

Reframing Assessments in the Age of AI: A Multidisciplinary Student-Centred Framework for Enhancing Creativity

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Abstract

This study examines how assessment design in higher education can foster creativity while minimising over-reliance on generative artificial intelligence (AI). The increasing availability of AI tools has significantly transformed student learning behaviours, raising concerns about reduced critical thinking, academic integrity, and superficial engagement with learning tasks. Traditional assessment approaches, which often prioritise content reproduction, may inadvertently encourage students to rely on AI-generated outputs rather than engage meaningfully with knowledge construction. This research adopted a qualitative design science research (DSR) approach, drawing on semi-structured interviews with 10 lecturers and 14 students across multiple disciplines at a higher education institution in South Africa. Thematic analysis revealed five key findings: current assessments limit creativity and promote reproduction; AI reliance is driven by uncertainty in assessment expectations rather than student laziness; students prefer authentic, real-world, and multidisciplinary tasks; assessment literacy is low among both students and lecturers; and AI can enhance creativity when integrated ethically. Based on these findings, the study proposes a multidisciplinary student-centred assessment framework comprising creative assessment design, authentic multidisciplinary tasks, and ethical AI integration. The framework contributes to theory and practice by offering a structured approach to redesigning assessments in an AI-enabled educational environment. The study provides practical implications for higher education institutions seeking to balance innovation, creativity, and academic integrity.

Keywords: artificial intelligence, higher education, assessment design, creativity, authentic assessment, student-centred learning.

1. Introduction

Higher education institutions globally are undergoing significant transformation due to the rapid integration of generative artificial intelligence (AI) into teaching and learning environments. AI tools are increasingly used by students to generate content, summarise information, and complete academic tasks. While these tools offer efficiency and accessibility, they also introduce new challenges related to academic

integrity, reduced critical thinking, and over-reliance on automated outputs (Crompton & Burke, 2023). Traditional assessment practices in higher education have historically focused on knowledge reproduction rather than higher-order thinking. Such approaches may inadvertently encourage students to use AI tools to complete tasks without meaningful engagement, thereby weakening the development of creativity and independent reasoning. This creates a critical tension between technological advancement and educational objectives.

Existing responses to AI in education often focus on restriction and detection. However, these approaches do not address the underlying issue, which lies in assessment design. Poorly designed assessments, characterised by ambiguity and lack of authenticity, may drive students towards AI reliance as a coping mechanism rather than as a learning tool. This study argues that the key challenge is not the presence of AI but the design of assessments that fail to promote creativity and meaningful engagement. The aim of this study is therefore to develop a multidisciplinary, student-centred assessment framework that fosters creativity while minimising AI reliance in higher education.

Five research questions guided the study:

1. What are the perceptions of students and lecturers regarding the impact of AI tools on creativity and originality in assessments?
2. What challenges do lecturers face in redesigning assessments to balance academic rigour, creativity, and AI ethics?
3. Which assessment strategies are most effective in encouraging critical thinking and creative problem-solving across different academic disciplines?
4. How can assessment designs in higher education be structured to foster student creativity while minimising over-reliance on generative AI tools?
5. To what extent does a student-centred assessment framework influence engagement, creativity, and academic integrity in the AI age?

2. Literature Review

2.1 Creativity in Higher Education

Creativity is increasingly recognised as a critical competency in higher education, particularly in preparing students for complex and dynamic work environments. However, traditional assessment methods often fail to support creative thinking, instead prioritising standardised responses and memorisation (Ghomi & Redecker, 2019). This limits students' ability to engage in higher-order cognitive processes.

2.2 Authentic Assessment

Authentic assessment focuses on real-world tasks that require application, analysis, and synthesis of knowledge. It has been shown to enhance student engagement and promote deeper learning (Villaruel et al., 2018). Authentic assessments are particularly effective in fostering creativity, as they require students to generate original responses rather than reproduce existing information.

2.3 AI in Education

AI has introduced both opportunities and risks in higher education. While it can support learning and idea generation, it may also lead to dependency if not integrated appropriately (Crompton & Burke, 2023). The challenge lies in designing assessments that incorporate AI in an ethical manner while maintaining academic integrity.

2.4 Assessment Literacy

Assessment literacy refers to the understanding of assessment expectations and criteria. Low levels of assessment literacy among students and lecturers can lead to confusion and uncertainty, which may increase reliance on AI tools (Boud & Dawson, 2021). Improving assessment literacy is therefore essential for effective assessment design.

