

Student insights into Gen-AI Use in writing academic essays in higher education: motives, benefits and challenges

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Abstract

This study explores students' perceptions of the effectiveness of applying generative artificial intelligence (Gen-AI) tools to meet the learning outcomes of assessments. The rapid integration of Gen-AI into higher education has ignited debate about the benefits and challenges of these tools when in the hands of educators and students. The study aimed to contribute to the existing body of knowledge by moving beyond mere usage and acceptance of Gen-AI by focusing on its ability to achieve desired learning outcomes. A qualitative study with a sample of thirty-five undergraduate university students aimed to understand how well Gen-AI met the assessment learning outcomes. The findings identify convenience as one of the main drivers for choosing it and suggest that the threat of plagiarism and inadequate expertise in managing its tools are notable hindrances. This study provides insights into key areas on which academic institutions can focus to make AI tools more valuable in assessments, where their application is now inevitable.

Keywords: generative artificial intelligence, assessments, academic essays, motives, benefits, challenges

1. Introduction

Advancements in Gen-AI, which refers to a set of machine learning algorithms created to produce new data samples that replicate the patterns of existing datasets, have resulted in immense curiosity and interest globally (Chan *et al.*, 2023). Higher education (HE) is one of a number of sectors where Gen-AI tools have generated interest (Hu, 2023). As research has already shown, more and more HE educators and students are exploring how teaching and assessment practices may be enhanced by these tools – for example, instant assessment of students' work and rapid, personalised feedback, both via automated assessment marking procedures (Zhai *et al.*, 2022). AI can also improve learning by granting access to resources and tailoring learning experiences (Perkins, 2023; Zhai *et al.*, 2022). Research has confirmed that students have accepted it as convenient, fast (Gruenhagen *et al.*, 2023) and supportive (Hew *et al.*, 2023).

The most widely discussed AI applications are language models, such as chatGPT, which students have come increasingly to rely on for generating essays, reports and other academic content (Kizilcec *et al.*, 2024). While AI offers such potential benefits as greater efficiency and new learning avenues for students to follow, its ethical implications and how it affects learning continue to cause concern (Cotton *et al.*, 2023; Kizilcec, *op.cit.*, 2024). Educators point to challenges in detecting and confirming what work has been AI-generated, as a lack of

coherence or unnatural expression may suggest, and also worry about the credibility of assessment of student ability. The term 'cognitive laziness' (Fan *et al.*, 2024) illustrates teachers' fear of inadequacies in students' learning when ease of access and convenience may allow them in the short term to score high in tasks without really acquiring learning skills or developing the higher-order skills – such as critical thinking – that are essential in the real world.

Debates and research in the academic arena continue. Much existing research has focused on acceptance of AI or on ethical concerns, such as the risk of plagiarism, and has focused less on understanding the extent to which AI tools affect assessment learning outcomes for students, with a discernible gap in the literature in this regard (Chan and Hu, 2023). Our research aims to bridge this gap by exploring students' perceptions of what AI has to offer in dealing with academic assessments and evaluating its benefits and challenges in achieving the intended learning outcomes. By examining these perceptions, our study seeks to contribute valuable insights into how AI may be exploited to make HE practice much better.

Our study aims to understand the effectiveness of AI in assessments in meeting the desired learning outcomes for the modules. The research questions addressed in this study are as follows:

1. What is the current use of AI in student assessments?
2. Do students perceive AI as an effective tool for meeting the learning outcomes of assessments?
3. What are the challenging factors for effective AI use in assessments?
4. What kind of support should be provided to the students so they can use AI effectively?

2. Literature review

2.1 Overview of learning outcomes

Learning outcomes are specific statements that articulate what students are expected to know, understand or be able to do by the end of an educational experience, typically after a course or module. Watson (2002, p.208) put it simply as: "*something that students can do now that they could not do previously, a change in people as a result of a learning experience*". Bloom's Taxonomy (1956) provided a framework for classifying learning in cognitive terms that expressed different kinds of student thinking (*i.e.*, knowledge, comprehension, application, analysis, synthesis and evaluation). Learning outcomes offer a means by which attention may be focused on the actual achievements of students and this represents a more realistic and genuine measure of the value of education than measures of teaching input (Maher, 2004). From a student's perspective, passing or being considered competent is more important than meeting the module's learning outcomes.

