

Original Article

Faculty Perceptions of their Assessment Practices in the Age of AI: A Qualitative Case Study

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ABSTRACT

Assessment practices are evolving from traditional methods to more personalized approaches due to the widespread growth of Artificial Intelligence (AI) tools. This change encourages educators to redesign assessments that emphasize real-world applications over memorization. The current qualitative case study explored faculty awareness of new assessment practices in the age of AI at one university in the northern region of Pakistan. Semi-structured interviews were used for data collection from faculty members, purposively selected from four faculties (Arts & Humanities, Biological & Health Sciences, Law & Social Sciences, and Natural and Computational Sciences) of the university. From thematic analysis of the data, two main themes emerged, i.e. evaluating students' learning beyond AI and innovative assessment practices to assess authentic learning. The main findings depicted that teachers used project-based activities, classroom-based tasks, and assessed students through standard criteria. Moreover, the findings focused on assessment tasks exploring critical thinking, problem-solving, and creativity, rather than mere learning and rote memorization. The study suggests that universities may promote authentic assessments by determining criteria and ensuring the ethical use of AI.

Keywords: *Age of AI, Assessment practices, Faculty perceptions, Qualitative case study*

INTRODUCTION

Assessment determines the process of identifying the outcomes, measuring the performance and evaluating the results for improvements through a variety of techniques. Assessment recognizes the core learning objectives that have been achieved in the process relevant to the subject and standards (DeLuca et al., 2025; Owan et al., 2023; Baranovskaya & Shaforostova, 2017). Nevertheless, with the emergence of Artificial Intelligence (AI), there is increasing need to reimagine the process of assessment for higher education. Technology can improve the efficiency of the learning process; it is also creating major challenges in maintaining academic integrity (Simelane-Mnisi, 2025; Swiecki et al., 2022). AI can perform tasks, such as problem solving, developing plans that normally require human intelligence and make decisions based on the given information (Naqvi, 2020; Saxena et al., 2023; Vinothkumar & Karunamurthy, 2023).

Traditional assessment practices for example, final examination detailing long answers, essays, and multiple-choice questions have typically been the primary means of assessing students' academic performance (Mislevy et al., 2012). These practices may not assess students real learning, and this further complicates with the advent of AI. Though, AI technologies benefit and generate many possibilities for learning and teaching, yet there are challenges related to test security, transparency, fairness and reliability (Hao et al., 2024). For these reasons, higher education confronts issues in implementing assessment techniques and require reconsidering the traditional methods (Swiecki et al., 2022). In Pakistan, traditional assessment techniques have been prevailed due to limited infrastructure, faculty training in using

AI tools for assessments (Rubab & Imran, 2023).

The recent studies mostly focus on the use of AI in Pakistani universities (Ali et al., 2025; Khan et al., 2025; Naseer et al., 2025), however, these studies lack a comprehensive national perspective on the role of AI in assessment. The higher education faculty need to rethink their roles, not as dispensers of content but as mentors, facilitators, and critical guides in a world where information is abundant and instantly accessible (Hassan, 2025). This study explores teachers' perceptions of assessment practices following the emergence of AI at one northern-area university in Pakistan. This study is essential for advancing assessment practices and addressing AI's practical and ethical implications in education with reference to Pakistan. The semester norms at the studied university include assignments, presentations, quizzes, midterms, terminal examinations, project work, seminar papers, tutorial participation, practical/lab tests, internships, group discussions, and a final examination and research project to assess student performance.

Research Questions

This research addressed the following questions:

- What is the perception and awareness of university faculty about assessment in the age of AI?
- How have university faculty adopted new assessment methods in response to AI?

LITERATURE REVIEW

Assessment is the process of evaluating students' knowledge and skills and identifying weaknesses in both areas using a variety of techniques. Assessment determines students' progress on their learning journey, indicating whether they are below, meeting, or

exceeding grade expectations, and recognizes individual growth (Shepard et al., 2018). Assessment evaluates students' understanding levels and how much they have learnt in the classroom or other study-related activities (DeLuca et al., 2025). Teachers use a variety of methods to assess their students' understanding and progress. It is the standard of education at institutions and helps in determining students' academic performance. It also helps educators, students, and educational institutions in measuring the goals (Md Din et al., 2023).