2.5 Theoretical Framework

2.5.1 Componential theory of creativity

The componential theory of creativity explains that creativity is a result of the interaction between three key elements, namely, domain-specific knowledge, creative thinking skills, and intrinsic motivation (Amabile & Pratt, 2016). Within an educational context, this theory suggests that creativity is more likely to emerge when students are internally motivated and provided with opportunities to explore ideas beyond rigid academic structures.

Highly structured and standardised assessments tend to restrict creative expression, as they often require students to conform to predefined formats and expected answers. In contrast, assessments that are flexible, open-ended, and meaningful encourage students to engage more deeply with content and to produce original responses. When students are given autonomy and multiple ways to demonstrate their understanding, they are more likely to generate work that reflects personal insight and creativity, rather than relying on automated tools.

This perspective supports the argument that assessment design should prioritise flexibility and relevance to stimulate intrinsic motivation. It also highlights that creative outputs are rooted in internal cognitive and motivational processes, which are not easily replicated by AI. In this way, the theory complements broader learning perspectives by emphasising the psychological conditions required for creativity to develop.

2.5.2 Constructivist learning theory

Constructivist learning theory proposes that knowledge is actively constructed by learners through interaction with their environment, rather than passively received from instruction (Fosnot, 2013; Primarni et al., 2024). From this perspective, learning occurs when students engage in meaningful tasks, reflect on their experiences, and connect new knowledge to prior understanding. In the context of assessment design, constructivism supports the use of student-centred approaches that encourage active participation, problem-solving, and critical thinking. Assessments that require students to interpret, apply, and reflect on knowledge are more aligned with

constructivist principles, as they promote deeper engagement and understanding. Such approaches stand in contrast to traditional assessments that focus on memorisation and reproduction.

The relevance of constructivism to this study lies in its emphasis on authentic learning experiences. When assessments are designed to reflect real-world challenges and allow for multiple interpretations, students are more likely to engage in meaningful knowledge construction. This reduces the likelihood of superficial learning and limits the effectiveness of AI as a substitute for genuine understanding. Furthermore, constructivist approaches encourage dialogue, reflection, and iterative learning, all of which support the development of creativity. As such, constructivism provides a strong theoretical foundation for designing assessments that promote both independent thinking and responsible engagement with AI.

2.5.3 Bloom's revised taxonomy

Bloom's revised taxonomy highlights the importance of higher-order cognitive skills, such as analysing, evaluating, and creating, in achieving meaningful learning outcomes (Anderson & Krathwohl, 2001). These levels of cognition require students to engage in complex reasoning processes that go beyond simple recall or comprehension. In an AI-enabled educational environment, this framework is particularly relevant, as generative AI tools are generally more effective at performing lower-level cognitive tasks, such as summarising information or providing basic explanations. However, they are less capable of producing contextually rich, critical, and original responses that require deep understanding and judgement.

Assessments that are designed to target higher-order thinking skills are, therefore, more resistant to inappropriate AI use. By requiring students to synthesise information, evaluate arguments, and create new ideas, educators can encourage deeper engagement with learning material. In support of this perspective, Khlaif (2024) argued that assessment practices should shift from focusing solely on final outputs to evaluating the cognitive processes involved in learning. This theoretical lens reinforces the importance of designing assessments that prioritise reasoning, creativity, and critical thinking. It aligns with the broader aim of this study, which is to reduce reliance on AI by promoting more meaningful and cognitively demanding learning experiences.

3. Methodology

3.1 Research Approach and Design

This study employed a qualitative case study approach to investigate how assessment practices in higher education can be redesigned to promote creativity while supporting academic integrity in an AI-enabled environment. A qualitative design was appropriate as it allowed for an in-depth exploration of the lived experiences and perceptions of both students and lecturers regarding current assessment practices and the use of generative AI tools.

The study was guided by the design science research (DSR) methodology, which focuses on solving practical problems through the development of innovative artefacts. In this study, the process involved identifying the assessment-related challenges associated with AI use, defining the objectives for improved assessment design, developing a structured framework, and evaluating its relevance based on participant insights (Peppers et al., 2014).

