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Perceptions of Generative Artificial Intelligence and Academic Integrity in Higher Education: A Comparative Study of Students and Academic Staff

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Abstract

The rapid adoption of generative artificial intelligence (AI), particularly large language models such as ChatGPT, is transforming teaching and learning practices in higher education while also raising important concerns about academic integrity, transparency, ethics, and the responsible use of AI. This study examines and compares the perceptions and practices of students and academic staff regarding generative AI, with particular attention to AI use, academic integrity, institutional ambiguity, transparency, and citation practices.

The study employed a quantitative, cross-sectional survey design. Data were collected through a structured, paper-based questionnaire administered in person to 202 participants at Kadri Zeka University in Kosovo, including 168 students and 34 academic staff members. The data were analyzed using descriptive statistics and an independent-samples *t*-test.

The findings revealed statistically significant differences between students and academic staff across most of the dimensions examined. Academic staff reported a higher overall frequency of AI use, greater perceived institutional ambiguity, more critical attitudes toward AI use in relation to academic integrity, and stronger support for transparency. In contrast, students reported greater use of AI for academic purposes and more tolerant attitudes toward its use. No statistically significant differences were found between the two groups regarding the perceived importance of academic integrity or citation practices. These findings highlight the need for clearer institutional policies and shared standards for the transparent and responsible use of generative AI in higher education.

1. Introduction

The rapid advancement of generative artificial intelligence (AI) is reshaping teaching, learning, and academic work in higher education. Tools such as ChatGPT, Grammarly, Microsoft Copilot, and other applications based on large language models are increasingly being used to support academic writing, translation, programming, information retrieval, and content generation. While these technologies offer new opportunities to enhance learning and academic productivity, their growing use has also raised important issues related to academic integrity, transparency, authorship, and the ethical and responsible use of AI in university settings (Selwyn, 2019; Kasneci et al., 2023; Zhai, 2023).

Generative AI offers considerable educational potential by expanding access to information, supporting personalized learning, and assisting students with idea generation, writing, and problem-solving (Luckin et al., 2016; Holmes et al., 2019; Tlili et al., 2023; Baidoo-Anu & Ansah, 2023; Zawacki-Richter et al., 2019). However, its increasing integration into academic activities has also raised concerns about plagiarism, unclear authorship, overreliance on AI-generated content, and the potential weakening of critical thinking and independent learning skills (Cotton et al., 2023; Grassini, 2023; Perkins, 2023). These concerns are particularly important in higher education, where assessment and academic achievement are expected to reflect students' own intellectual contributions and adherence to the principles of academic honesty (Bearman et al., 2023).

Academic integrity is a fundamental principle of higher education and encompasses values such as honesty, trust, fairness, responsibility, and transparency (Fishman, 2014; Bretag, 2016). However, the rapid adoption of generative AI has complicated the distinction between legitimate technological assistance and practices that may constitute violations of academic integrity. This challenge is further intensified by the lack of consistent institutional policies and shared standards regarding acceptable AI use, disclosure of its use, and citation (Anderson & Rainie, 2023; Williamson & Eynon, 2020). Consequently, higher education institutions face the dual challenge of benefiting from technological innovation while simultaneously maintaining academic standards and ensuring the responsible use of generative AI.

Although a growing number of studies have examined the educational potential of generative AI and the ethical challenges associated with its use, relatively less empirical attention has been devoted to examining students and academic staff within the same institutional context. In particular, there remains a need for comparative evidence on how these two groups perceive academic integrity, institutional ambiguity, transparency, and practices related to acknowledging or disclosing AI-generated content. Such comparisons are important because students and academic staff have different roles and responsibilities within higher education and may therefore interpret the opportunities, risks, and ethical boundaries associated with generative AI differently. Understanding where their perceptions converge or diverge can provide valuable evidence for the development of institutional policies that are both practically applicable and responsive to the needs of different academic stakeholders.

In this context, the present study investigates reported perceptions and practices related to generative AI among students and academic staff at Kadri Zeka University in Kosovo. Specifically, the study compares the two groups in terms of their use of generative AI, perceptions of academic integrity and institutional ambiguity, attitudes toward transparency, and practices related to disclosing the use of AI-generated content. Using a quantitative, cross-sectional, and comparative design, the study aims to provide empirical evidence on whether and in what ways students and academic staff differ across these dimensions.

The study contributes to the existing literature in two main ways. First, it provides a direct comparison between students and academic staff across the technological, ethical, and institutional dimensions of generative AI use within the same higher education setting. Second, it provides empirical evidence from Kosovo, a context that remains underrepresented in the international literature on generative AI in higher education. Evidence from such contexts can broaden understanding of how institutional and academic stakeholders respond to generative AI beyond the settings that have received greater attention in existing research. By identifying areas of convergence and divergence between students and academic staff, the study may also contribute to the development of clearer institutional policies, more consistent practices for transparency and disclosure of AI use, and initiatives aimed at strengthening academic integrity and AI literacy. In this way, the study contributes to the broader international discussion on the responsible and sustainable integration of generative AI into higher education.

2. Literature Review

The rapid development of generative artificial intelligence (AI) has transformed the ways in which teaching, learning, and academic work are organized in higher education. Tools such as ChatGPT and other systems based on large language models are increasingly being used for academic writing, idea generation, translation, information retrieval, and problem-solving (Kasneci et al., 2023; Tlili et al., 2023; Ouyang et al., 2022). Existing research suggests that these technologies can increase efficiency, broaden access to information, support personalized learning, and provide additional assistance to both students and academic staff (Luckin et al., 2016; Holmes et al., 2019; Luckin, 2018).

Beyond their potential to support learning, generative AI tools are also changing the way academic content is produced. Students can use these systems to generate or improve essays, summaries, responses to academic questions, programming code, and other forms of academic material. Lund et al. (2023) highlight the growing presence of generative AI in higher education, particularly in activities involving information production and language support. However, the educational benefits of these technologies are accompanied by concerns that excessive or uncritical reliance on AI may weaken critical reflection, independent thinking, and meaningful engagement with learning tasks (Grassini, 2023; Sailer & Manganello, 2023).

Generative AI therefore presents higher education with a dual challenge. On the one hand, it can improve productivity, facilitate access to information, and provide new forms of learning support. On the other hand, it complicates the distinction between legitimate technological assistance and authentic academic performance. The educational significance of generative AI therefore extends beyond the adoption of a new technological tool and raises broader pedagogical, ethical, and institutional questions about how AI should be integrated into academic work.

Academic integrity is a fundamental principle of higher education and encompasses values such as honesty, trust, fairness, responsibility, and transparency (Fishman, 2014; Bretag & Mahmud, 2016). In university settings, these values are closely linked to authorship, originality, individual responsibility, and the credibility of academic assessment. The emergence of generative AI has complicated the application of these principles by creating new forms of technological assistance that do not always fit clearly within traditional definitions of acceptable and unacceptable academic practices.

