

Integrating Generative AI for Assessment and Feedback in Higher Education in Albania

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Abstract: The rapid development of Generative Artificial Intelligence (GenAI) is transforming assessment and feedback practices in higher education, creating both opportunities and challenges for teaching and learning. This empirical study, situated within Aleksandër Xhuvani University investigates how GenAI is integrated into assessment and feedback practices in higher education. The study investigates 57 educators' and 128 students' perceptions, experiences and expectations regarding the use and feedback with the aim of informing evidence-based pedagogical innovation. It seeks to answer five research questions. (1) What GenAI tools are integrated in assessment and feedback activities? (2) What do educators and students need for GenAI integration? (3) How to integrate GenAI tools in pedagogical practice? (4) What are the experienced and desired impacts of GenAI tools? and (5) What are the foreseeable pitfalls of using GenAI tools? Methodologically, the study applies a mixed-method, qualitative exploration through open-ended questions and a quantitative survey based research design administered to higher education educators and students. The findings indicate that currently the most commonly used GenAI tools are large language models and plagiarism detection tools by both groups of respondents. The main reason for using these tools appears to be for research purposes such as essays or scientific papers. The respondents provided almost identical answers regarding the perceived risks of using AI tools and gave valuable information about their needs and the integration of GenAI into higher education institutions. Concerns persist regarding plagiarism, over-dependence on AI-generated content and the absence of clear regulatory frameworks in Albanian universities. The results contribute to Albanian educational research by identifying priority areas for institutional policy development, capacity building, and the design of ethical and inclusive GenAI-supported assessment frameworks. They offer transferable insights for higher education institutions and policymakers seeking to integrate GenAI responsibly and effectively into assessment and feedback practices across Albanian context and beyond.

Keywords: Generative AI, Assessment, Feedback, Higher Education, Albania

1. Introduction

Assessment and feedback represent critical components of the learning process, as they help evaluate student learning outcomes while guiding students toward academic improvement. However, traditional assessment practices often face challenges such as large class sizes, limited time for detailed feedback, and increasing administrative workload for educators. In this context, GenAI presents a promising opportunity for both educators and students. GenAI tools offer opportunities for educators to enhance efficiency by assisting educators in grading, generating feedback, and designing assessments.

Despite growing global interest in artificial intelligence in education, empirical evidence regarding the adoption and perceptions of GenAI among academics remains limited, particularly in developing higher education contexts. Understanding how educators and students perceive and use these technologies is crucial for designing institutional policies and pedagogical strategies that support responsible AI integration.

This study therefore aims to explore the use of generative AI tools in assessment and feedback practices in higher education. The study is situated within Aleksandër Xhuvani University, a public university in Albania founded in 1991 which is considered one of the most prominent universities in the country for training teachers, specialists, and young researchers in various fields of study. Aleksandër Xhuvani University comprises over 6,480 students across 3 PhD, 24 MSc, 21 Professional Masters, 8 Professional Programs and 33 BSc programs, with 217 researchers and full time educators and 326 part-time educators. Specifically, the study investigates the level of familiarity with GenAI among educators and students, the frequency of its use in assessment-related tasks, and the perceived risks associated with its adoption. It seeks to answer five research questions. (1) What GenAI tools are integrated in assessment and feedback activities? (2) What do educators and students need for GenAI integration? (3) How to integrate GenAI tools in pedagogical practice? (4) What are the experienced and desired impacts of GenAI tools? and (5) What are the foreseeable pitfalls of using GenAI tools?

2. Literature Review

The integration of Artificial Intelligence (AI) into higher education has accelerated significantly in recent years, particularly following the emergence of Generative Artificial Intelligence (GenAI) tools such as ChatGPT, Claude, and Google Gemini. These technologies are increasingly influencing assessment and feedback practices by enabling automated content generation, personalized responses, and adaptive learning support. The growing accessibility of large language models (LLMs) has generated extensive scholarly debate regarding their pedagogical potential, ethical implications, and impact on academic integrity in higher education.

Early studies on AI in education focused primarily on intelligent tutoring systems and automated grading technologies (Luckin et al., 2016). However, the emergence of generative AI has shifted attention toward more sophisticated systems capable of producing human-like text, supporting feedback generation, and assisting both educators and students in academic tasks (Kasneci et al., 2023). According to Holmes et al. (2022), AI-supported education offers opportunities for improving efficiency, scalability, and personalization in teaching and assessment processes. These developments are particularly relevant in higher education institutions facing increasing workloads, larger student populations, and demands for faster and more individualized feedback.