3.2 Sampling Strategy

A purposive sampling technique was applied to select participants who had direct experience with teaching, assessment design, and student learning processes. This approach ensured that the data collected were rich in relevance and aligned with the objectives of the study (Etikan et al., 2015). The sample consisted of 10 lecturers representing different academic faculties as well as 14 third- and fourth-year undergraduate students from diverse disciplines. These students had prior exposure to various forms of assessment and were familiar with the use of generative AI tools in their academic work. The inclusion of both lecturers and students allowed for a more comprehensive understanding of assessment practices across different academic perspectives.

3.3 Research Instruments

Data were collected using two semi-structured interview guides, one designed for lecturers and the other for students. The interview questions were developed in alignment with the study's research objectives and focused on key areas, such as assessment design practices, perceptions of creativity in assessments, experiences with generative AI tools, and concerns related to academic integrity. The semi-structured nature of the interviews enabled flexibility, allowing participants to elaborate on their experiences, while ensuring that all relevant themes were consistently explored across interviews (Gillham, 2005).

3.4 Data Collection Procedures

Ethical approval for the study was obtained from the relevant university ethics committee prior to data collection. Participants were invited to take part in the study via email, and informed consent was obtained from all participants before the interviews commenced. A total of 24 interviews were conducted with the 10 lecturers and 14 students over a 4-week period. Each interview lasted between 30 and 45 minutes. All interviews were conducted in English, audio-recorded with participant consent, and subsequently transcribed verbatim to ensure accuracy. Throughout the research process, ethical principles were strictly maintained, including participant confidentiality, voluntary participation, and the right to withdraw from the study at any stage without penalty.

3.5 Data Coding and Analysis Procedure

The collected data were analysed using thematic analysis, following the six-phase approach outlined by Braun and Clarke (2006). The analysis began with an initial familiarisation phase, followed by open coding, where key ideas and recurring patterns were identified. Examples of initial codes included concepts such as "AI as a

support tool”, “reduced creativity”, and “role of lecturers in assessment design”. These initial codes were then grouped through axial coding into broader categories related to assessment design, AI use, and creativity. In the final stage, selective coding was applied to refine these categories into a set of overarching themes that informed the development of the proposed framework. This structured and iterative analytical process ensured that the findings were grounded in the data and aligned with the objectives of the study.

3.6 Trustworthiness and Rigour

To ensure the quality and credibility of the study, several strategies were applied in line with established criteria for trustworthiness in qualitative research, namely, credibility, dependability, confirmability, and transferability (Nowell et al., 2017).

Credibility was achieved through the inclusion of multiple participant groups, specifically both lecturers and students, which enabled data triangulation and provided a more comprehensive understanding of assessment practices and AI use. In addition, semi-structured interviews allowed participants to share detailed experiences, resulting in rich and meaningful data. Prolonged engagement with the data during the coding and analysis process further strengthened the accuracy of interpretations.

Dependability was ensured through the use of a systematic and transparent research process. The study followed a structured DSR approach, and thematic analysis was conducted using clearly defined steps based on Braun and Clarke’s six-phase framework (2006). This consistency enhances the reliability of the findings and allows the research process to be understood and potentially replicated.

Confirmability was supported by grounding all findings in the data collected from participants. The coding process was iterative and evidence-based, ensuring that themes emerged from the data rather than being influenced by researcher bias. Detailed documentation of coding decisions and theme development contributed to maintaining objectivity throughout the analysis.

Transferability was addressed by providing a clear description of the research context, including the higher education setting, participant characteristics, and disciplinary diversity. While the study is context-specific, these detailed descriptions allow readers to assess the applicability of the findings to other higher education environments with similar characteristics.

4. Results

The themes presented in this section form the empirical foundation for the development of the multidisciplinary, student-centred assessment framework. These findings are derived from the analysis of both student and lecturer data, providing a comprehensive understanding of how assessment design interacts with creativity and the use of generative AI in higher education.

4.1 Student Data Analysis

The student sample ($n = 14$) included participants from a wide range of academic disciplines (Figure 1), such as education (Foundation and Intermediate Phases), civil engineering, logistics, business management, small business management, operations and quality management, and project management. Participants were drawn from third- and fourth-year levels. This disciplinary diversity enabled a broad and nuanced understanding of how assessment practices influence both creativity and AI usage across different academic contexts.