2.2 The role of AI in achieving learning outcomes

As technology has become more integrated into HE, the role of AI tools (such as chat GPT, learning management systems (LMS) and personalised learning platforms) in helping to achieve learning outcomes has understandably been critically scrutinised.

Positively, AI tools can help students' writing by organising ideas and refining their use of language. Features like these may be helpful in meeting cognitive learning outcomes, particularly in disciplines that prioritise writing and analytical skills (Chan and Hu, 2023). Additionally, research on international students suggests that AI use may be beneficial to international students in terms of helping them understand language and contextual barriers through language translation tools and adaptive learning measures (Wang *et al.*, 2023).

However, critics argue that AI tools may undermine students' learning processes if over-reliance on technology prevents deep engagement with the material. For instance, over-dependence on ChatGPT could impair students' engagement in learning by depriving them of the opportunity to engage in critical thinking and problem-solving (Sallam *et al.*, 2023). Concerns about AI-generated content, such as lack of originality or depth, suggest that AI may not fully support achieving higher-level learning outcomes, particularly in areas requiring critical thinking, creativity and problem-solving skills (Lo *et al.*, 2024). Developing critical thinking and independent learning are key components of HE's learning outcomes and are the higher-order skills of Bloom's taxonomy. Research by Fan *et al.* (2024) pointed out that AI tools might improve short-term task performance, but may not boost intrinsic motivation and knowledge gain and transfer, at the risk of reinforcing passive learning behaviours: reliance on AI to complete tasks prevents students from engaging in active, reflective learning processes. As a result, AI may not always align with the broader HE goal of realising fundamental outcomes: lifelong learning skills and independent thought.

According to the Student Generative AI Survey (HEPI, 2025), the number of ungraduated students who use GenAI tools for their assessments increased in 2024 from 53% to 88%. Although the primary applications of GenAI include concept explanation, article summarisation and research topic generation, a sizable portion of students (18%) has directly incorporated AI-generated content into assignments. In these circumstances, if the positive features of AI are to be harnessed, we must understand how they may complement, rather than replace, the essential components of learning; further research is needed. AI's potential for improving cognitive outcomes must be balanced with the need for critical thinking, creativity and active engagement and its implications for educational practices fully grasped (Lo *et al.*, 2024).

2.3 Theoretical review: service-dominant logic in the context of university students and AI tools

Service-dominant logic (SDL) is a theoretical framework that shifts the focus from goods-centric to service-centric exchanges, emphasising value co-creation between providers and customers. In HE, SDL posits that universities and students engage in a dynamic, co-productive relationship where students are not passive recipients but active participants in the learning process (Vargo and Lusch, 2004). In this framework, students are often considered customers, with their needs and experiences playing a central role in shaping educational offerings.

If we consider AI tools (such as GPT-powered writing assistants) through the lens of SDL, the emphasis is on the students' perceptions of how these tools contribute to their learning outcomes. We have to understand whether students see them as enhancing their learning skills and knowledge acquisition or merely as the means of completing assignments; by exploring students' experiences and satisfaction with AI tools, universities will be better equipped to co-create value by adapting their practices to students' needs and preferences (Cruz *et al.*, 2024).

Applying the SDL to studying students' perceptions of AI tools encourages a focus on value co-creation, where understanding student needs and perspectives is key to enhancing the alignment between educational services and learning outcomes.

3. Methodology

Our study employs the interpretive paradigm to investigate how undergraduate students perceive generative AI technologies while writing academic essays during their studies. Interpretivist enquiries help the researcher to consider not just whether a relationship exists or not, but also the ways in which it manifests itself and the context in which it takes place. The researcher is thus able to see 'how' something happened rather than just 'what' happened (Lin, 1998). In the scope of interpretivist approach, Marshall (2006) proposed the use of open-ended structured interviews with questionnaires to investigate subjects like cultural differences and first-hand experiences, as well as participant perspectives, meanings and interpretations.