One of the most widely discussed applications of GenAI in higher education concerns assessment and feedback practices. Feedback is recognized as a central component of effective learning because it helps students identify strengths, weaknesses, and opportunities for improvement (Hattie & Timperley, 2007). Nevertheless, traditional feedback processes are often constrained by limited educator time and institutional resources. Generative AI tools can support educators by automating aspects of grading, generating formative feedback, and assisting in rubric-based evaluations (Bearman et al., 2023). Studies suggest that AI-generated feedback may improve response time and consistency while reducing administrative burden for educators (Chan & Hu, 2023).

Research also indicates that students increasingly use GenAI tools for academic writing, brainstorming, summarization, coding, and problem solving. Cotton et al. (2023) argue that tools such as ChatGPT are transforming student learning practices by functioning as “academic assistants” capable of generating explanations, essays, and draft responses. Similarly, Dwivedi et al. (2023) emphasize that generative AI has the potential to fundamentally reshape educational practices by supporting creativity, collaboration, and personalized learning experiences. However, these opportunities are accompanied by concerns regarding the accuracy and reliability of AI-generated outputs.

A substantial body of literature highlights the ethical and pedagogical risks associated with GenAI adoption in higher education. One of the primary concerns relates to academic integrity and plagiarism. Several scholars argue that generative AI systems may facilitate unauthorized assistance during assessments and make it increasingly difficult to distinguish between original student work and AI-generated content (Tlili et al., 2023). Perkins (2023) notes that traditional plagiarism detection systems are often ineffective in identifying AI-generated text, creating new challenges for universities attempting to preserve academic honesty. These concerns have prompted calls for revised assessment methods emphasizing critical thinking, reflection, and authentic learning activities.

Another frequently discussed issue concerns overreliance on AI technologies. Excessive dependence on generative AI may reduce students’ independent problem-solving abilities and critical thinking skills (Baidoo-Anu & Ansah, 2023). Researchers warn that students may become passive consumers of AI-generated knowledge rather than active participants in the learning process. Furthermore, educators express concerns that increased automation could weaken educator–student interaction and reduce opportunities for meaningful academic engagement (Selwyn, 2019).

Bias, transparency, and data privacy also represent important themes in the literature. Generative AI systems are trained on large datasets that may contain cultural, linguistic, or social biases, potentially reproducing discriminatory patterns in educational contexts (Bender et al., 2021). Zawacki-Richter et al. (2019) argue that institutions must carefully evaluate the ethical implications of AI deployment, particularly regarding fairness and accountability in automated assessment systems. In addition, concerns regarding data protection and student privacy have become increasingly important, especially when external AI platforms process sensitive academic information.

Despite these challenges, numerous scholars argue that responsible integration of GenAI can enhance educational quality when accompanied by appropriate pedagogical strategies and institutional policies. UNESCO (2023) emphasizes the importance of developing ethical guidelines and AI literacy among educators and students to ensure responsible use of generative technologies in education. Similarly, the European Commission

has highlighted the importance of trustworthy AI frameworks that prioritize transparency, human oversight, and inclusion in educational applications.

Research also demonstrates that successful AI integration depends heavily on educator readiness and institutional support. According to Rudolph et al. (2023), many educators recognize the potential benefits of generative AI but lack adequate training and guidance regarding its pedagogical use. Faculty development programs, digital infrastructure, and interdisciplinary collaboration are therefore considered essential for sustainable implementation. These findings are particularly relevant in developing and transitional higher education systems where institutional policies regarding AI remain underdeveloped.

Within the Balkan and Albanian context, empirical studies examining GenAI integration remain limited. Existing research on digital transformation in Albanian higher education has primarily focused on e-learning adoption and digital competencies rather than generative AI applications specifically. Consequently, there is a significant research gap regarding how educators and students in Albanian universities perceive, adopt, and evaluate generative AI tools in assessment and feedback activities.

Overall, the literature suggests that generative AI technologies have the potential to transform assessment and feedback practices by improving efficiency, accessibility, and personalization. However, their implementation also raises important concerns related to academic integrity, ethical governance, transparency, and pedagogical quality. The balance between innovation and responsible use therefore remains a central issue for higher education institutions worldwide.