Concerns are particularly pronounced when AI-generated content is submitted without disclosure or when AI replaces the intellectual contribution expected from students. Previous research has highlighted the challenges that emerging technologies create for academic integrity and assessment practices (Cotton et al., 2023; Perkins, 2023; Bittle & El-Gayar, 2025). Dawson and Sutherland-Smith (2019) further demonstrate the broader difficulties associated with verifying the authenticity of submitted academic work, while McGee (2020) emphasizes the need to reconsider academic honesty in increasingly digitalized learning environments. These concerns have become particularly important in the context of generative AI, where the boundary between assistance and the replacement of individual contribution can be difficult to define.

At the same time, the ethical implications of generative AI cannot be understood solely in terms of technological capabilities. They also depend on how different academic stakeholders interpret its legitimate use. Students may perceive generative AI primarily as a practical tool that supports learning and academic performance, while academic staff may place greater emphasis on authorship, originality, assessment validity, and individual academic responsibility. Differences between these perspectives are therefore important for understanding how academic integrity is interpreted in AI-supported educational environments.

The rapid adoption of generative AI has outpaced the development of institutional frameworks intended to regulate its use. As a result, higher education institutions face challenges in determining what constitutes acceptable AI assistance, when AI use should be disclosed, and how AI-generated or AI-assisted content should be addressed within assessment practices. The absence of sufficiently clear and consistent guidance can create an institutional “grey area” in which students and academic staff may interpret acceptable AI use differently (Williamson & Eynon, 2020; McFarlane, 2022).

Institutional ambiguity is particularly important because uncertainty surrounding rules can lead to inconsistent practices across courses, academic programs, and user groups. When expectations are unclear, similar uses of AI may be interpreted as legitimate assistance in one context and as a violation of academic integrity in another. Consequently, governing the use of generative AI requires institutions to move beyond general statements about academic honesty and develop clearer guidance on acceptable use, disclosure, accountability, and assessment.

Responsible AI use also depends on users’ ability to understand both the capabilities and limitations of these technologies. Dwivedi et al. (2023) emphasize that responsible AI adoption requires attention to ethical and institutional considerations alongside technological innovation. Similarly, Long and Magerko (2020) identify AI literacy as an important competency for individuals interacting with AI-enabled systems, while Ng (2012) demonstrates, more broadly, that familiarity with digital technologies does not necessarily imply the ability to use them critically, reflectively, and responsibly. From this perspective, institutional policies and AI literacy complement one another: clear policies establish expectations, while appropriate competencies enable students and academic staff to interpret and apply those expectations responsibly.

Transparency has emerged as another important dimension of the ethical use of generative AI in higher education. Unlike traditional academic sources, generative AI systems can produce text and other content without functioning as traditional authors and without always providing verifiable attribution of sources. This creates methodological and ethical questions about how AI assistance should be disclosed and documented in academic work (Floridi & Chiriatti, 2020).

Institutions and academic organizations have begun developing guidance on the disclosure and acknowledgment of AI use; however, approaches remain inconsistent. The absence of standardized transparency practices can create uncertainty for both students and academic staff about when AI use should be disclosed and how such use relates to academic integrity (Anderson & Rainie, 2023; McDonald

et al., 2024). Transparency, therefore, is not merely a technical matter of citation but an important component of accountability in AI-assisted academic work. More broadly, Jobin et al. (2019) identify transparency, accountability, and responsibility as recurring principles in AI ethics guidelines, suggesting that these principles should also guide institutional approaches to generative AI in higher education.

However, citation and disclosure should be conceptually distinguished. Traditional citation acknowledges identifiable intellectual sources, whereas disclosure of generative AI use communicates the role played by a technological system in producing or improving academic content (Russell & Norvig, 2021). In practice, the appropriate approach may depend on institutional and disciplinary requirements. The absence of harmonized standards may therefore contribute to uncertainty and inconsistent practices among both students and academic staff (Lee, 2018).

Although the literature on generative AI in education has expanded rapidly, considerable attention has focused either on its educational potential or on broader ethical and normative issues. Comparatively less empirical attention has been given to differences between students and academic staff across multiple dimensions of AI use within the same higher education context (King et al., 2023).

This distinction is important because students and academic staff occupy different roles and carry different responsibilities within the university environment. Students encounter generative AI primarily in the context of learning, assessment, and completing academic tasks, whereas academic staff are also responsible for teaching, designing assessments, evaluating achievement, and maintaining academic standards. These different positions may influence how the two groups perceive the usefulness, legitimacy, risks, and ethical boundaries of generative AI.

The existing literature therefore indicates a need for comparative empirical evidence that considers not only the frequency and purposes of AI use but also perceptions of academic integrity, institutional ambiguity, transparency, and practices for disclosing AI-generated content. Examining these dimensions together can provide a more comprehensive understanding of the areas in which student and academic staff perceptions converge and those in which they differ.

The present study seeks to address this need by comparatively examining students and academic staff within the same institutional context. In addition to providing evidence from Kosovo, which remains underrepresented in the international literature on generative AI in higher education, the study examines technological, ethical, and institutional dimensions within a single analytical framework. This comparative perspective may contribute to a better understanding of how higher education institutions can develop clearer policies, transparency standards, and academic integrity practices that respond to the perspectives of different academic stakeholders.

Research Hypotheses

Based on the existing literature on generative artificial intelligence, academic integrity, and institutional ambiguity in higher education, the following hypotheses are proposed:

H1

There is a statistically significant difference between students and academic staff in their perceptions of academic integrity and ethical considerations related to the use of generative artificial intelligence.

H2

Students report a statistically significantly higher level of generative AI use for academic purposes compared with academic staff.

H3

There is a statistically significant difference between students and academic staff in their perceptions of institutional ambiguity and the need for clear policies on the use of artificial intelligence in higher education.

H4

There is a statistically significant difference between students and academic staff in their attitudes toward transparency and citation practices for content generated by artificial intelligence.

3. Methodology

3.1. Research Design

This study employed a quantitative, cross-sectional, comparative survey design to examine and compare the reported perceptions and practices of students and academic staff regarding the use of generative artificial intelligence (AI) in higher education. The study focused on four broad thematic areas: AI use and integration, academic integrity and ethics, institutional ambiguity, and transparency and citation practices.

The quantitative approach was considered appropriate because it enabled the systematic measurement of participants' responses and the statistical comparison of differences between students and academic staff through standardized quantitative measures (Bryman, 2016; Creswell & Creswell, 2018; Cohen et al., 2018). The cross-sectional design captured participants' reported perceptions and practices at a specific point in time and was not intended to establish causal relationships.

3.2. Participants and Sample

The study included a total of 202 participants from Kadri Zeka University in Kosovo. Of the overall sample, 168 participants (83.2%) were undergraduate Bachelor's students, while 34 (16.8%) were members of the academic staff. The students were enrolled in Bachelor's-level programs and were between 19 and 23 years of age. The academic staff group consisted of university teaching personnel with between 2 and 15 years of professional experience.

The characteristics of the study sample are presented in Table 1.