An interpretivist paradigm is appropriate for comprehending the complicated world of lived experience, as there might be different realities, experiences and situation-specific meanings that constitute the general purpose of investigation (Schwandt, 1994). This study therefore applies a self-administered survey consisting of open-ended questions, so as to understand marketing students' experiences with GenAI, context-specific benefits and the challenges related to these tools. This study was approved by the University of Greenwich Research Ethics Board in December 2024. The ethical approval number is 24.2.5.13.

3.1 Participants and context

This study was conducted in the Management and Marketing department at the University of Greenwich in London, United Kingdom (UK). Both purposeful and snowball sampling were used in the study to investigate and classify undergraduate marketing students' various viewpoints regarding Gen AI-assisted academic assessment writing. Thirty-five students undertook the survey; however, two of them refused the informed consent. So, a total of thirty-three students participated in the study. Nineteen students were in Level 4, ten were in Level 5 and four were in Level 6.

3.2 Data Collection

Data were collected from undergraduate marketing students between 29 October 2024 and 6 December 2024. The sample was recruited before the teaching sessions. To avoid coercive power over the comments, we stressed in the classroom that participation was voluntary and data would be collected anonymously. In addition, we collected data from classes that we do not teach.

A self-administered survey with open-ended questions captured student views about AI in the academic writing process. The form was prepared in Microsoft Forms and informed consent was received from those who wished to participate. The open-ended questions form was structured as shown in figure 1. The responses to these open-ended questions were saved into an Excel file automatically. We asked questions aligned to the research questions.