Traditional assessment often refers to formal tests that check students' ability to recollect and reproduce the content studied during a course. The most used traditional assessment tools are multiple-choice tests, true/false tests, short responses, and essays (Coombe et al., 2020). According to Norova and Haydarali (2021), traditional assessment focuses on evaluating a student's capability to learn and remember material from the syllabus. It assesses gained knowledge through standardized pen-and-paper tests that are simple and objective. But traditional assessment practices usually decline to acquire diverse learning. Students can exploit them by misuse of generative AI tools for unfair academic benefits, emphasizing the need for strong assessment methods (Matheis & John, 2024). The introduction of AI tools further complicates assessing authentic student learning.

In the era of generative artificial intelligence (GenAI), Bloom's Taxonomy can be used as a benchmark for reevaluating course outcomes and student learning (Almatrafi & Johri, 2025). It is frequently used as a tool to help higher education faculty determine the types or levels of learning planned based on course-level outcomes and, in turn, to align appropriate activities and assessments to support student learning and success (Frietary, 2025). With the help of Bloom's Taxonomy, educators can assess higher-order thinking skills. Similarly, AI can be used evaluating students' abilities to analyze, synthesize, and evaluate ideas, rather than simply remembering or understanding facts (AlAfnan, 2024). By incorporating activities that require application, analysis, and creation, educators can ensure that AI tools are used to enhance critical thinking and problem-solving abilities, fostering deeper learning and authentic assessment (Kurniawan et al., 2025). Teachers can better understand students' needs more quickly and in greater depth. AI-based inventions and innovations are being used and will continue to be used to improve learning and make it more useful and competent (Fitria, 2021).

AI represents an instant driver for change that influences not only how student learning can be

assessed but also what is beneficial to evaluate and, in addition, what and how students learn. This essentially includes the ability to use AI tools, as well as a broader understanding of AI's ethics, limitations, biases, and implications. Vygotsky's zone of proximal development (ZPD) postulates that learning is most effective when the learner is challenged to learn more than he can (Vygotsky, 1978). What one can do without assistance and what one can do with the help of a proficient individual or guide transforms into learning. Based on AI tools in learning and education, and on the application of Vygotsky's theory, the self-assessment process can be customized to serve as an aid in the educational process, cement social interactions, and engage and motivate participants (Cai et al., 2025).

Almas et al. (2024), in the context of a Pakistani university, highlighted the role of authentic assessment in bridging students' learning with real-world applications. While there are direct concerns about academic integrity, adding these new technologies into higher education in a thoughtful and evidence-based way will be the longer-term challenge for assessment design. It unveiled five assessment reform principles that promote flexible, appropriate, and fair tests. To equip students to succeed in a rapidly changing world, these concepts highlight the importance of creating evaluations that are both authentic and forward-looking. All these frameworks work together to provide a strong theoretical basis for rethinking assessment in higher education, ensuring they remain relevant and aligned with the realities of an AI-driven world.

Charles Sturt University (CSU), an Australian university, provides a framework for rethinking assessment strategies in the Age of AI (Zhao et al., 2024). CSU has devised 10 strategies, with practical examples, to redesign assessment tasks to minimize the risk of misusing AI for writing assignments, projects and other forms of authentic assessments. This study follows CSU framework for reconsidering the assessment practices for higher education. This study explores whether the university faculty utilize these strategies in their assessment practices. These strategies include (i) emphasize the learning process, (ii) incorporate authentic assessment, (iii) promote critical thinking, (iv) individualized or personalized assessments, (v) live or recorded interviews or presentations, (vi) find novel or unique ways of designing application-based questions, (vii) peer assessments, (viii) frequent low-stakes assessments, (ix) promote creativity and problem-solving, (x) integrate real-life situations and practical experiences.

The first strategy, emphasize the learning process,

prioritizes students' personal development over grades and helps them develop their critical thinking and self-reflection skills. The second strategy, incorporate authentic assessment, focuses on designing assessments that require students to use their knowledge to solve real-world problems or scenarios; thus, it helps prevent cheating. The third strategy, promote critical thinking, recommends designing exams that include case-based evaluations, debates or discussions, argument analysis, role-playing, and simulations to encourage critical thinking abilities and curb the use of generative AI tools. The fourth strategy, design individualized or personalized assessments, highlights incorporating student choices to enable them to actively participate in the evaluation process, have a better understanding of the assessment tasks, and recognize its significance for their own learning. The fifth strategy characterizes using live or recorded interviews or presentations as assessments to discourage the employment of generative AI technologies (Zhao et al., 2024).