Table 1
Characteristics of the Study Sample (N = 202)

Participant group	N	%	Additional characteristics
Bachelor's students	168	83.2	Age: 19–23 years
Academic staff	34	16.8	Professional experience: 2–15 years
Total	202	100.0	—

Participants were recruited through convenience sampling and voluntarily completed an anonymous, paper-based questionnaire distributed and administered in person.

This sampling strategy facilitated access to both target groups within the institutional setting of the study. Because the sample was drawn from a single university and participants were not selected through probability sampling, the findings should be interpreted within the specific institutional context and should not be automatically generalized to the broader higher education population.

The unequal sizes of the two groups (168 students and 34 academic staff members) were taken into account when conducting and interpreting statistical comparisons between the groups.

3.3. Instrument and Measures

Data were collected in March 2026 using a structured, paper-based questionnaire administered in person to students and academic staff. The quantitative component of the questionnaire comprised 11 variables designed to capture participants' reported perceptions and practices regarding generative AI in higher education.

The questionnaire items were measured using a five-point Likert scale, with responses ranging from 1 (Strongly disagree), 2 (Disagree), 3 (Neither agree nor disagree), 4 (Agree), to 5 (Strongly agree) (Joshi et al., 2015). Higher scores therefore indicated stronger agreement with the statement presented in each item. The same response scale was used for both students and academic staff, ensuring consistency and comparability between the two groups.

For purposes of conceptual organization and interpretation, the 11 variables were grouped into four thematic areas: (1) AI use and integration, (2) academic integrity and ethics, (3) institutional ambiguity, and (4) transparency and citation practices.

The AI use and integration theme included three variables: frequency of generative AI use, use of generative AI for academic purposes, and integration of generative AI tools into academic tasks.

The academic integrity and ethics theme included four variables: perceived importance of academic integrity, perception of generative AI use as a potential violation of academic integrity, tolerance toward

AI use in academic tasks, and perceptions of generative AI in relation to academic integrity and ethics.

Institutional ambiguity was represented by one variable measuring perceived uncertainty regarding the use of generative AI.

Finally, the transparency and citation practices theme included three variables: citation practices for AI-generated content, recommended citation practices for AI-generated materials, and transparency regarding the use of generative AI in university assignments and projects.

The 11 variables were conceptually organized into four thematic areas to facilitate the interpretation of the findings. AI use and integration referred to the extent to which participants reported using generative AI and incorporating it into academic activities. Academic integrity and ethics captured participants' perceptions of the relationship between generative AI use, academic honesty, ethical considerations, and tolerance toward its use in academic tasks. Institutional ambiguity referred to participants' perceived uncertainty regarding institutional expectations and the acceptable use of generative AI in the university context. Finally, transparency and citation practices addressed participants' views and reported practices concerning the acknowledgment, citation, and disclosure of generative AI use in academic work. These thematic areas were used solely as a conceptual framework for organizing the variables and interpreting the results; they were not treated as composite or psychometric scales.

The thematic organization of the variables is summarized in Table 2.

Table 2
Thematic Organization of the Variables Examined in the Study

Thematic area	Included variables
AI use and integration	Frequency of generative AI use; use of generative AI for academic purposes; integration of generative AI tools into academic tasks
Academic integrity and ethics	Perceived importance of academic integrity; perception of generative AI use as a potential violation of academic integrity; tolerance toward AI use in academic tasks; perceptions of generative AI in relation to academic integrity and ethics
Institutional ambiguity	Perceived uncertainty regarding the use of generative AI
Transparency and citation practices	Citation practices for AI-generated content; recommended citation practices for AI-generated materials; transparency regarding the use of generative AI in university assignments and projects

The variables were analyzed individually and were not combined into composite scores for the four thematic areas. Accordingly, the thematic areas served as a conceptual framework for organizing and interpreting the variables rather than as psychometric scales. This variable-level analytical approach preserved the distinct meaning of each measure and enabled direct comparisons between students and academic staff across the specific dimensions examined in the study.

3.4. Instrument Development and Conceptual Organization

The questionnaire was developed specifically for the purposes of the present study rather than adopted from an existing standardized instrument. Its development was guided by the study objectives, research hypotheses, and key themes identified in the literature on generative AI in higher education. Particular attention was given to issues related to AI use and integration, academic integrity and ethics, institutional uncertainty, transparency, and citation practices.

The content of the questionnaire was informed by relevant literature addressing the educational and ethical implications of generative AI, including the work of Kasneci et al. (2023), Cotton et al. (2023), Perkins (2023), and Grassini (2023). Based on these themes and the specific aims of the study, questionnaire items were formulated to capture aspects of generative AI use and participants' perceptions of its implications for academic practices. The items were then organized according to their conceptual relevance to the four thematic areas used in the study: AI use and integration, academic integrity and ethics, institutional ambiguity, and transparency and citation practices.

The thematic grouping was used to provide a coherent framework for organizing and interpreting the 11 variables and was not intended to establish four psychometric constructs. Each variable was therefore treated as an individual measure rather than as an item within a multi-item scale.

Accordingly, the variables were analyzed individually and were not aggregated to create composite scores for the four thematic areas. For this reason, internal consistency coefficients such as Cronbach's alpha were not calculated for these thematic categories. Instead, descriptive statistics and individual between-group comparisons were used to examine differences between students and academic staff across the variables included in the analysis.

3.5. Data Collection Procedure

Data were collected in March 2026 using paper-based questionnaires administered in person to Bachelor's students and academic staff at Kadri Zeka University in Kosovo. The same questionnaire and response format were used for both groups to ensure consistency in the data collection process.

Participation in the study was voluntary and anonymous. Before completing the questionnaire, participants were informed about the purpose of the study, the intended academic and research use of the collected data, the confidentiality of their responses, and their right to discontinue participation at any stage without any consequences.

Participants completed the questionnaires independently, and no personally identifiable information was collected. The completed questionnaires were treated confidentially, and the data obtained from them were used exclusively for academic and research purposes.

3.6. Data Analysis

The data were analyzed using descriptive and inferential statistical procedures. Means (M) and standard deviations (SD) were calculated to summarize responses to the quantitative variables.

Independent-samples t-tests were used to compare students and academic staff across the 11 variables examined in the study. For each comparison, the mean and standard deviation for each group, the t statistic, degrees of freedom (df), and corresponding p value were reported. Statistical significance was evaluated at an alpha level of .05, with $p < .05$ considered statistically significant.

The relevant assumptions of the independent-samples t-test were considered when conducting and interpreting the comparisons. Homogeneity of variances was assessed using Levene's test. When the assumption of equal variances was not met, the appropriate unequal-variances form of the independent-samples t-test was used, and adjusted degrees of freedom were reported.

All 11 variables were examined individually and were not combined into composite scores for the four thematic areas. This analytical strategy was consistent with the conceptual organization of the questionnaire and enabled the identification of variable-specific differences between students and academic staff.

Categorical responses, where applicable, were analyzed descriptively to provide supplementary information about participants' response patterns.

3.7. Ethical Considerations

The study was conducted in accordance with fundamental ethical principles applicable to educational research, including voluntary participation, informed consent, anonymity, confidentiality, and participants' right to withdraw from the study.