3. Methodology

In order to achieve the stated research objective, the authors applied a mixed-methods: a qualitative exploration through open-ended questions and a quantitative survey based research design administered to higher education educators and students. Data was collected using an online questionnaire administered through Google Forms for the period February-March 2026. The questionnaire aimed to capture the use and perceptions of generative AI tools in higher education assessment and feedback practices. Specifically, aimed to gain information on prior experience with generative AI tools, frequency of AI use in assessment and feedback, and perceptions of potential risks associated with AI integration. Participation in the survey was voluntary and anonymous, allowing respondents to provide honest and unbiased responses. The final dataset consisted of 57 valid responses from academic staff members and 128 valid responses from students representing different academic disciplines. Risk perceptions section were measured using a five-point Likert scale ranging from 1 (low risk) to 5 (high risk). The collected data were analyzed using descriptive statistical methods, including frequency distributions, percentages, and mean values for Likert-scale variables. These descriptive statistics were used to identify patterns in the adoption of generative AI tools and to examine educators' and students' perceptions of associated risks.

4. Results and discussions

The survey collected responses from 57 academic staff members and 128 students across Aleksandër Xhuvani University from different disciplines. The aim was to examine the use of Generative AI (GenAI) tools in assessment and feedback processes and to identify perceived risks and adoption patterns. Table 1 and Table 2 present some descriptive statistics in order to identify the familiarity with GenAI tools and frequency of use.

Table 1: Prior Experience with GenAI

Experience with GenAI	Percentage (Staff)	Percentage (Students)
Yes	68.4%	85%
No	31.6%	15%
Total	100%	100%

The results confirm that a majority of both respondents reported prior experience using GenAI tools such as ChatGPT or similar systems in teaching-related activities.

Table 2: Frequency of GenAI Use

Frequency of Use	Percentage (Staff)	Percentage (Students)
Occasionally (3–5 times/semester)	33.3%	25%
Rarely (1–2 times/semester)	24.6%	10%
Frequently (monthly)	17.5%	20%
Regularly (weekly)	12.3%	40%
Never	12.3%	5%

The results indicate that GenAI use is primarily occasional rather than routine for the academic staff but almost two-thirds of students use GenAI at least monthly, with a significant portion using it weekly. More than half of staff respondents reported using AI rarely or occasionally. This suggests GenAI is still in an exploratory stage in higher education practice for the academic staff and it is actually more explored by the students. Such frequent use suggests that these tools are and not merely supplementary but are increasingly perceived as essential for academic productivity.

4.1 Research Question 1: What GenAI Tools are Integrated in Assessment and Feedback Activities?

Table 3: Use of GenAI Tools

Genai Tools	Percentage (Staff)	Percentage (Students)
LLM (GPT based tools, Claude, Bard)	59.6%	85%
Plagiarism detection tools	33.3%	8%
Automated assessment and grading platforms	26.3%	6%
Feedback generation tools	14%	10%
Institution provided GenAI tool	8.8%	-
Other GenAI tools	15.8%	8%
None	14%	15%

Results show that LLMs dominate assessment and feedback activities, used by the majority of both groups of respondents. There is a noticeable increase in the use of plagiarism detection tools and automated grading platforms among academic staff, while feedback tools remain a secondary, yet significant, resource for students. The results on table 3 show some differences according the use of GenAI tools among academic staff and students with students across IT and Informatics-Economics programs being the most active users.

4.2 Research Question 2: What do Educators and Students Need for GenAI Integration?

Survey results indicate that educators identify several institutional and professional requirements for the successful integration of generative AI tools in higher education. The most frequently cited needs include research and technological infrastructure, staff qualification and training. This suggests that both technical capacity and educator readiness are perceived as equally critical for effective implementation.

Additionally, international cooperation and academic mobility opportunities were also highlighted as important elements supporting AI integration. These responses indicate that staff respondents view generative AI adoption not only as a technological issue but also as part of a broader academic ecosystem that involves collaboration, knowledge exchange, and exposure to global best practices. Overall, the findings suggest that educators perceive GenAI integration as requiring both institutional investment in infrastructure and systematic professional development for academic staff. On the other hand, the most common uses of GenAI tools among students are writing essays and research papers (70%), solving problems and performing calculations (60%), and preparing project reports (50%). Additionally, 30% of students use GenAI to generate written feedback. A smaller but still notable proportion (25%) use these tools for exam preparation and practicing multiple-choice questions.

4.3 Research Question 3: How to Integrate GenAI Tools in Pedagogical Practice

Respondents were also asked how generative AI tools should be integrated into pedagogical practice. The results indicate a strong preference for gradual and controlled implementation strategies.

The most frequently selected approach was pilot programs in specific departments or courses. This finding suggests that educators prefer testing AI tools in limited contexts before wider institutional adoption.