The sixth strategy is to design application-based questions that require students to apply their knowledge in novel ways rather than locating pre-written solutions online or generating with AI tools. Incorporating peer assessment practices is the seventh strategy, which features the practices of students evaluating one another's work. This promotes active learning as students acquire a deeper comprehension of the material and meet learning goals, also reduces the grading time for teachers. The eighth strategy underscores conducting frequent low-stakes assessments. These assessments provide several clear advantages, such as ongoing feedback, motivation, active participation, and decreased test/exam anxiety. Moreover, the final grade is split among several tests, this can lessen the temptation to cheat on important tests. The ninth strategy stresses promoting creativity and problem-solving by designing assignments that require students to solve problems creatively, develop original ideas and solutions. Assessments, such as, ethical dilemma analysis, creative writing, and class presentations can encourage innovation and deter the improper use of generative AI tools.

The tenth strategy is to integrate real-life situations and practical experiences, such as create connections between the curriculum and current events, emphasis their practical applicability and re-establish the human element of education, a characteristic deficient in generative AI technologies (Zhao et al., 2024). With the increasing availability of AI technology, educators are at a crossroads and question whether AI can be used in the classroom. Some appreciate AI's ability to

help with basic duties like grading and personalizing comments, but others are hesitant and doubt how it aligns with their educational objectives. The challenge for educators is finding the right balance using AI to complement, not replace, the meaningful interactions between instructors and students. AI can help, but the educator's role is to guide and assess deeper learning (Swiecki et al., 2022).

METHODOLOGY

A qualitative case study design was used in the current study to gain insight into teachers' perceptions of assessment and their practices in the age of AI. The appropriateness of sample size in qualitative research depends on available resources, the time allotted, and the study objectives (Patton, 1990). The ten participants were purposively selected from seven departments across all faculties of the university, including Arts & Humanities, Biological & Health Sciences, Law & Social Sciences, and Natural and Computational Sciences. Participants who were willing to provide a detailed and thorough description of the intended topic and had at least 5 years of experience in relevant disciplines were purposively selected. In this study, participants' minimum work experience in their relevant discipline was 10 years, and the maximum was 17 years. The two participants were associate professors, three were assistant professors, and five were lecturers.

Research Instrument

To understand teachers' views, interviews with selected teachers were conducted to facilitate in-depth discussion. This study is based on semi-structured interviews. According to DeJonckheere and Vaughn (2019), semi-structured interviews provide the researchers with the opportunity to devise questions beforehand and leave space for the interviewee to express their ideas and opinions.

Data Collection

In this study, data was collected from 10 participants using semi-structured interviews lasting between 25 and 45 minutes. To understand the views of teachers, face to face interviews with selected teachers were conducted to allow for in-depth discussion. Interview protocols were established on the objectives and research questions. The researcher visited the respondents' offices, and interviews were conducted at a convenient time. Some interviews were conducted via email, where the researcher sent the interview protocol, and the participants provided their responses in written form. The interview process was started

by an introduction and a concise description by the researcher on the topic of her research. Urdu and / or English language was used to ask questions, and all interviews were recorded on mobile devices for further process. At the end of the interview, the researcher thanked the participants.

Reliability & Validity

Creswell and Creswell (2017) organized the strategies for validation of qualitative research those used most frequently: use member checking to determine the accuracy of qualitative findings by taking the final report or specific descriptions or themes back to participants; use a rich, thick description to convey the findings. Qualitative researchers provide detailed descriptions of many perspectives about a theme so, the results become more realistic and richer; present negative or discrepant information that runs counter to the themes; spend prolonged time in the field, in this way, the researcher develops an in-dept understanding of the phenomenon under study. In the current study the researcher visited back to the participants to check the accuracy of findings, the researcher provided rich, thick detailed description and many perspectives in written quotes that made the result more realistic and enhanced the validity of this research.