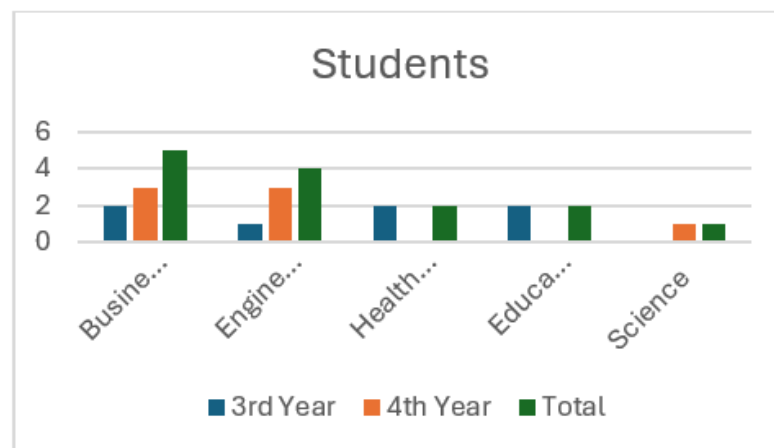


Figure 1: Student demographics

Analysis of the student data resulted in the identification of five interrelated themes that explain students' experiences of AI use, creativity, and assessment practices.

4.1.1 Theme 1: Patterns of AI use in academic work

The students described engaging with AI tools in various ways, ranging from using them to clarify concepts and support understanding to assisting with language refinement and academic writing. Some participants indicated that AI was used as a time-saving mechanism, particularly when facing deadlines, while others acknowledged previous instances of using AI to generate complete responses. These findings suggest that AI usage exists on a continuum, influenced by factors such as task requirements, time pressure, and individual motivation.

Sub-themes included:

- AI as a tool for conceptual understanding
- AI for language and writing support
- AI as a shortcut under time constraints
- AI for generating full responses (past behaviour)

4.1.2 Theme 2: Impact of AI on creativity, learning, and authenticity

Participants raised concerns that frequent reliance on AI may negatively affect creativity and independent thinking. Many students reported that AI use can lead to superficial engagement with content, limiting deeper learning. In addition,

AI-generated outputs were often perceived as lacking authenticity and personal expression, which reduced students' sense of ownership over their work.

Sub-themes included:

- Reduced creativity and independent thinking
- Surface-level learning versus deeper understanding
- Diminished authenticity and personal voice

4.1.3 Theme 3: Influence of assessment design on creativity and AI reliance

The students consistently indicated that the design of assessments plays a significant role in shaping AI usage. Assessments that are practical, project-based, and aligned to real-world contexts were reported to reduce reliance on AI, as they require application, judgement, and contextual understanding. Oral presentations and interactive formats were also viewed as promoting genuine engagement. Furthermore, opportunities for reflection, choice, and personal input were identified as important drivers of creativity.

Sub-themes included:

- Real-world and project-based tasks reduce AI dependence
- Oral assessments enhance engagement and authenticity
- Reflection, choice, and student voice support creativity

4.1.4 Theme 4: Lecturer attitudes and institutional signals

The students highlighted inconsistencies in how lecturers approach AI, often influenced by differing levels of familiarity and comfort with technology. Variations in expectations and unclear institutional guidelines contributed to confusion regarding acceptable AI use. Students expressed a strong preference for clear, consistent, and ethically grounded guidance on AI usage.

Sub-themes included:

- Differences in lecturer attitudes towards AI
- Inconsistent rules and lack of clarity
- Need for clear ethical guidance on AI use

4.1.5 Theme 5: Motivation, accountability, and emotional responses to AI

Student motivation emerged as a key factor influencing AI usage. When students found tasks meaningful and engaging, they were less likely to rely on AI tools. At the same time, some participants reported emotional responses such as guilt, anxiety, and concern about losing their own skills when using AI. These findings highlight the complex psychological dimensions associated with AI use in academic contexts.

Sub-themes included:

- Intrinsic motivation reduces AI reliance
- Emotional responses such as guilt and fear

4.2 Lecturer Data Analysis

The lecturer sample ($n = 10$) represented a range of academic disciplines (Figure 2), including science, engineering, business management, education, humanities, and health sciences. This spread ensured that both theory-driven and practice-oriented perspectives were captured.