Before completing the questionnaire, participants were informed about the purpose of the research, the intended academic use of the information collected, the confidentiality of their responses, and their right to discontinue participation without any consequences. Participants provided informed consent before proceeding with the questionnaire.

The study involved an anonymous, paper-based questionnaire administered in person and did not involve any experimental intervention or the collection of personally identifiable information. All collected data were treated confidentially and used exclusively for academic and research purposes.

4. Results

This section presents the empirical findings of the study on the perceptions and practices of students and academic staff regarding the use of generative artificial intelligence (AI) in higher education. The independent samples t-test was used to compare the two groups. The results are reported according to the main dimensions of the study.

The frequency of generative AI use is presented in Table 3.

Table 3
Frequency of Generative AI Use in Academic Activities

Group	N	M	SD	t	df	P
Academic staff	*34*	*4.65*	*0.65*	*2.65*	*63.13*	*.010*
Students	*168*	*4.30*	*0.92*	—	—	—

Academic staff reported a higher mean frequency of generative AI use in academic activities (M = 4.65, SD = 0.65) than students (M = 4.30, SD = 0.92). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(63.13) = 2.65, p = .010. These findings suggest that academic staff reported more frequent use of generative AI in academic activities compared with students.

The perceived importance of academic integrity is presented in Table 4.

Table 4
Importance of Academic Integrity

Group	N	M	SD	t	df	P
Academic staff	*34*	*4.82*	*0.58*	*0.83*	*45.80*	*.410*
Students	*168*	*4.73*	*0.55*	—	—	—

Both academic staff (M = 4.82, SD = 0.58) and students (M = 4.73, SD = 0.55) reported high levels of perceived importance of academic integrity. Although the mean score was slightly higher among academic staff, Welch's independent-samples t-test indicated that the difference between the two groups was not statistically significant, t(45.80) = 0.83, p = .410. Thus, no statistically significant difference was identified between students and academic staff regarding the perceived importance of academic integrity.

Perceived uncertainty regarding generative AI use is presented in Table 5.

Table 5
Perceived Uncertainty Regarding the Use of Generative Artificial Intelligence

Group	N	M	SD	t	df	p
Academic staff	*34*	*4.00*	*0.67*	*6.55*	*72.85*	*< .001*
Students	*168*	*3.07*	*1.08*	—	—	—

Academic staff reported higher levels of perceived uncertainty regarding the use of generative AI (M = 4.00, SD = 0.67) than students (M = 3.07, SD = 1.08). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(72.85) = 6.55, p < .001. The higher

standard deviation among students indicates greater variability in their responses compared with academic staff.

The use of generative AI for academic purposes is presented in Table 6.

Table 6
Use of Generative Artificial Intelligence for Academic Purposes

Group	N	M	SD	t	Df	p
Academic staff	34	3.03	1.50	−4.41	41.35	< .001
Students	168	4.23	1.16	—	—	—

Students reported a higher mean level of generative AI use for academic purposes (M = 4.23, SD = 1.16) than academic staff (M = 3.03, SD = 1.50). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(41.35) = − 4.41, p < .001. The higher standard deviation among academic staff indicates greater variability in their responses compared with students.

Perceptions of AI use as a violation of academic integrity are presented in Table 7.

Table 7
Perceptions of Generative AI Use as a Violation of Academic Integrity

Group	N	M	SD	t	Df	P
Academic staff	34	4.71	1.05	8.73	47.91	< .001
Students	168	2.98	1.07	—	—	—

Academic staff reported a higher level of agreement that the use of generative AI in academic assignments constitutes a violation of academic integrity (M = 4.71, SD = 1.05) than students (M = 2.98, SD = 1.07). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(47.91) = 8.73, p < .001. The similar standard deviations indicate comparable variability in responses across the two groups.

Tolerance toward generative AI use in academic tasks is presented in Table 8.

Table 8
Tolerance Toward the Use of Generative AI in Academic Tasks

Group	N	M	SD	T	Df	p
Academic staff	34	3.33	0.72	−3.28	38.13	.002
Students	168	3.75	0.44	—	—	—

Students reported a higher mean level of tolerance toward the use of generative AI in academic tasks (M = 3.75, SD = 0.44) than academic staff (M = 3.33, SD = 0.72). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(38.13) = − 3.28, p = .002. The lower standard deviation among students indicates less variability in their responses compared with academic staff.

Citation practices for AI-generated content are presented in Table 9.

Table 9
Citation Practices for AI-Generated Content

Group	N	M	SD	T	df	p
Academic staff	34	2.47	1.36	−1.98	48.23	.053
Students	168	2.98	1.40	—	—	—

Students reported a higher mean score for citation practices related to AI-generated content (M = 2.98, SD = 1.40) than academic staff (M = 2.47, SD = 1.36). However, Welch's independent-samples t-test indicated that the difference between the two groups was not statistically significant, t(48.23) = − 1.98, p = .053. Therefore, there was insufficient statistical evidence to conclude that students and academic staff differed significantly in their citation practices for AI-generated content.

Recommended citation practices for AI-generated materials are presented in Table 10.

Table 10
Recommended Citation Practices for AI-Generated Materials

Group	N	M	SD	T	df	p
Academic staff	34	2.17	1.44	−0.08	41.93	.940
Students	168	2.19	1.15	—	—	—

Academic staff (M = 2.17, SD = 1.44) and students (M = 2.19, SD = 1.15) reported nearly identical mean scores regarding recommended citation practices for AI-generated materials. Welch's independent-samples t-test indicated that the difference between the two groups was not statistically significant, t(41.93) = − 0.08, p = .940. Therefore, there was insufficient statistical evidence to conclude that students and academic staff differed in their recommended citation practices for AI-generated materials.

Perceptions of generative AI in relation to academic integrity and ethics are presented in Table 11.

Table 11
Perceptions of Generative AI in Relation to Academic Integrity and Ethics

Group	N	M	SD	T	df	p
Academic staff	34	1.91	1.23	−3.30	51.30	.002
Students	168	2.69	1.38	—	—	—

Students reported a higher mean score regarding perceptions of generative AI in relation to academic integrity and ethics (M = 2.69, SD = 1.38) than academic staff (M = 1.91, SD = 1.23). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(51.30) = − 3.30, p = .002. Thus, students and academic staff differed significantly in their perceptions of generative AI in relation to academic integrity and ethics, with students reporting higher scores on this variable.

The integration of generative AI tools into academic tasks is presented in Table 12.

Table 12
Integration of Generative AI Tools into Academic Tasks

Group	N	M	SD	t	df	P
Academic staff	34	3.60	0.50	6.85	91.88	< .001
Students	168	2.82	0.97	—	—	—

Academic staff reported a higher mean score for the integration of generative AI tools into academic tasks (M = 3.60, SD = 0.50) than students (M = 2.82, SD = 0.97). Welch's independent-samples t-test indicated that the difference between the two groups was statistically significant, t(91.88) = 6.85, p < .001. The lower standard deviation among academic staff indicates less variability in their responses compared with students.

Transparency regarding generative AI use is presented in Table 13.