Data Analysis

The interview data were analyzed using thematic

analysis. One of the most common ways to analyze interview-based research is to identify themes (Miles, 1994). To create a meaningful pattern, Braun and Clarke (2006) developed a six-step thematic analysis pattern: First, the data was read and reread multiple times to become familiar with the interviewees' intended meaning, paying close attention to each word; Second, the data was categorized into meaningful codes, which were then broken down into smaller pieces and underlined to highlight information pertinent to the research questions and objectives; and third, themes were sought by identifying recurring and important ideas from the codes. The fourth step involved the researcher reviewing the themes to identify any missing ones, matching them to the study questions, and making any necessary corrections. The fifth step involved improving the ideas, identifying the core of each subject, and giving titles. The topics were summarized in the last stage, and the findings were used to produce a detailed report.

RESULTS & FINDINGS

This qualitative study explored the perceptions of university teachers about assessment practices in age of AI. The thematic analysis of data resulted in one theme offering a comprehensive understanding of university teachers' views regarding assessment in age of AI. The themes that emerged from data analysis are presented in Figure 1.

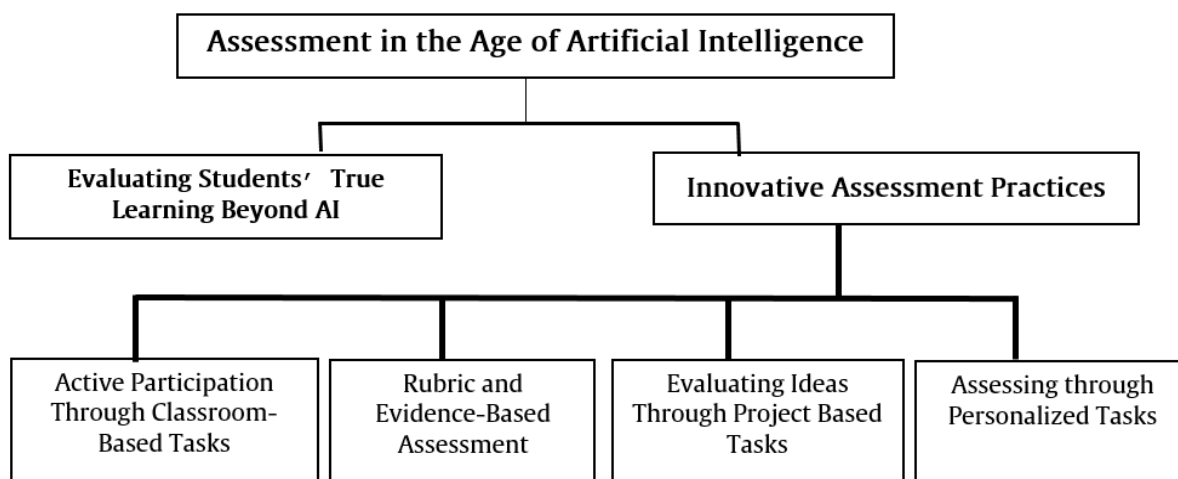


Fig. 1. The Extracted Themes

Theme 1: Evaluating Students' True Learning beyond AI

The University faculty discussed that assessment in the age of AI means assessing students' actual learning while accounting for the easy access to AI tools and resources. Evaluating true Learning in the age of AI involves assessing students' ability to apply knowledge in real-world contexts while using AI as a support tool.

It focuses on critical thinking, problem-solving, and creativity rather than rote memorization. Participant P-01 explained the assessment in the age of AI as,

"Assessment includes evaluating students' knowledge and skills through a learning process, particularly when students have free access to AI tools."

Likewise, another participant P-04, said that,

"I identify the assessment in the age of AI as reviewing

students on what they in reality know rather than coming up with the answers that are made with AI.”

Participant P-05 defined as,

“Assessment in the age of AI requires evaluating students’ insight and problem-solving skills while accounting for the influence of AI tools. It requires introducing tasks that promote true learning, conceptual clarity, and practical applications.”

Participant P-07 defined as,

“Assessment in the age of AI intends evaluating students in ways that examine their understanding, critical thinking, and problem-solving skills, instead of just recalling facts, as AI tools can provide open access to information.”

