding and give less consideration of how best to structure their ideas. In consequence, higher-level academic abilities are less likely to develop. A final consideration is that significant plagiarism may lead to academic misconduct and even assessment failure. In sum, while these tools can aid students, misusing them by outsourcing the intellectual aspects of written assignments to AI is detrimental to student learning and grades.

2. The Impact of AI Use on the Development of Ideas

While AI tools can streamline learning processes, this may reduce the need for students to engage deeply with course material or critically engage with topic knowledge. According to a survey of British universities, educators are increasingly concerned that students using AI tools are not engaging

critically with key ideas, leading to a superficial grasp of concepts. This situation intensifies when multiple AI tools are utilised to complete all aspects of assignments without the 'necessary difficulty' inherent in learning at university level. Teachers, the survey claimed, are inclined to award grades **below 50%** when essay content does not demonstrate adequate explanation, elaboration and connection between key ideas. The explanation of key ideas and concepts is often an important component in university-level assessment requirements.

3. The Influence of AI Translators on Language Skill Development

AI-powered translation tools are valuable resources for all students, but they may also hinder the development of language skills. One issue with AI translators is that they can **inadvertently** alter the original meaning of source texts, especially if they simplify vocabulary or restructure original sentences. The consequence of this can be a loss of **subtlety** and depth of meaning in students' written work. A further issue was highlighted in undergraduate student feedback obtained from an online survey. The survey identified that about a fifth of students employ multiple translation steps in the development of their written academic work. They translate from source texts in English into their first language, then compose essays in their first language and finally retranslate into English. However, this repeated use of translators can lead to disjointed texts and a risk of lower grades.

Future Directions for AI in University Education

As AI continues to develop, its role in university education will likely expand, offering new possibilities for enhancing student learning while also raising new challenges. One potential future direction for AI is the development of more **sophisticated** personalised learning platforms which can offer even

more tailored feedback and support for students. However, to ensure that AI contributes positively to student learning, universities must implement clear policies for the appropriate use of AI and offer appropriate training for students and staff.

(Word Count: 1280)