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Reinstating traditional sit-in exams to curb overreliance on artificial intelligence

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Abstract

The growing use of Artificial Intelligence (AI) technologies in educational settings has prompted apprehensions over the decline of critical thinking, academic integrity, and authentic student involvement. Although AI provides assistance in research and writing, unthinking and excessive dependency on these technologies has resulted in shallow learning and a decline in intellectual autonomy. This paper examines the significance of reinstalling conventional sit-in exams as a remedy for the excessive reliance on AI in higher education, fostering genuine evaluation and academic integrity. A systematic review according to PRISMA guidelines was performed to guarantee a meticulous and transparent procedure of data gathering and analysis. Relevant literature was located using an extensive search across five major electronic databases such as Google Scholar, ACM Digital Library, IEEE Xplore, Scopus, and Web of Science, utilizing Boolean operators and topic-specific keywords. The review included peer-reviewed journal articles, conference proceedings, and book chapters published in English from 2018 to 2025. Inclusion and exclusion criteria were used to narrow the findings, culminating in the final selection of 252 empirical and theoretical sources for comprehensive examination. Data extraction used a standardised form, and theme synthesis was executed to discern predominant patterns and findings. The finding evaluation disclosed a prevalent and escalating apprehension about students' augmented utilisation of AI tools for academic tasks, often to the detriment of cultivating autonomous analytical and writing abilities. Conventional sit-in examinations were continuously emphasised in the literature as an effective means to assess authentic student knowledge and prevent academic misconduct. The results highlighted the insufficiency of current online and take-home evaluation methods in identifying AI-generated content. Identified themes included the influence of AI on learning behaviour, the constraints of existing digital assessments, and the resurgence of proctored in-person exams as a quality assurance measure. The integration of evidence indicates that conventional sit-in examinations are essential for maintaining academic standards. In-person examinations promote self-discipline, enhance engagement with course material, and reduce the potential for technological misconduct, unlike remote or take-home evaluations. Although AI may assist in certain facets of learning, it cannot replace the evaluative significance of conventional evaluations that measure cognitive recall, synthesis, and application. The research underscores the need for hybrid assessment frameworks that integrate AI-assisted formative instruments with summative in-person assessments to protect educational integrity. In conclusion, the systematic evaluation determines that reintroducing conventional sit-in examinations is a timely and effective measure against the over reliance on AI in academia. By emphasising academic rigour and personal responsibility, these examinations guarantee that learning results accurately represent genuine student skills. Institutions must implement equitable policies that include technological innovation while preserving the core objectives of higher education—specifically, critical thinking, academic integrity, and intellectual development.

Keywords: Artificial Intelligence; Academic Integrity; Conventional Sit-in Examinations; Authentic Assessment

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1. Introduction

The rapid incorporation of Artificial Intelligence (AI) into higher education has presented both prospects and obstacles. The prevalent and uncritical use of AI applications such as ChatGPT, Grammarly, and Quillbot among students presents significant educational issues, despite their capacity to boost productivity, refine writing, and assist in research (Raheem et al., 2023). Students are progressively dependent on AI for essay generation, assignment completion, and draughting replies to discussion topics (Tossell et al., 2024). This approach jeopardises the fundamental foundations of academic involvement, such as critical thinking, independent analysis, and intellectual diligence.

This reliance on AI is not just a technical transformation but also an educational quandary (Pedro, et al., 2019). In several classrooms, especially at the undergraduate level, educators and teaching assistants have seen a persistent deterioration in students' capacity to formulate unique arguments, absorb reading materials profoundly, or interact substantively with course content (Barrasso and Spilios, 2021). The issue is not in the use of AI itself, but in the unexamined integration that supplants genuine cognitive functions (Parker et al., 2024). Ultimately, this may diminish students' ability for analytical thought and impede the cultivation of academic independence.