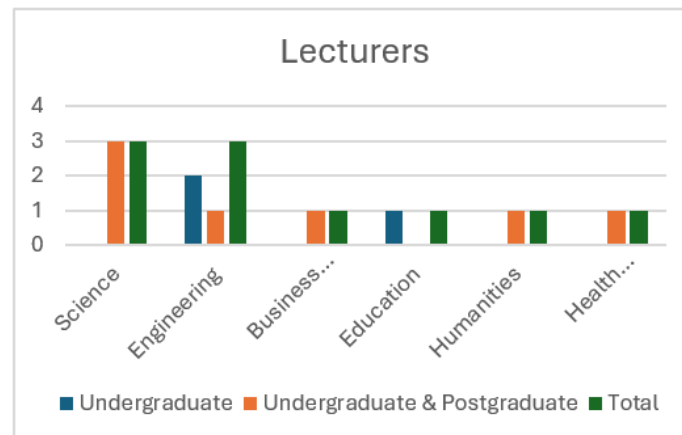


Figure 2: Lecturer demographics

Three major themes emerged from the lecturer data, reflecting how academic staff understand the implications of AI and the evolving demands of assessment design.

4.2.1 Theme 1: Lecturer perceptions, concerns, and institutional constraints

The lecturers expressed a combination of optimism and concern regarding generative AI. While recognising its potential value as a learning tool, many raised concerns about academic integrity and the increasing difficulty of distinguishing between student-generated and AI-generated work, particularly in written assessments. Institutional challenges, including unclear policies, lack of training, and limited access to reliable detection tools, were identified as significant barriers to effective assessment redesign.

Sub-themes included:

- AI as an unavoidable but complex presence
- Concerns about academic integrity and detection limitations
- Institutional gaps and lack of clear guidance

4.2.2 Theme 2: Impact of generative AI on student creativity and learning

The lecturers observed shifts in student behaviour, particularly a decline in originality, independent thinking, and cognitive effort. AI was perceived to enable shortcuts that limit opportunities for students to develop critical thinking and problem-solving skills. In some cases, lecturers noted that AI-generated work appeared generic and lacked depth.

Sub-themes included:

- Reduced originality and standardised responses
- Differences in AI use across academic levels

4.2.3 Theme 3: Assessment strategies that promote creativity and reduce AI reliance

The lecturers emphasised the importance of redesigning assessments to encourage authentic engagement and reduce opportunities for AI misuse. Suggested strategies included oral assessments, staged submissions, multimodal assignments, project-based learning, real-world problem-solving, and reflective tasks. These approaches were viewed as effective in promoting accountability, creativity, and deeper learning.

Sub-themes included:

- In-person and oral assessments
- Multimodal and creative assessment formats
- Contextual and problem-based learning tasks

4.3 Framework Development

Based on the integrated analysis of both student and lecturer data, a multidisciplinary student-centred assessment framework was developed (Figure 3). The framework incorporates the key themes identified in this study and provides a structured approach to designing assessments that enhance creativity while reducing uncritical reliance on AI. Each component of the framework is grounded in empirical evidence and supported by existing literature on authentic assessment, creativity, and AI-integrated learning. The framework serves as a practical guide for higher education institutions seeking to redesign assessment practices in response to the growing influence of AI.