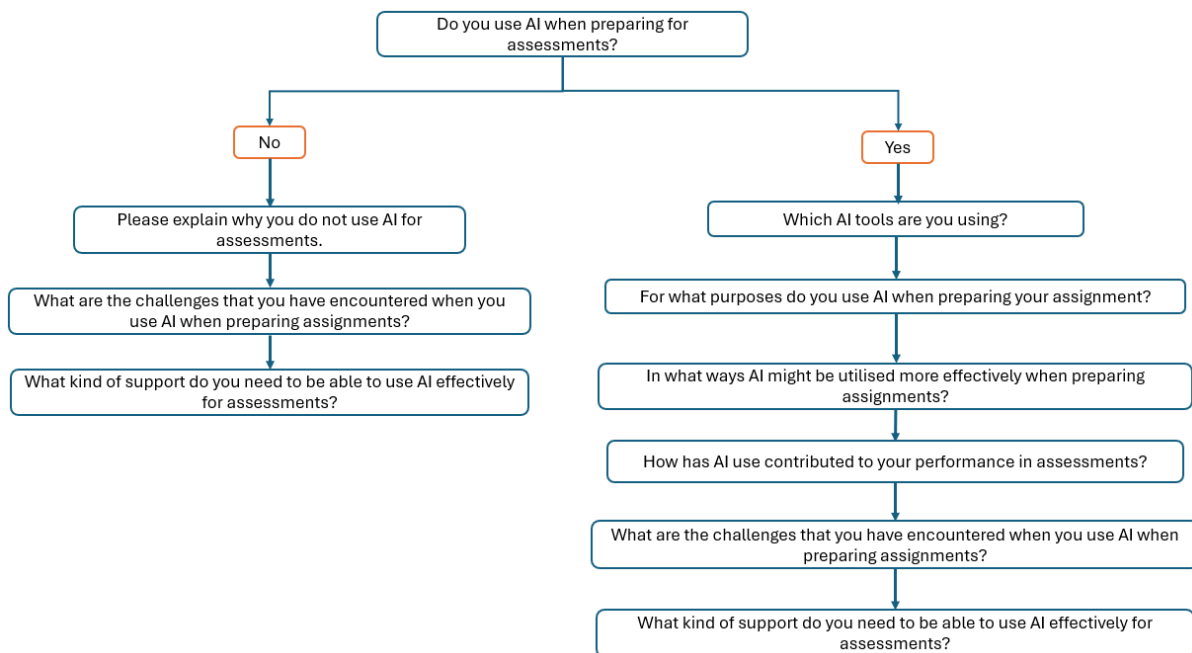


Figure 1. Survey design

3.3 Data analysis

Data gathered were analysed on a Microsoft Excel file, where the Microsoft Forms platform saved the data. Descriptive analysis of the qualitative data was combined with participant quotes. The responses from the students who did not use Gen-AI for academic assessment writing and those who utilised these tools were analysed separately. The data were analysed in alignment with the research questions and themes and sub-themes were constituted by maintaining the original voices of the participants.

4. Findings

4.1 Current use of GenAI

Seven participants said they did not use AI tools while writing academic assessments. The most used AI tool was ChatGPT (24), followed by Grammarly (2). Paraphrase, Quillbot, Studiosity and Summarizer were each used by one student. Twenty-three of the students were female, eight students were male and two of the students preferred not to say anything about their gender.

4.2 The purpose of using Gen-AI

The findings from the analysis of students' current use of AI in their academic assessments yielded diverse results (table 2). We asked the students who use AI why they used this type of tool while writing academic essays and reports.

Table 2. The purpose of using AI while writing assessments

Themes	Sub-themes	Related quotes
Inspirational Ideas	Create ideas	<i>Get some ideas for what to write (P31)</i> <i>To get some additional ideas (P27)</i>
	Having alternative ideas	
	Brainstorming ideas	
	For inspiration	
Formatting and structure	Structuring essay or report	<i>Mainly to see an example of how to structure my assignment based on the brief (P2)</i> <i>Explaining step-by-step requirements that I do not understand gives me an insight into structure. (P33)</i>
	Formatting essay or report	
	Creating a guideline for report and essay	
Improving academic writing	Grammar corrections	<i>ChatGPT helps me paraphrase my ideas more professionally. (P29)</i>
	Spelling	
	Writing in a more formal way	<i>To help better explain things more formally. (P28)</i>
	Paraphrasing the ideas in a more formal way	
	Writing in academic language	<i>I explain my idea more intensely if I haven't reached the minimum words. (P29)</i>
	Citing correctly	
	Vocabulary	
Searching for examples	Improving the writing with examples	<i>Retouch, for example. (P29)</i> <i>Research for samples to improve my report. (P16)</i>
	Having samples	
Simplifying assignment briefs	Understanding questions better	<i>Simplifying the explanation of the brief. (P17)</i>
	Understanding what needs to be written	<i>To understand the assignment and get the highest marks (P5)</i>
Getting feedback	Getting feedback on the work	<i>AI text checkers to get feedback on what I could improve. (P24)</i>
Other	Summarisation	<i>When I need a summary of an article or a long paragraph (P8)</i>
	Finding right sources	

Respondents particularly mentioned the advantage of having inspirational ideas to start writing their academic essays or reports. Also popular was AI's help with formatting and structuring the report or essay. Findings indicated that students used AI for a range of support: improvement of academic writing in terms of spelling, grammar, citation and vocabulary and in writing more formally, as well as doing searches for topic-related examples, simplifying assignment briefs for better understanding, getting feedback on their work, summarising articles and finding the right sources to refer to while writing essays or reports.

Additionally, we asked the students for the reasons for their 1) preference for or 2) avoidance of using AI tools in writing their assessments. The answers are summarised in table 3.

Table 3. The reasons for using or not using AI while writing assessments

Aggregate dimensions	Themes	Quotes
Why use?	Simplifies the task	
	Saves time	<i>The one who is using can gain lots of time when they ask ai to summarise an article without needing to read all of it but still get the context (P8)</i>
	Easy to use	<i>Because it's easy to use, and it answers to my question fast (P25)</i>
	Fast	
Why not use it?	To avoid plagiarism and losing points.	<i>I'm scared it could be counted as plagiarism. (P23)</i> <i>I am also scared that something I run through AI will get flagged on my paper and make me lose points (P6)</i>
	To be more authentic	<i>I believe it is better to find your own sources and do your own writing so it is more authentic. (P6)</i>
	Do not want or need it	
	Hard to use	
	Do not have knowledge on how to benefit from it	<i>Don't fully understand how to use it to my benefit. (P30)</i>