The participant P-09 viewed as,

“Assessment in this age of technology does not only mean evaluating student learning but considering the effect of AI tools on their academic activity. It involves matching traditional assessment techniques with new approaches that involve students showing authentic understanding and original reflection.”

According to the participants’ statements, the faculty perceives assessment in the age of AI as evaluating students’ genuine learning while reflecting open access to AI tools and resources. With open access to AI, the focus should be on assessing students’ critical thinking, creativity, and capability to apply concepts in real-world circumstances rather than just their knowledge.

Theme 2: Innovative Assessment Practices

To reduce the possible misuse of AI, new assessment methods are being established by the university faculty. These assessment approaches emphasize evaluating students’ critical thinking, creativity, and ability to relate information practically. Instead of being dependent on traditional exams, these methods use a variety of assessment plans, including project-based assignments, oral presentations, and reflective practices, which emphasize students to show a deeper comprehension and solve problems in real time. Personalized assignments and in-class activities further reduce reliance on AI by stimulating creativity and applying acquired knowledge in real-world settings. These methods ensure that students’ learning is evaluated based on their actual skills rather than on artificial intelligence-generated answers.

Theme 2.1: Active Participation Through Classroom-Based Tasks

Active encounters through classroom-based assignments construct an active learning environment

where students work with classmates, use concepts in real time, and interact precisely with the content. Students can show their learning and improve their skills through instant feedback as these projects foster practical involvement, problem-solving, and critical thinking. Activities including group projects, debates and interactive exercises are integrated into classroom assignments to design a more dynamic and effective learning environment ahead of simple listening. The faculty stated that using classroom-based activities to lessen AI usage. In classroom activities, they can monitor and limit mobile phone use.

Participant P-01 mentioned,

“In my class, I ask students to share their views on a topic and then have them prove their responses via AI. I ask students to study a topic and converse it in class, posing questions as ‘why’ and ‘how.’”

Similarly participant P-02 stated,

“My focus is more on class-based tasks than the reliance on home tasks. I emphasized on activities like group work and presentations, which allow students to discuss and present their work in class time.”

Participant P-06 commented as,

“I usually assign tasks that are based on the studies we covered in class, confirming that AI cannot create responses to questions rooted in our practical dialogue. I also conduct oral presentations, which require students to demonstrate their understanding in real-time, preventing the use of AI during assessments.”

The participant P-10 expressed as,

“At the undergraduate level, I ask students to provide reasoning because they rely too strongly on AI. I challenge their approach when they discuss topics using AI-generated information, as they often struggle to defend their points during class discussions.”

The above statements of different participants show that the faculty changed their assessment and focused more on classroom-based activities to avoid excess usage of AI. In classroom-based activities they easily monitored the actual learning of students by monitoring them.

Theme 2.2: Rubric and Evidence-Based Assessment

To guarantee authentic learning, clear rubrics and evidence-based evaluation can be used. Students are pointed to accurately completed assignments and reach certain criteria when they are given a clear perception of expectations through a well-defined rubric. This strategy persuades critical thinking and reduces

dependency on AI-generated content by demanding references and proofs to ensure that students back up their statements with reliable sources. Deeper and more authentic learning knowledge is ensured by authentic assessment, which is supported by proper documentation and not only checks the student's comprehension but also advocates the growth of research capabilities. The faculty stated that they gave clear rubrics to students and inquired them to provide references as evidence to lessen AI usage. By requiring references and proofs to ensure that students prove their arguments with reliable sources, this approach promotes critical thinking and lowers reliance on AI-generated content.

Participant P-01 mentioned giving clear rubrics and evidence-based assessment as,

"I ask my students to create notes and assignments, confirming they prove their information from research articles and books. They must include references, even if the information is sourced from AI."

Responded P-02 stated as,

"I assign tasks with clear criteria, such as requiring students to write in their own words and stay within the given word limits. If I assign any writing task for home, I ask students to record a video while completing it as proof that they have done the work themselves."

Participant P-03 commented as,

"I assign rubrics and clearly communicate its assessment criteria to promote self-directed learning."

Participant P-04 pointed out as,

"I created rubric so I will be able to know what the students are saying and writing and what is their actual understanding. Whenever I give a task, I share rubric. In the rubric I mention what is expected from them or what is the scoring criteria."