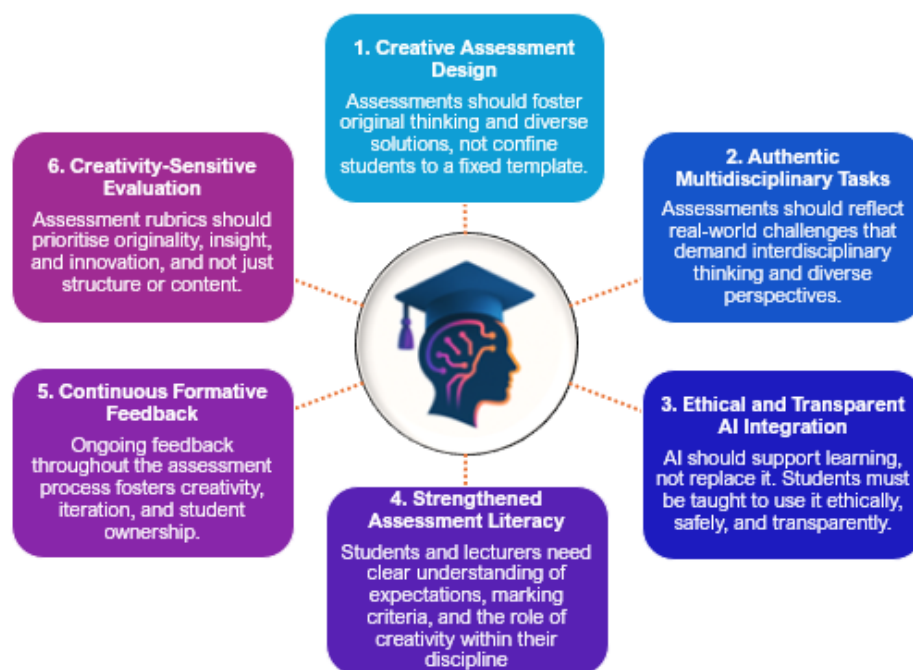


Figure 3: Multidisciplinary student-centred assessment framework
Source: Developed from the researcher's own analysis (Haripersad, 2025)

4.4 Multidisciplinary Student-Centred Assessment Framework Implementation

The multidisciplinary student-centred assessment framework developed in this study is informed by the combined insights obtained from both student and lecturer interviews. Each element of the framework directly addresses the key challenges and opportunities identified in the qualitative findings, particularly those relating to creativity, authentic learning, and the responsible use of generative AI. The sections below outline each component of the framework, explaining its purpose, its alignment with the empirical findings, and practical ways in which it can be implemented in higher education assessment design.

4.4.1 Creative assessment design

Assessment practices should be intentionally structured to encourage originality, exploration, and the generation of multiple possible solutions. Rather than requiring students to follow rigid formats or predefined answers, assessments should create opportunities for flexible thinking and innovation.

Practical application:

- Offer a range of assessment formats, such as visual projects, policy briefs, group assignments, short videos, or research reports.
- Allow students to select the format or approach that best demonstrates their understanding.
- Use open-ended questions that promote critical and divergent thinking instead of single correct answers.

4.4.2 Authentic multidisciplinary tasks

Assessments should reflect real-world challenges that require the integration of knowledge from multiple disciplines and perspectives. This approach enhances relevance and encourages students to apply their learning in complex and meaningful contexts.

Practical application:

- Use real-life cases drawn from industry, communities, or national contexts.
- Design tasks that require the application of disciplinary knowledge to solve multifaceted problems.
- Where possible, incorporate collaborative work across different academic programmes.

Such authentic tasks rely on contextual understanding, judgement, and local insight, which cannot be effectively replicated by AI.

4.4.3 Ethical and transparent AI integration

AI should be positioned as a support tool that enhances learning, rather than as a substitute for student effort. It is essential that students are guided on how to use AI responsibly and ethically within academic work.

Practical application:

- Clearly communicate acceptable and unacceptable uses of AI.
- Require students to include an AI usage declaration outlining how the tool was used.
- Teach students to critically evaluate AI-generated outputs instead of reproducing them.

Promoting transparency helps reposition AI as a learning aid and supports the development of ethical digital competencies.

4.4.4 Strengthened assessment literacy

Both students and lecturers need a clear understanding of assessment expectations, including how performance is evaluated and how creativity is defined within specific disciplines.

Practical application:

- Provide detailed marking rubrics that explicitly include criteria for creativity, originality, and critical thinking.
- Conduct assessment briefing sessions to clarify expectations.
- Share examples of high-quality work that demonstrate creative approaches.
- Offer training and support for lecturers on effective assessment design.

Improved clarity reduces uncertainty and minimises inappropriate reliance on AI due to confusion or lack of confidence.

4.4.5 Continuous formative feedback

Feedback should be integrated throughout the assessment process rather than being limited to final submissions. Continuous feedback enables students to refine their work, take intellectual risks, and develop ownership of their learning.

Practical application:

- Incorporate draft submissions, proposals, or progress checkpoints.
- Provide timely feedback through in-class discussions or online platforms.
- Encourage structured peer feedback using clear evaluation criteria.

Formative feedback supports iterative learning and reduces the tendency for students to rely on AI to produce immediate “perfect” outputs.

4.4.6 Creativity-sensitive evaluation

Assessment criteria should explicitly recognise and reward creativity, insight, and innovative thinking, rather than focusing solely on structure, language, or content accuracy.