Table 13
Transparency in the Use of Generative AI in University Assignments and Projects

Group	N	M	SD	t	df	P
Academic staff	34	2.85	0.36	4.33	95.67	< .001
Students	168	2.49	0.72	—	—	—

Academic staff reported a higher mean score regarding transparency in the use of generative AI in university assignments and projects (M = 2.85, SD = 0.36) than students (M = 2.49, SD = 0.72). Welch's independent-samples t-test indicated that the difference between the two groups was statistically

significant, t(95.67) = 4.33, p < .001. The lower standard deviation among academic staff indicates less variability in their responses compared with students. These findings suggest that academic staff and students differed significantly in their reported scores concerning transparency in the use of generative AI.

Table 14. Summary of Welch's t-Tests, Effect Sizes, and Confidence Intervals

Table 14
Summary of Welch's t-Tests, Effect Sizes, and Confidence Intervals

Variable	t	df	P	p (Holm)	Mean Difference	95% CI	Cohen's d
Frequency of generative AI use	2.65	63.13	.010	.041	0.35	[0.09, 0.61]	0.40
Importance of academic integrity	0.83	45.80	.410	.819	0.09	[− 0.13, 0.31]	0.16
Perceived uncertainty regarding AI use	6.55	72.85	< .001	< .001	0.93	[0.65, 1.21]	0.91
Use of AI for academic purposes	−4.41	41.35	< .001	< .001	−1.20	[− 1.75, − 0.65]	−0.98
AI use as a violation of academic integrity	8.73	47.91	< .001	< .001	1.73	[1.33, 2.13]	1.62
Tolerance toward AI use	−3.28	38.13	.002	.011	−0.42	[− 0.68, − 0.16]	−0.84
Citation practices for AI-generated content	−1.98	48.23	.053	.159	−0.51	[− 1.03, 0.01]	−0.37
Recommended citation practices	−0.08	41.93	.940	.940	−0.02	[− 0.55, 0.51]	−0.02
AI, academic integrity and ethics perceptions	−3.30	51.30	.002	.011	−0.78	[− 1.25, − 0.31]	−0.58
Integration of AI tools into academic tasks	6.85	91.88	< .001	< .001	0.78	[0.55, 1.01]	0.86
Transparency regarding AI use	4.33	95.67	< .001	< .001	0.36	[0.20, 0.52]	0.53

Table 14 presents the results of Welch's independent-samples t-tests comparing academic staff and students across eleven variables related to generative AI use and academic integrity. Statistically significant differences were identified in eight variables, and all eight remained significant after the Holm–Bonferroni correction. Academic staff reported higher mean scores for the frequency of generative AI use, perceived uncertainty, perceptions of AI use as an academic integrity violation, AI integration, and transparency. Students reported higher scores for AI use for academic purposes, tolerance toward AI use, and perceptions related to academic integrity and ethics. The largest effect size

was observed for perceptions of AI use as a violation of academic integrity (d = 1.62). No statistically significant differences were found regarding the importance of academic integrity or the two citation-related variables. Overall, the findings indicate meaningful differences between academic staff and students across several dimensions of generative AI use and perceptions.

5. Discussion

The findings of this study provide a multidimensional understanding of how students and academic staff perceive and use generative artificial intelligence in higher education. Statistically significant differences were identified across eight of the eleven variables examined, and these differences remained significant following the Holm–Bonferroni correction. At the same time, the findings revealed important areas of convergence between the two groups. Overall, the results suggest that the implications of generative AI extend beyond patterns of technology use and encompass broader questions concerning academic integrity, ethical boundaries, perceived uncertainty, transparency, citation practices, and the responsible integration of AI into academic work.

One notable finding was that academic staff reported a significantly higher frequency of generative AI use than students. This difference was relatively modest in magnitude (d = 0.40), suggesting that although academic staff reported more frequent use, the difference between the groups should not be overstated. This finding indicates that generative AI is relevant not only to student learning but also to the academic and professional activities of university staff. The higher reported frequency among academic staff may be associated with the range of activities in which generative AI can potentially be applied, including teaching preparation, development of learning materials, organization of academic content, assessment-related tasks, feedback, and research support. However, because the study employed a cross-sectional self-report design and did not directly examine the specific activities underlying this difference, these explanations remain tentative.

This finding is broadly consistent with contemporary literature on the expanding role of generative AI in higher education. Kasneci et al. (2023) emphasize that large language models create opportunities for both students and educators, including content development, personalized support, feedback, and assistance with academic tasks. Similarly, Dwivedi et al. (2023) highlight the broader implications of generative AI for professional and academic practices, including potential changes in routine tasks and educational responsibilities. These perspectives provide a useful framework for interpreting the reported frequency of AI use among academic staff, although the present findings do not establish the specific reasons for this pattern.

An important distinction emerged between the general frequency of generative AI use and its use specifically for academic purposes. Although academic staff reported higher scores for the frequency of AI use, students reported significantly higher scores for the variable measuring AI use for academic purposes. The difference in academic-purpose use was substantial (d = − 0.98), indicating a pronounced difference between the groups on this measure. These findings should not necessarily be interpreted as

contradictory because the two variables represent distinct dimensions of AI engagement. Students may use generative AI more intensively for activities directly associated with their academic work, whereas academic staff may engage with these technologies across a wider range of professional responsibilities. Nevertheless, the precise distinction between these measures depends on their operational definitions and questionnaire wording.

Previous literature has documented the growing relevance of generative AI for academic writing, information retrieval, idea generation, translation, and learning support (Kasneci et al., 2023; Tlili et al., 2023). The present findings reinforce the importance of distinguishing between the frequency, purpose, and context of AI use rather than treating engagement with generative AI as a single behavioral construct.

From a practical perspective, these findings suggest that institutional policies on generative AI should address both students and academic staff. University guidance should consider the responsible use of AI in learning, teaching, assessment, research, and other academic activities. Clear institutional guidelines, professional development opportunities, and standards for ethical and transparent AI use may contribute to the responsible integration of these technologies into higher education (Kasneci et al., 2023; Wang et al., 2024).

Another major finding concerns academic integrity and ethics. Both students and academic staff reported high levels of perceived importance of academic integrity, and no statistically significant difference was identified between the groups. This finding suggests that both groups attach considerable importance to academic integrity as a general academic principle. However, the absence of a statistically significant difference should not be interpreted as demonstrating that their perceptions are identical. Rather, the available evidence did not establish a meaningful between-group difference on this particular measure.

A more differentiated pattern emerged when participants evaluated the relationship between generative AI and academic integrity. Academic staff reported significantly higher agreement that the use of generative AI in academic assignments constitutes a violation of academic integrity, with the largest effect size observed in the study ($d = 1.62$). In contrast, students reported significantly higher tolerance toward the use of generative AI in academic tasks ($d = -0.84$). Students also reported higher scores on the broader measure concerning perceptions of generative AI in relation to academic integrity and ethics ($d = -0.58$). The interpretation of this broader measure should remain aligned with its specific questionnaire wording and scoring direction.