The second most common approach was a hybrid implementation model combining standardized institutional tools with department-specific applications. This reflects a desire to balance institutional oversight with disciplinary flexibility.

Other proposed approaches include faculty-led adoption with institutional oversight and full integration across programs using standardized tools. A smaller number of respondents supported centralized implementation managed by academic technology teams. These results suggest that educators prefer incremental integration strategies that allow experimentation and adaptation across disciplines rather than immediate large-scale institutional deployment. There is also strong support for integration by students point of view with almost 75% of them confirming it and 10% disagreeing. Integration is seen as most useful in theoretical subjects and project based learning.

4.4 Research Question 4: Experiences and Desired Impacts of GenAI Tools

Educators reported generally moderate to positive perceptions of the potential benefits of generative AI in assessment and feedback processes. Respondents indicated that GenAI tools may help reduce time spent on grading and feedback preparation, support alternative assessment approaches, and enable faster feedback cycles for students. Many educators also noted that AI tools could help reduce lecturer workload and support clear and understandable feedback for students. However, slightly lower levels of agreement were observed regarding the ability of GenAI tools to provide highly personalized feedback or fully consistent grading outcomes. Overall, the findings suggest that educators recognize the efficiency benefits of generative AI technologies, while still expressing moderate reservations about their pedagogical reliability and long-term impact on learning processes. It is also observed a positive impact (75%) of GenAI tools among students. Students report improved productivity, easier project preparation and support in learning practices.

4.5 Research Question 5: Foreseeable Pitfalls of Using GenAI Tools

Respondents also evaluated potential risks associated with the use of generative AI in assessment and feedback practices. The analysis reveals several important concerns among educators and students as described in table 4.

The most significant concern relates to the potential misuse of AI tools by students for academic dishonesty. Many educators expressed concerns that generative AI systems could produce essays, assignments, or exam responses that may bypass traditional plagiarism detection systems. Additional risks identified by educators include privacy and data protection concerns, lack of transparency in AI-generated feedback, possible bias in automated responses, and the risk that excessive reliance on AI tools could reduce meaningful interaction between educators and students. Plagiarism is the most frequently mentioned concern by students (40%), dependance on AI (25%) and accuracy of information (20%). About 15% of students reported no major concerns.

These findings highlight the importance of developing institutional policies, ethical guidelines, and pedagogical strategies that ensure responsible and transparent use of generative AI technologies in higher education.

Table 4: Educators Perceived Risks of GenAI in Assessment

Risk Factor	Mean Score (Staff)
Student misuse for academic dishonesty	4.07
Over-reliance reducing educator–student interaction	3.65
Privacy and data security concerns	3.58
Lack of transparency for students	3.47
Bias in AI-generated feedback	3.26
Technical reliability issues	3.12

From a pedagogical perspective, the results suggest that integration of GenAI into the curriculum is both necessary and inevitable. Educators and students are already using these tools for essays, problem solving, project writing and so on as stated earlier in the paper. Formalizing their use within teaching practices could help ensure that students develop critical skills in evaluating, contextualizing and ethically applying AI-generated content. Ignoring this trend risks widening the gap between institutional expectations and students' lived academic practices. The diversity of responses across faculties and study levels highlights the importance of tailored policies. Integration strategies should be discipline-specific, balancing opportunities for innovation with safeguards against misuse taking in consideration the differences in the adoption and attitudes among different programs.

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Ethics Declaration

This study was conducted in accordance with the ethical principles for research involving human participants and followed standards of voluntary participation, confidentiality, anonymity, and informed consent. Participation in the study was entirely voluntary and all respondents were informed about the purpose of the research prior completing the questionnaire. The data were collected anonymously and treated confidentially as stated in the methodology section. The study did not involve any physical, psychological or social risks beyond those encountered in everyday academic and research activities. Furthermore, the authors declare that there are no conflicts of interest related to this study and that all findings are reported honestly and transparently.

AI Declaration

The authors acknowledge the use of Generative Artificial Intelligence (GenAI) tools, including ChatGPT, Dola and Copilot, during the preparation of this manuscript. These tools were used solely to support language refinement, grammar improvement, structuring of ideas, and drafting assistance during the writing process. All conceptual development, research design, data collection, data analysis, interpretation of findings, and final academic judgments were conducted exclusively by the authors. The authors critically reviewed, edited, and validated all AI-assisted content to ensure accuracy, originality, academic integrity, and compliance with ethical research standards. No AI tool was used to generate, manipulate, or fabricate research data, results, citations, or empirical findings. The authors take full responsibility for the content of this manuscript.

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