Practical application:

- Include a specific criterion for creativity and innovation in marking rubrics.
- Acknowledge and reward unique approaches and deeper analytical reasoning.
- Allow flexibility where students demonstrate sound thinking, even if they deviate from conventional formats.

This approach encourages students to move beyond risk-averse behaviours and engage in authentic intellectual exploration, which cannot be meaningfully replicated by AI.

5. Discussion

The findings of this study reinforce and extend existing scholarship on assessment design, creativity, and the integration of AI in higher education. A key finding is that traditional assessment practices, particularly those that are text-based, standardised, and focused on final outputs, tend to limit opportunities for creative thinking. This aligns with research on authentic assessment, which emphasises that conventional approaches often prioritise knowledge reproduction over higher-order cognitive engagement (Villarroel et al., 2018). The present study supports this view by demonstrating that such assessment formats not only constrain creativity but also create conditions that make it easier for students to rely on AI-generated responses.

The study further contributes to the growing body of literature on AI in education by providing deeper insight into the drivers of AI reliance. While prior research highlights both the opportunities and risks associated with AI use in higher education (Crompton et al., 2023), this study extends that understanding by showing that students' reliance on AI is not primarily driven by laziness or intentional academic misconduct. Instead, it is strongly influenced by uncertainty in assessment expectations, lack of clarity in marking criteria, and pressure to meet perceived academic standards. This finding introduces an important shift in perspective, suggesting that AI reliance is a response to assessment design weaknesses rather than a purely behavioural issue.

In addition, the findings support existing research on assessment literacy. Boud and Dawson (2021) argued that when students and lecturers have a limited understanding of assessment criteria and expectations, it can negatively affect learning outcomes. This study confirms that low levels of assessment literacy contribute to confusion and anxiety, which in turn increases the likelihood of students using AI as a compensatory tool. By highlighting the role of clarity, guidance, and shared understanding, the study reinforces the importance of improving assessment literacy as part of broader assessment reform.

From a theoretical perspective, the findings are consistent with constructivist learning principles, which emphasise active engagement, meaning-making, and the construction of knowledge through experience (Primarni et al., 2024). Students in this study expressed a clear preference for assessments that involve real-world application, reflection, and interaction, all of which are central to constructivist

approaches. These types of assessments require contextual understanding and personal interpretation, making them less susceptible to superficial AI use. Furthermore, the results align with Bloom's revised taxonomy, which highlights the importance of higher-order cognitive skills such as analysis, evaluation, and creation (Anderson & Krathwohl, 2001). The study shows that assessments targeting these levels of thinking are more effective in promoting creativity and reducing dependency on AI.

Importantly, this study makes a novel contribution by demonstrating that AI can support creativity when it is integrated in an ethical and transparent manner in the learning process. While much of the existing literature focuses on the risks of AI undermining academic integrity, the findings of this study suggest a more balanced perspective. When students are guided on how to use AI appropriately, and when assessments are designed to emphasise process, reflection, and originality, AI can function as a tool that enhances rather than replaces learning. This shifts the conversation from restriction towards responsible integration, which has important implications for higher education policy and practice.

Overall, the findings highlight that the core issue is not the presence of AI itself, but the misalignment between assessment design and the demands of an AI-enabled learning environment. By linking empirical insights with established theoretical frameworks, this study provides a stronger foundation for rethinking assessment practices in higher education.

6. Contributions of the Study

This study makes several important contributions to theory, practice, and methodology within the field of higher education assessment in an AI-enabled environment.

6.1 Theoretical Contribution

This study extends existing literature on assessment design, creativity, and artificial intelligence by demonstrating that over-reliance on AI is not primarily a behavioural issue but rather a consequence of ineffective assessment design. While prior research has largely focused on the risks associated with AI in education, this study shifts the perspective towards understanding the structural and pedagogical factors that influence AI use. By integrating principles from constructivist learning theory, Bloom's revised taxonomy, and the componential theory of creativity, the study provides a more comprehensive theoretical lens through which assessment practices can be understood. It contributes to theory by positioning assessment design as a critical mediator between AI use, creativity, and meaningful learning.