Taken together, these findings suggest that differences between students and academic staff are more pronounced in their evaluations of AI-assisted academic practices than in the general importance they assign to academic integrity. This distinction is important because agreement on the value of academic integrity does not necessarily imply agreement on which forms of technological assistance are academically acceptable.

This interpretation is consistent with contemporary discussions of generative AI and academic integrity. Cotton et al. (2023) and Perkins (2023) emphasize the challenges associated with distinguishing legitimate technological assistance from practices that may undermine independent academic work. Generative AI raises questions concerning authorship, originality, authenticity, and individual intellectual contribution, particularly when AI-generated content is incorporated into academic assignments without appropriate disclosure.

The greater tolerance reported by students may be considered alongside research suggesting that students can perceive generative AI as a legitimate form of academic support under particular conditions. Gruenhagen et al. (2024) found that students' perceptions of AI-assisted assessment practices are complex and that AI use is not necessarily regarded as equivalent to conventional forms of academic misconduct. This perspective is compatible with the greater tolerance observed among students in the present study, although the findings do not establish the specific reasons underlying their responses.

Conversely, the more critical evaluations reported by academic staff may be associated with their responsibilities for maintaining assessment standards, evaluating individual contributions, and safeguarding the credibility of academic work. Eke (2023) emphasizes that generative AI introduces challenges extending beyond conventional plagiarism, including difficulties in evaluating the authenticity of student contributions. Accordingly, the differences observed in the present study may reflect distinct interpretations of acceptable academic assistance rather than a fundamental disagreement about the importance of academic integrity.

Importantly, the findings should not be interpreted as evidence that academic staff oppose generative AI. Academic staff reported both higher general frequency of AI use and higher scores for the integration of generative AI tools into academic tasks. These results indicate that more critical evaluations of AI use in relation to academic integrity can coexist with relatively high reported engagement with the technology. The findings therefore challenge a simplified distinction between students as users of AI and academic staff as opponents of its adoption.

Another important finding concerns perceived uncertainty regarding generative AI use. Academic staff reported significantly higher uncertainty than students, with a large effect size ($d = 0.91$). This result indicates a substantial difference in the groups' reported uncertainty. However, because the study did not directly establish the institutional or individual factors responsible for this difference, it cannot be concluded that unclear institutional policies were its primary cause.

One possible interpretation is that academic staff encounter additional responsibilities when evaluating appropriate AI use in teaching, assessment, and academic supervision. These responsibilities may create questions about acceptable assistance, individual academic contribution, and the consistent application of academic integrity standards. Nevertheless, this interpretation requires further investigation.

Institutional uncertainty surrounding generative AI has been recognized in the international literature. Stone (2025) discusses ambiguity surrounding AI use in higher education, while Jin et al. (2025) identify differences in institutional adoption policies and guidelines. These studies provide relevant context for interpreting uncertainty concerning generative AI, although the present research does not directly measure the influence of institutional policies on participants' responses.

The findings regarding transparency add another dimension to this pattern. Academic staff reported significantly higher scores concerning transparency in the use of generative AI in university assignments and projects ($d = 0.53$). This difference suggests that transparency represents an area in which students and academic staff report distinct responses. However, the precise behavioral or attitudinal meaning of the higher scores depends on the wording and measurement of the transparency variable.

Transparency is relevant to responsible generative AI use because AI assistance may contribute to academic work without being immediately apparent in the final product. Clear disclosure can help clarify the role of AI-generated material, individual academic contribution, and accountability. International analyses of university AI policies similarly emphasize the importance of guidance concerning disclosure, acceptable use, and transparency (Jin et al., 2025; Wang et al., 2024).

The combination of higher perceived uncertainty and higher transparency scores among academic staff is noteworthy. One possible interpretation is that academic staff perceive a greater need for clear expectations regarding AI-assisted academic work. However, because the study examined between-group differences rather than statistical associations between uncertainty and transparency, it cannot establish that these two variables are directly related. Nevertheless, the findings are relevant to broader ethical frameworks that identify transparency, accountability, and responsibility as central principles of AI governance (Jobin et al., 2019).

A different pattern emerged for citation practices. No statistically significant difference was identified between students and academic staff regarding citation practices for AI-generated content ($p = .053$), and no significant difference was observed for recommended citation practices ($p = .940$). Both findings remained nonsignificant following the Holm–Bonferroni correction.

The result concerning citation practices for AI-generated content deserves particular attention because the unadjusted p-value was close to the conventional significance threshold. Nevertheless, this result should not be described as statistically significant or as evidence of an established between-group difference. The observed difference in mean scores may warrant further investigation, but the present analysis does not provide sufficient evidence to conclude that the groups differ on this measure.

These findings indicate that the statistically significant difference observed for transparency does not extend uniformly to the two citation-related variables. Transparency and citation should therefore be considered related but distinct dimensions of responsible AI use.

The absence of significant between-group differences in citation practices may be considered in the context of evolving institutional standards. Universities and academic disciplines continue to differ in how they address acknowledgment, disclosure, and citation of AI-generated material. Wang et al. (2024) document variation in university policies concerning generative AI, while Jin et al. (2025) similarly identify differences in institutional approaches to AI governance. These studies provide contextual explanations for why citation practices may remain an area requiring institutional clarification.

However, the present findings do not establish that the two groups have identical citation practices or experience the same degree of uncertainty regarding citation. The results indicate only that statistically significant differences were not detected. Further qualitative research would be useful for examining how students and academic staff understand the distinctions between disclosure, acknowledgment, and formal citation of AI-generated material.

Another relevant finding concerns the integration of generative AI tools into academic tasks. Academic staff reported significantly higher scores than students ($d = 0.86$), indicating a substantial between-group difference on this measure. Together with their higher reported general frequency of AI use, this result suggests that academic staff demonstrate relatively high engagement with generative AI across the dimensions measured in the study. At the same time, students reported higher scores for AI use specifically for academic purposes.

This pattern further illustrates that engagement with generative AI is multidimensional. Higher scores on one measure of AI use do not necessarily imply higher scores across all measures. Differences in general frequency, academic-purpose use, and integration may reflect the distinct meanings and contexts captured by these variables.

The broader literature supports the importance of considering pedagogical as well as technological dimensions of generative AI integration. Kasneci et al. (2023) emphasize both the opportunities and challenges of large language models for teaching and learning, while Grassini (2023) highlights the need to balance the educational potential of AI with concerns about its consequences for academic practice. Similarly, Long and Magerko (2020) identify AI literacy as an important competency for understanding, evaluating, and responsibly interacting with AI systems. In this context, universities should approach generative AI integration as part of broader developments in teaching, learning, assessment, and academic governance.

Beyond the individual findings, the present study contributes to the literature by comparing students and academic staff within the same institutional context. The results do not support a simple division between students as enthusiastic users of AI and academic staff as resistant to its adoption. Instead, both groups report engagement with generative AI and assign considerable importance to academic integrity, while significant differences emerge in their perceptions of acceptable use, uncertainty, integration, tolerance, and transparency. This multidimensional pattern is consistent with the broader argument that responsible AI integration requires governance structures capable of balancing

technological innovation, pedagogical value, and ethical responsibility (Dwivedi et al., 2023; Jobin et al., 2019).