Plethora of studies e.g., Dogan et al., 2023; Chen et al., 2020; Munir et al., 2022 have linked digital ease with superficial learning. Academics contend that whereas digital technologies enhance knowledge accessibility, they may also promote passive learning, whereby pupils accept machine-generated outputs without scrutiny or internalisation (Elsayed, 2024). The dependence on AI for academic work bypasses the intentional cognitive effort usually necessary to synthesise, assess, and generate knowledge (Zhai et al., 2024). As students increasingly delegate their cognitive processes, they hazard graduating with commendable transcripts but little intellectual development (Devaki, 2025).

The problem is exacerbated by the challenges of validating academic integrity in AI-assisted submissions (Eze, 2024). Educators have difficulties in differentiating authentic student effort from AI-generated content, particularly as these technologies advance in replicating human expressiveness (Stefaniia, 2024). Plagiarism detection tools often inadequately identify AI participation, complicating the evaluation of students' genuine comprehension of the topics they provide in their submissions (Ogwueleka, 2025). Consequently, course marks may no longer adequately represent a student's proficiency or learning progression.

Worldwide, higher education systems are contending with this escalating dilemma (Slimi and Carballido, 2023). Universities are exploring novel evaluation methodologies, such as oral defences, in-person examinations, and AI-detection software. However, these solutions often lack scalability, stability, or equity (Mohamad and Nazlan, 2024). The proposal to reinstate conventional sit-in, proctored examinations has therefore garnered support as a viable and prompt remedy. These examinations exclude the use of AI and internet resources, necessitating that pupils depend only on their internalised knowledge and cognitive skills.

Advocates of sit-in examinations contend that they facilitate profound learning and support academic rigour. In contrast to take-home projects, in-class examinations necessitate that students engage in continuous study throughout the term, rather than resorting to last-minute cramming or delegating tasks as deadlines approach (Cooper, 2021). The approach promotes students' comprehension of fundamental topics, enables them to foresee enquiries, and practice their replies. By engaging in this process, learners develop material mastery with time management, stress resilience, and problem-solving abilities—attributes essential for lifelong learning.

Notwithstanding the benefits, few studies e.g., Ouyang et al., 2022; Bahroun et al., 2023; Boutyour et al., 2024 have comprehensively synthesised the educational effects of conventional examinations in the era of artificial intelligence. Much of the current work focusses either on digital change within education or on the ethics of artificial intelligence. A deficiency exists in comprehending how traditional procedures, such as proctored examinations, may be successfully reinstated as measures to ensure academic integrity and genuine learning. This is especially critical due to the rapid increase in AI usage among student populations globally.

This paper carefully evaluates empirical data and theoretical perspectives about the importance of sit-in examinations in mitigating AI overreliance in undergraduate education. It examines how conventional assessments may facilitate critical engagement, precise evaluation, and educational equality. The research underscores the need for equitable policies that maintain the advantages of digital technologies while safeguarding the integrity and objectives of higher education in the 21st century.

1.1. Research Questions

- To what extent has the use of AI tools influenced undergraduate students' engagement with course materials?
- How does overreliance on AI affect the development of critical thinking and independent learning among students?
- What are the limitations of existing assessment methods in ensuring academic integrity in the AI era?
- In what ways can traditional sit-in exams serve as a strategy to mitigate the negative impacts of AI overuse in undergraduate education?

1.2. Research Objectives

- To examine the impact of AI tools on students' engagement and learning depth in undergraduate courses.
- To analyse the consequences of students' overdependence on AI for developing critical academic skills.
- To evaluate current assessment strategies and their effectiveness in detecting AI-assisted academic dishonesty.
- To explore the role of traditional sit-in exams in promoting authentic assessment and academic discipline.

2. Literature Review

2.1. Understanding Traditional Sit-In Exams

Conventional sit-in examinations have historically served as a fundamental component of academic evaluation in higher education, aimed at assessing a student's capacity to remember, synthesise, and apply information in a regulated setting. These assessments are often administered in-person and under supervision, with stringent time constraints and prohibitions on external resources such as textbooks, the internet, or technology devices like AI (Stanoyevitch, 2024). Their main objective is to provide a standardised and genuine assessment of a student's cognitive and analytical skills, guaranteeing that the submitted work demonstrates own comprehension rather than external aid (Dawson et al., 2024).