6.2 Practical Contribution

From a practical perspective, the study introduces a multidisciplinary student-centred assessment framework that provides clear and actionable guidance for educators and institutions. The framework outlines specific strategies for designing assessments that promote creativity, reduce inappropriate AI reliance, and support ethical engagement

with digital tools. The practical value of the framework lies in its applicability across disciplines and its alignment with real-world educational challenges. It offers educators concrete approaches, such as incorporating authentic tasks, enabling student choice, embedding formative feedback, and improving assessment literacy. These strategies can be directly implemented within higher education contexts to enhance both teaching and learning outcomes.

6.3 Methodological Contribution

This study also contributes methodologically by demonstrating the value of a qualitative DSR approach in addressing complex educational challenges. By combining empirical insights from both students and lecturers with a structured framework development process, the study illustrates how qualitative data can be used to inform the design of practical solutions. The integration of thematic analysis with DSR provides a robust approach for developing contextually relevant and evidence-based frameworks. This methodological contribution is particularly relevant for future research seeking to design and evaluate interventions in higher education.

7. Conclusion

This study investigated how assessment design in higher education can promote creativity while reducing excessive reliance on generative AI. The findings indicate that traditional assessment approaches, particularly those that are text-heavy, standardised, and focused on final outputs, are not well aligned to an AI-enabled learning environment. These practices often encourage surface-level engagement and replication, making it easier for students to depend on AI rather than develop independent and creative thinking skills. Insights from both students and lecturers highlight the need for assessment reform that supports deeper learning, originality, and ethical engagement with AI.

To address this, the study developed a multidisciplinary, student-centred assessment framework that emphasises authenticity, process-oriented learning, and human judgement. The framework promotes the use of real-world and multidisciplinary tasks, oral and reflective components, and increased student choice in demonstrating learning. These approaches not only reduce inappropriate AI use but also strengthen students' creative and cognitive capabilities. The study further highlights that AI should not be viewed solely as a threat. When integrated ethically and purposefully, it can enhance learning and creativity. However, this requires intentional assessment design, improved assessment literacy, and clear institutional guidance.

Future research should focus on validating the proposed framework across different institutions and disciplines to strengthen its generalisability. Further studies may also adopt quantitative or mixed-methods approaches to measure the impact of redesigned assessments on creativity, academic performance, and AI usage over time.

8. References

- Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, 36, 157–183. <https://doi.org/10.1016/j.riob.2016.10.001>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Boud, D., & Dawson, P. (2021). What feedback literate teachers do: An empirically-derived competency framework. *Assessment & Evaluation in Higher Education*, 48(2), 158–171. <https://doi.org/10.1080/02602938.2021.1910928>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20, Article 22. <https://doi.org/10.1186/s41239-023-00392-8>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2015). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Fosnot, C. T. (2013). *Constructivism: Theory, perspectives, and practice* (2nd ed.). Teachers College Press.
- Ghomi, M., & Redecker, C. (2019). Digital competence of educators (DigCompEdu): Development and evaluation of a self-assessment instrument for teachers' digital competence [Conference session]. *11th International Conference on Computer Supported Education*, Heraklion, Crete, Greece (pp. 541–548). <https://www.scitepress.org/Link.aspx?doi=10.5220/0007679005410548>
- Gillham, B. (2005). *Research interviewing. The range of techniques*. Open University Press.
- Haripersad, M. T. (2025). *Designing assessments to foster creativity and minimise AI reliance: A multidisciplinary student-centred framework* [Unpublished master's dissertation]. University of Johannesburg.
- Khlaif, Z. N. (2024). Rethinking educational assessment in the age of artificial intelligence: Insights from recent training workshops. In Z. N. Khlaif (Ed.), *Fostering inclusive education with AI and emerging technologies* (Ch. 5). IGI Global.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1). <https://doi.org/10.1177/1609406917733847>
- Peppers, K., Tuunanen, T., Rothenberger, M. A., & Chatterjee, S. (2014). A design science research methodology for information systems research. *Journal of Management Information Systems*, 24(3), 45–77. <https://www.jstor.org/stable/40398896>
- Primarni, A., Hoxha, A., & Rzayev, R. (2024). The role of constructivism in modern educational philosophy: A comparative analysis. *International Journal of Educational Narratives*, 2(6), 546–556. <https://www.researchgate.net/publication/391134879>
- Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: Creating a blueprint for course design. *Assessment & Evaluation in Higher Education*, 43(5), 840–854. <https://doi.org/10.1080/02602938.2017.1412396>