The findings provide different levels of support for the four hypotheses formulated in the study.

H1 proposed that students and academic staff would differ significantly in their perceptions of generative AI in relation to academic integrity and ethics. The findings support H1. Significant between-group differences were identified in perceptions of AI use as a violation of academic integrity, tolerance toward AI use, and the broader measure concerning academic integrity and ethics. However, no statistically significant difference was identified in the perceived importance of academic integrity. These results suggest that the groups differ in specific evaluations of AI-assisted academic work while attaching similarly high importance to academic integrity as a general principle. This interpretation is consistent with concerns in the literature regarding authorship, authenticity, and the changing boundaries of acceptable AI assistance (Cotton et al., 2023; Eke, 2023; Perkins, 2023).

H2 proposed that students would report higher levels of generative AI use for academic purposes than academic staff. The findings support H2, as students reported significantly higher scores on the variable measuring generative AI use for academic purposes. This result should be distinguished from the separate finding that academic staff reported a higher general frequency of AI use. The two variables represent different aspects of AI engagement, and their interpretation should remain consistent with the operational definitions used in the study.

H3 proposed that students and academic staff would differ significantly in their perceptions of institutional uncertainty concerning generative AI use in higher education. The findings support H3, with academic staff reporting significantly higher perceived uncertainty. This result is consistent with international discussions emphasizing the evolving and heterogeneous nature of institutional approaches to generative AI (Jin et al., 2025; Stone, 2025; Wang et al., 2024). However, the present findings do not establish whether differences in uncertainty were caused by institutional policy, professional responsibilities, prior experience, or other factors.

H4 proposed that students and academic staff would differ significantly in their attitudes toward transparency and practices related to acknowledging AI-generated content. The findings provide partial support for H4. A statistically significant difference was identified for transparency, with academic staff reporting higher scores. However, no statistically significant differences were detected for citation practices for AI-generated content or recommended citation practices. H4 should therefore be considered partially supported rather than fully supported. This distinction reinforces the importance of treating transparency, acknowledgment, and citation as separate dimensions rather than interchangeable indicators.

Overall, H1, H2, and H3 were supported, whereas H4 received partial support. The pattern of hypothesis testing reinforces the conclusion that differences between students and academic staff depend on the specific dimension of generative AI use or perception being examined.

The findings have several theoretical and practical implications for higher education. At the theoretical level, they support a multidimensional approach to understanding generative AI engagement. Frequency of use, purpose of use, ethical perceptions, uncertainty, integration, transparency, and citation practices represent distinct dimensions that should not be reduced to a single measure.

This distinction is particularly evident in the finding that academic staff reported higher general frequency of AI use while students reported higher use for academic purposes. The findings also indicate that differences concerning generative AI do not necessarily correspond to differences in the perceived importance of academic integrity. Both groups assigned high importance to academic integrity, yet they differed in their evaluations of AI-assisted academic work. This pattern highlights the challenge of translating established academic values into clear expectations for emerging AI-assisted practices (Cotton et al., 2023; Perkins, 2023).

From a practical perspective, higher education institutions should develop clear and accessible policies specifying acceptable and unacceptable forms of generative AI use in teaching, learning, assessment, and research. These policies should address authorship, disclosure, transparency, citation, accountability, and individual responsibility while allowing flexibility for disciplinary and task-specific differences. Analyses of university AI policies emphasize the importance of coherent institutional guidance as higher education institutions continue to adapt to generative AI (Jin et al., 2025; Wang et al., 2024).

Universities should also invest in AI literacy for both students and academic staff. AI literacy should extend beyond technical competence to include critical evaluation of AI-generated information, awareness of limitations and biases, ethical decision-making, responsible authorship, transparency, and appropriate acknowledgment of AI assistance. The importance of developing competencies for understanding and critically engaging with AI has been emphasized in the broader AI literacy literature (Long & Magerko, 2020).

Assessment practices also require attention. The increasing availability of generative AI challenges traditional approaches to evaluating individual academic contributions and reinforces the relevance of assessment designs emphasizing critical thinking, reasoning, reflection, problem-solving, and authentic application of knowledge. These considerations are closely connected to broader concerns regarding the implications of generative AI for academic integrity and authentic student work (Eke, 2023; Grassini, 2023; Perkins, 2023).

Finally, institutions should distinguish clearly between transparency, disclosure, acknowledgment, and formal citation. The present findings demonstrate that students and academic staff differed significantly regarding transparency but not regarding the two citation-related variables. Institutional policies should therefore clarify when AI use is permitted, when disclosure is required, how disclosure should be made, and when formal citation or another form of acknowledgment is appropriate. Greater clarity in these areas may help strengthen academic accountability and support consistent expectations for responsible AI use (Jin et al., 2025; Jobin et al., 2019; Wang et al., 2024).

Several limitations should be considered when interpreting the findings. First, the study employed a cross-sectional design. Although this design allows differences between students and academic staff to be identified at a particular point in time, it does not permit causal conclusions or determine how perceptions and practices change over time. This limitation is particularly relevant in the context of generative AI because technologies, institutional policies, and patterns of use continue to develop rapidly.

Second, the study relied on self-reported perceptions and practices. Self-report measures may be influenced by social desirability, recall limitations, and differences in participants' interpretations of questionnaire items. Consequently, reported patterns of AI use and attitudes should not automatically be interpreted as direct measures of actual behavior.

Third, the study was conducted at a single university in Kosovo using convenience sampling. The findings therefore reflect a specific institutional context and should not be generalized automatically to other universities, national education systems, or cultural contexts. The unequal group sizes—168 students and 34 academic staff—should also be considered when interpreting the comparative findings. Although Welch's independent-samples t-test was used to accommodate unequal group variances and sample sizes, the relatively small academic staff sample remains a limitation regarding the precision and generalizability of the estimates.

Fourth, the study did not examine potentially relevant individual and contextual characteristics such as academic discipline, field of study, level of digital competence, prior experience with generative AI, or professional experience. Previous research indicates that AI use and perceptions may be influenced by technological experience, educational context, and institutional conditions (Kasneci et al., 2023; Long & Magerko, 2020).

An additional consideration concerns the interpretation of multiple questionnaire dimensions. Although the study identified significant differences across several measures, the relationships among these measures were not directly examined. Therefore, differences in uncertainty, transparency, integration, and ethical perceptions should not be interpreted as evidence of direct associations or causal relationships between these constructs.

Future research could address these limitations through longitudinal designs examining changes in perceptions and practices as generative AI technologies and university policies evolve. Mixed-methods studies combining quantitative surveys with interviews or focus groups could provide deeper insight into why students and academic staff interpret acceptable AI use differently. Multi-institutional and cross-national studies would also be valuable for determining the extent to which institutional and cultural contexts influence AI use, academic integrity, transparency, and citation practices.