We asked students why they were using or not using Gen-AI in the assessment writing process. The students who use AI find this type of tool easy to use, time-saving and fast; they benefit from simplifying tasks when they do not fully understand what to do. On the other hand, participants reluctant to access the tools offered such explanations as fear of plagiarism, losing points at the end and the desire to be more authentic; one student did not know how to benefit from AI tools for academic writing.

4.3 The effectiveness of AI in students' performance

Asked how AI might be effective for assignment preparation, respondents referred to its ability to: spark ideas when they didn't know where to start; simplify assignment briefs; polish their written language; format their work. Our analysis indicated that most students believed that AI was beneficial in helping them to meet learning outcomes, while a few felt that it had limited impact.

4.4 The challenges of using Gen-AI for academic assignments

In the study, we asked what challenges students recognised in using AI for academic assignments. Ten respondents declared that there were none, while the rest mentioned various difficulties and/or some drawbacks of the AI applications. Table 4 reveals the themes and sub-themes demonstrated by analysis of the question.

Table 4. Challenges in using AI while writing academic assessments

Themes	Sub-themes	Quotes
Incorrect information	Wrong answers	<i>Wrong answers from AI. (P3)</i>
	Not meeting the assignment aims	<i>Not meeting the exact assignment briefs. (P26)</i>
	Unable to understand the questions	<i>Not giving me what I need when searching (P31)</i>
	No reference or wrong referencing	<i>Mostly references aren't right ones. (P32)</i>
	Fake content	
Sounding robotic	Lack of personal skill set	<i>It sounds really robotic sometimes. (P16)</i>
	Sounding robotic	
Threat of Plagiarism	Risk of similarity	
	Threat of plagiarism	
Others	Usage of unreliable sources	<i>Sometimes, when searching for relevant information, they do not come from a secure source. (P33)</i> <i>It's just an additional source so all the information that I find there I have to double check in more reputable sources. (P27)</i>
	Threat to authenticity	<i>I have had group mates who use AI when writing a paper, and it affects the authenticity of the paper. (P6)</i>
	Hard to understand	<i>Specifics are sometimes hard to get. (P21)</i>

Reponses showed that most students complained about AI's provision of incorrect information and fake content. Some mentioned, since these tools lack a personal skill set, that AI-created content sounds robotic. The tools might also result in the accusation of plagiarism, a lack of authenticity and the perceived likelihood of similarity between student submissions. Further comments referred to the provision of unreliable sources for creating content and the difficulty of understanding some content.

4.5 The support needed to use AI effectively in academic assessments.

When asked what kind of support they needed to use AI effectively in their academic assessments, most students did not require any and some were not sure whether they needed it. Most wanted more knowledge and guidance about how to use AI and its diverse features: on how to ask questions in order to retrieve appropriate answers and on how to search correctly for information. Two students raised concerns about accessibility, such as a fast Wi-

Fi connection. One student mentioned that a live chat option would make AI more effective for academic assessments.

5. Discussion and conclusions

The majority of participants indicated that they use AI for their written assignments. Chat GPT was the most used AI tool for assignments. This result accords with prior research findings that students prefer Chat GPT for assessments like essays, reports and plans (Kizilcec *et al.*, 2024). This result may in our case be explained by the nature of assessments (some form of essay and creative writing) in the School of Marketing and Management: ChatGPT could well be of benefit here. Results showed that the most common reasons for using Gen-AI are convenience and inspirational ideas provided as a good starting point, again according with previous studies. Sallam *et al.* (2023) and Kizilcec *et al.* (2024) also reported that convenience and ease of access are the reasons for using these tools. These results reflect those of HEPI's Student Generative AI Survey (2025) – that students typically find that GenAI tools raise the quality of their work and save them time.