Participant P-07 stated as,

"A project is graded on creativity (30%), accuracy (40%), and presentation (30%)."

Participant P-08 commented as,

"A rubric for essays includes criteria like argument clarity (30%), evidence-based analysis (30%), originality (20%), and proper referencing (20%)."

Participant P-09 stated as,

"I have developed clear guidelines on using AI ethically, sharing these with students at the beginning of each course. My criteria include requiring proper citation of AI-generated content and asking students to validate information by comparing it with traditional

sources."

Participant P-10 commented as,

"I clearly give the criteria to students that the similarity index must be below 20%, and AI-generated content must be below 10%."

The above statements show that teachers stated they provided clear rubrics to students and asked them to provide references as evidence to minimize AI usage. This method encourages critical thinking and reduces reliance on AI-generated content by requiring references and evidence to ensure students back up their claims with reliable sources.

Theme 2.3: Evaluating Ideas Through Project-Based Tasks

Project based tasks, oral presentations, and viva exams are useful techniques for evaluating students' knowledge and communication skills in the age of AI. Because they should explain, defend, and increase their knowledge in real time, these approaches demand that students have an actual understanding of the information. Oral presentations ensure that students are dynamically involved in the learning practice, revealing their understanding through communication skills, critical thinking, and the ability to reply to questions or challenges. This compares with written assignments, which may be compressed by AI technologies. Since students must say their opinions genuinely and independently, without relying on AI-created content, this method fosters independent thinking. The faculty revealed that they used project-based tasks, oral presentation, and viva assessment techniques to lessen AI usage. This strategy gives instructors an opportunity to evaluate not only the precision of the information but also the student's cognitive, creativity, and confidence in presenting complicated ideas.

Participant P-03 stated about new assessments practices such as,

"I usually use project-based assignments where students create innovative lesson plans, apply teaching strategies, and solve instructional trials. This evaluates their critical thinking, creativity, and problem solving in tackling diverse learning needs."

Participant P-04 commented about the use of oral presentation and viva as,

"I gave students specific writing tasks and additionally conduct the viva to make sure that there is alignment between the two types of assessments."

Participant P-05 commented as,

"I take presentations and oral viva to assess their

abilities without giving them access to AI.”

Respondent P-06 elaborated as,

“I also conduct oral presentations, which require students to demonstrate their understanding in real-time, preventing the use of AI during assessments. We assign project-based assignments in which students are given a case scenario, and participants take on roles such as lawyers, witnesses, judges, or jury members. Each team research relevant laws, prepares legal arguments, and develops strategies. Lawyers from each side present an overview of their case, question their own witnesses to establish facts, and examine opposing witnesses to challenge credibility or facts. Both teams then summarize their arguments and advocate for a favorable ruling. The jury or judge reflects and delivers a reasoned outcome based on the case’s evidence.”

Participant P-10 commented as,

“I now include reflective assignments, oral presentations, and viva to evaluate student understanding.”

The above quotes from the faculty indicate that they used oral presentations and viva voce methods to reduce AI use. These approaches provide them with an opportunity to evaluate not only the accuracy of the information but also the students’ rationality, creativity, and confidence in presenting complicated ideas.

Theme 2.4: Assessment through Personalized Tasks

By applying personalized assignments for assessment, students can relate with subjects that have personal importance for them, promoting critical thinking and deeper analysis. By customizing assignments to each student’s interests or learning partialities, educators can aid students in making ties between the content and their own experiences or aspirations. When this method is used, students are more inclined to devote time and energy to assignments that feel related and interesting, fostering ownership of the learning process. The faculty cited that they used personalized tasks to decrease AI usage. Personalized assignments offer teachers a chance to assess their students’ application of information in specific situations, reassuring creativity and problem-solving ability. It also provides a more accurate version of each student’s understanding and improvement.

Participant P-04 mentioned the personalized tasks for assessment such as,

“I seek to give more personalized queries that can assess how our student knows at what level our

student knows the concept and give them higher order thinking queries”

Participant P-06 pointed out,

“I construct personalized tasks that involve unique responses, reducing opportunities for complete AI-generated answers.”

Participant P-08 explained personalized tasks such as,

“I apply reflective assignments and personalized tasks to assist independent thought. However, I do not prefer students to use the peer review process for reflection.”