Future studies should additionally investigate how AI literacy relates to responsible use, whether institutional policies contribute to reduced uncertainty, and how assessment designs influence student and staff perceptions of appropriate AI assistance. Given the continuing variation in university policies

documented internationally, comparative research on institutional governance and disclosure practices represents another important direction for future research (Jin et al., 2025; Wang et al., 2024).

Overall, the findings demonstrate that the integration of generative artificial intelligence into higher education is not solely a technological issue but also a pedagogical, ethical, and institutional challenge. Students and academic staff share important common ground regarding the value of academic integrity, yet they differ across several dimensions concerning AI use, ethical interpretation, perceived uncertainty, integration, tolerance, and transparency. Addressing these differences requires institutional approaches combining clear policies, AI literacy, transparent practices, appropriate acknowledgment standards, and meaningful dialogue among students, academic staff, and university leadership. Such an approach may help higher education institutions realize the educational potential of generative AI while preserving academic integrity, accountability, and responsible academic practice (Dwivedi et al., 2023; Jobin et al., 2019; Kasneci et al., 2023).

6. Conclusions

This study examined the perceptions and reported practices of students and academic staff regarding generative artificial intelligence in higher education, with particular attention to patterns and purposes of use, academic integrity and ethics, institutional uncertainty, transparency, citation practices, and the integration of generative AI into academic activities. Overall, the findings demonstrate that students and academic staff share important common ground regarding the value of academic integrity but differ significantly in several aspects of how they use, perceive, and evaluate generative AI within the university context.

The findings revealed a multidimensional pattern of differences between the two groups. Academic staff reported a higher general frequency of generative AI use, greater perceived uncertainty regarding its use, stronger perceptions of AI use as a potential violation of academic integrity, higher integration of generative AI tools into academic assignments, and higher scores regarding transparency. In contrast, students reported higher levels of generative AI use specifically for academic purposes, greater tolerance toward its use, and higher scores regarding perceptions of generative AI in relation to academic integrity and ethics. These findings demonstrate that differences between students and academic staff are not uniformly associated with either greater acceptance or greater use of generative AI; rather, they depend on the specific dimension and context being examined.

At the same time, no statistically significant differences were identified between students and academic staff regarding the perceived importance of academic integrity, citation practices for AI-generated content, or recommended citation practices for AI-generated materials. This pattern suggests that the two groups are more comparable on these dimensions, despite the significant differences observed in other aspects of generative AI use and perception. In particular, the shared emphasis on academic integrity indicates that the principal challenge may not lie in whether academic integrity is valued, but in

how established principles of integrity are interpreted and applied to emerging forms of AI-assisted academic work.

The findings also provide differentiated support for the study hypotheses. H1, which predicted differences between students and academic staff in their perceptions of generative AI in relation to academic integrity and ethics, was supported. H2 was also supported, as students reported higher levels of generative AI use for academic purposes than academic staff. H3 was supported by the significant difference in perceived institutional uncertainty, with academic staff reporting higher levels. H4 received partial support: academic staff reported significantly higher scores regarding transparency, whereas no statistically significant differences were identified for citation practices or recommended citation practices. These findings reinforce the importance of treating transparency, acknowledgment, and citation as related but distinct dimensions of responsible AI use.

From a scientific perspective, the study contributes to the growing literature on generative AI in higher education by providing a comparative analysis of students and academic staff within the same institutional context. It demonstrates that the challenges associated with generative AI extend beyond technological adoption and include pedagogical, ethical, and institutional dimensions. The findings further indicate that generative AI should not be approached exclusively as either a threat to academic integrity or an educational opportunity. Instead, its implications depend on how the technology is used, the purposes it serves, the degree of transparency surrounding its use, and the institutional frameworks within which AI-assisted practices occur.

Overall, the study highlights the need for a balanced and institutionally coordinated approach to generative AI in higher education. Realizing its educational potential while protecting academic integrity requires clear institutional policies, appropriate standards for transparency and acknowledgment, continued development of AI literacy among students and academic staff, and assessment practices that preserve meaningful individual intellectual contribution. Such an approach can support the responsible integration of generative AI while maintaining the principles of academic integrity, accountability, transparency, and academic responsibility.

6.1. Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. **1. Develop clear institutional policies for generative AI use.** Higher education institutions should establish accessible and regularly updated policies defining acceptable and unacceptable uses of generative AI in teaching, learning, assessment, and research. Such policies should clearly address academic integrity, authorship, accountability, transparency, and individual responsibility.
2. **2. Establish clear standards for transparency, disclosure, and acknowledgment.** Universities should distinguish between transparency about AI use, disclosure of AI assistance, acknowledgment of AI-generated contributions, and formal citation. Clear guidance should specify when AI use must be

declared, how disclosure should be made, and when citation or another form of acknowledgment is appropriate.

3. **3. Strengthen AI literacy among students and academic staff.** Universities should provide training, workshops, and professional development opportunities addressing not only the technical use of generative AI but also critical evaluation of AI-generated information, ethical decision-making, limitations and biases of AI systems, responsible authorship, academic integrity, and appropriate disclosure practices.
4. **4. Review teaching and assessment practices.** Higher education institutions should encourage assessment approaches that emphasize critical thinking, reasoning, reflection, problem-solving, creativity, and authentic application of knowledge. Assessment design should also enable students to demonstrate meaningful individual intellectual contribution in contexts where generative AI tools are readily available.
5. **5. Promote a culture of transparency and responsible AI use.** Students and academic staff should be encouraged to communicate transparently about the role of generative AI in academic work. Rather than relying exclusively on restrictive approaches, institutions should promote responsible use through clear expectations, ethical guidance, and shared accountability.
6. **6. Provide targeted support for academic staff.** Given the higher level of perceived uncertainty reported by academic staff, institutions should provide specific guidance and professional development on integrating generative AI into teaching, designing AI-aware assessments, evaluating AI-assisted student work, and applying academic integrity standards consistently.
7. **7. Continuously monitor generative AI use and institutional policy effectiveness**. Because generative AI technologies and practices are evolving rapidly, institutions should periodically evaluate patterns of AI use, emerging academic integrity concerns, policy effectiveness, and the experiences of students and academic staff. Institutional guidance should be revised when necessary to respond to technological and educational developments.
8. **8. Promote inter-institutional and interdisciplinary collaboration**. Universities, educational authorities, academic communities, and relevant professional bodies should exchange experiences and effective practices concerning generative AI. Such collaboration may contribute to greater consistency in standards while allowing sufficient flexibility for disciplinary and institutional differences.
9. **9. Extend future research across institutions and contexts**. Future studies should include larger and more diverse samples, multiple universities, different academic disciplines, and national and international contexts. Longitudinal and mixed-methods designs would be particularly valuable for examining how perceptions and practices change over time and for understanding the reasons underlying differences between students and academic staff.
10. **10. Examine additional factors influencing responsible AI use**. Future research should investigate variables such as AI literacy, digital competence, academic discipline, previous experience with generative AI, institutional policy awareness, and professional experience. Examining these factors may provide a more detailed understanding of the conditions that influence the adoption, acceptance, and responsible governance of generative AI in higher education.

Declarations

Author Contribution

F.M wrote the main manuscript text V.K collected all data and research

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