The findings of this study presented a mixed picture regarding AI's effectiveness in positively influencing students' learning outcomes. While some participants reported that the use of AI for assessments was beneficial and supported their attainment of intended outcomes, others perceived little or no gain. This divergence could be on account of the skill level being assessed. For example, Gruenhagen *et al.* (2024) observed that, while the majority of students found AI tools helpful for tasks involving lower-order cognitive skills like information retrieval or basic knowledge acquisition, these tools proved less effective when assessments demanded higher-order analytical abilities.

In HE, the fact that the development and assessment of higher-order analytical skills are critical throws up important questions about the extent to which AI tools like ChatGPT can support meaningful learning outcomes. This concern is reflected by Boubker (2024), who concluded that students' actual use of ChatGPT did not necessarily predict their learning effectiveness. Boubker argued that the mere use of technology may be insufficient to influence learning outcomes significantly, though offering some satisfactory elements, like quick access to information.

As for challenges in using AI in writing academic assessments, incorrect information that did not meet the requirements of the assignment brief and wrong referencing were the most mentioned ones. The findings also corroborate concerns regarding the fabrication of information and references by AI, as highlighted by Cotton *et al.* (2023) in their ChatGPT-guided study, wherein the model generated non-existent references.

The threat of plagiarism, usage of unreliable sources and lack of authenticity were the other challenges associated with AI use while writing academic essays. Lack of authenticity was also noted to be a concern by students in previous studies (Chan and Hu, 2023, Kizilcec *et al.*, 2024). These results are in line with HEPI's Student Generative AI Survey (2025), which reveals students' fears of receiving biased or inaccurate results and the possibility of being accused of academic misconduct as the main reasons for reluctance to take advantage of AI.

It is noteworthy that some students regarded the use of AI as acceptable when limited to obtaining information or generating ideas, as reported by Gruenhagen *et al.* (2024). This may suggest that students' concerns about plagiarism are more closely associated with the extent and manner of AI use, rather than the provision itself.

A lack of knowledge regarding the effective use of AI tools was identified as a significant challenge by several participants, offering an important insight into barriers to adoption. Ensuring that all students receive adequate training to develop competence in using AI aligns with the principles of fairness and inclusivity, as emphasised by Gruenhagen *et al.* (2024). In their study, the students mentioned that AI technologies should be accessible to all students if they are to be integrated into educational practice. It is plausible that limited know-how discourages students from engaging with these tools. Supporting this view, Chan and Hu (2023) confirmed a positive association between students' knowledge of GenAI tools and their likelihood of using such tools in academic contexts.

5.1 Implications

Our findings highlighted the importance of considering risk perceptions associated with AI use in assessments. As the risk of plagiarism is clearly a major concern among students, universities need to have clearer policies on what constitutes cheating in the age of AI. Training is first required to encourage appropriate and effective AI use. Lack of knowledge about how to use AI productively for assessments also calls for training.

Relevant training:

- We can do this, at the programme start and before due assessment dates, by dedicated class sessions on how to use AI correctly in accordance with university AI policy. This seems preferable to just sharing a link to the university's policy.
- We can also emphasise the university policy on plagiarism and provide training on how not to plagiarise when using AI in assignments.

In addition, it is an effective practice to use university AI tools such as Studiosity that might be more focused, relevant to university students and simpler to use. The concern that sometimes incorrect information is presented might be realistically addressed if the AI tool is developed and/or managed by the university or its partners. In line with the service dominant logic, it is also essential, if the concerns of students are to be addressed and learning outcomes are to be improved, to include students in the conversations as stakeholders and co-creators. More broadly, continuing dialogue among all stakeholders is vital to the continuous development and improvement of AI tools in academia.

5.2 Limitations and recommendations for future research

The sample was relatively small and limited to one faculty. In the future, a broader sample, with students from different faculties, is recommended to allow for cross-discipline comparisons. Since AI tools are relatively new and have not been fully established in formal academic settings, there is limited information available to students and educators to test thoroughly how they affect learning outcomes. Future researchers can take an experimental and longitudinal route for a more comprehensive study.

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