The above findings depicted that the faculty at the university used personalized assessment methods to minimize AI usage. Personalized tasks involve allowing students to choose topics within a subject, such as evaluating a romantic poet’s work based on personal interests, supporting original arguments, and engaging in critical thinking.

Discussion

For judging thoroughly, what the students have learned, how much of this they can comprehend and use effectively requires collection and skimming of related data or results using a variety of assessment methods. The assessment is concluded when these results are utilized to generate inputs for improving future learning. However, this assessment is undermined by the growing use of text-generating AI tools which has compelled academic institutions to review the efficacy of their Assessment techniques. The results of the study indicate that the academia being aware of these challenges employ assessment techniques to gauge the student’s actual learning, while at the same time keeping this consideration in mind that the learner has access to AI tools and related resources. These results not only confirm the study carried out by AlAfnan (2024) but carry this further with a subsequent research work by Paie (2025), which highlights that academia who are well versed with the use and benefits of AI Tools foresee their engagement in teaching. The faculty accomplishes this by employing a greater number of classroom-based activities, which eliminates the use of AI during the assessment. They are better able to gauge the student’s actual learning during these interactions.

While with an open access to AI shifts the emphasis from judging the student’s learning, to evaluating their creativity and application of these concepts in a practical setting making these results aligned with the studies of Kurniawan et al. (2025). To decrease the use of AI, the participants of the study utilized methods such as

presenting the content orally or viva voce techniques. These methods provided the faculty with the ability to assess the students' confidence, reasoning and creativity when presenting such complex content, while at the same time keeping the presented information precise. Another approach targeted at minimizing the use of AI required the students to provide references as proof to support their views from credible sources, while using the provided rubrics. This approach not only promotes critical thinking but also minimizes the student's reliance on AI generated content. To reduce the unethical use of AI analogous techniques have been employed by universities around the globe. The report published by the University of Warwick is such an example, which calls for utilizing the benefits of AI in Higher Education, incorporating formative assessment designs in teaching and assessment, while at the same time retaining academic rigor and integrity (Fischer et al., 2023).

The above personalized assessment approach employed by the university faculty resulted in the reduction of AI usage. It boosted the creativity and problem-solving skills of the students and provided an insight into their usage of information in certain scenarios. The results of this research were consistent with the strategies recommended by the CSU division of Learning and Teaching. Which included the revision of assessment strategies in this age of AI and emphasized the incorporation of authentic assessment techniques which encourage critical thinking.

CONCLUSION

The participants of the study highlighted the importance of recognition by university teachers the influence of AI on students' learning and assessment practices. They highlighted the need to shift to innovative evaluation techniques that value independent learning, problem-solving, and critical thinking because in the era of generative AI tools, the traditional assessment methods might be insufficient. The importance of these innovative assessment methods that can measure actual learning progress can also be realized with the widespread usage, easy access and the growing dependence on the use of AI tools highlighting the need to educate both the instructors and the students about its ethical application.

According to the findings of the study, to counter the influence of AI in educational assessment, teachers have started using sophisticated techniques which enable the teachers to assess the actual learning of the students. This has resulted in a preference for active classroom-based assignments. The students'

dependence on machine generated content was discouraged using performance-based research informed methods and rubrics helping the learners nurture critical thinking and meet expectancies. The university teachers incorporated reflective activities to bolster the learners' educational experiences by fostering critical thinking and self-awareness. Project based activities were assigned to develop the learners' problem-solving abilities while promoting the application of knowledge in real-world scenarios. The teachers' used viva voces and oral presentations to determine the student's creativity, reasoning and communication abilities. Additionally customized tests targeting the learner's unique testing environment bring forth critical thinking with independent problem solving and creativity.

Recommendations

The conclusions of this study are important and have consequences for policymakers, Pakistan's Higher Education Commission, curriculum developers, academic practitioners, students, and industry stakeholders. However, the findings need to be interpreted cautiously, as this case study was conducted at only one university. Future studies may research authentic assessments and explore the practices that leverage the advantages of AI while addressing its challenges. Furthermore, the study findings encompass significance for higher education globally, contributing enlightening perspectives for future researchers interested in investigating the intricacies of assessments in the era of AI.

Competing Interest

The authors had no competing interests.

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