The primary advantage of conventional sit-in examinations is their capacity to evaluate immediate cognitive processing and memory recall (Dawson et al., 2024). In contrast to take-home projects or digital quizzes that provide prolonged access to materials, in-person examinations necessitate that students internalise essential topics throughout the course of the semester (Kaisar, 2023). This promotes regular study practices, engaged classroom involvement, and enduring knowledge retention. It also compels pupils to critically interact with the content and prepare meticulously to excel under pressure.

Regarding academic integrity, sit-in examinations provide a distinct advantage. As students are supervised and restricted from using digital devices, the potential for cheating or outsourcing their assignments to AI technologies is markedly reduced (Dawson, 2020). This creates a more equitable environment, as performance is assessed based on personal endeavour and understanding (Ossai et al., 2023). It offers teachers a more dependable measure of students' genuine learning and advancement, therefore enhancing the validity of evaluation results.

Furthermore, the format of conventional examinations cultivates competencies that are vital beyond the educational sphere (Xia et al., 2024). The capacity to think effectively under time pressure, organise ideas rationally, and explain arguments in writing are essential skills in professional and real-world contexts (Rahimi and Oh, 2024). These examinations also assist students in developing resilience, discipline, and personal accountability—attributes that automated or excessively digitised systems may fail to nurture successfully.

Notwithstanding these benefits, conventional sit-in examinations have encountered criticism in recent years, particularly regarding inclusive education and varied learning styles. Critics contend that high-pressure conditions may penalise pupils with exam anxiety or those who excel in open-ended, introspective tasks (Chan, 2023). Furthermore, practical obstacles like scheduling, supervision, and spatial constraints have compelled institutions to increasingly depend on alternate evaluation forms, especially during and after the COVID-19 epidemic (Cooper, 2021).

Nonetheless, in an age when AI is transforming academic processes, there is a revived interest in the function of sit-in examinations. Reintegrating them as a fundamental component of evaluation might serve as a countermeasure to the excessive reliance on AI technologies, so aiding in the restoration of academic rigour and authenticity. When supplemented with other types of ongoing assessment and inclusive support systems, conventional examinations may function not just as an evaluation of knowledge but also as a means to uphold the instructional purpose of higher learning institutions.

2.2. Student Reliance on AI in Examinations

The dependence of students on Artificial Intelligence (AI) for academic tasks—especially in examinations and assignments—has markedly increased due to the advent of robust generating tools such as ChatGPT, Grammarly, and paraphrase software (Anis and Khalid, 2024). Although these tools provide significant assistance for research, editing, and brainstorming, their uncontrolled use in educational environments has elicited urgent concerns over academic integrity, authentic learning, and the decline of autonomous thought (Raheem et al., 2023). In several graduate courses, students increasingly rely on AI not just for elucidating concepts but also for producing complete replies, so undermining the educational merit of the evaluations.

This dependence is mostly motivated by convenience and performance demands (Meroua and Noudjoud, 2024). Nwozor (2025), posited that confronted with stringent deadlines, intricate subject matter, and the aspiration for elevated ratings, some students use AI technologies to compose essays, resolve difficulties, or even generate test responses for take-home or open-book evaluations. These technologies may promptly provide organised, linguistically accurate solutions that often evade plagiarism detection, making them attractive expedients (Kofinas et al., 2025). Consequently, students could allocate less time to thoroughly interacting with course material and more time to copying, pasting, or minimally modifying AI-generated responses.

A further contributing aspect is the heightened usage of remote and take-home examination formats, particularly in the post-pandemic educational environment (Pilotti et al., 2023). These evaluation techniques often lack rigorous oversight, facilitating undetected use of AI technologies by students. Despite the implementation of honour codes and academic rules by institutions to deter this behaviour, enforcement continues to pose difficulties. The nuance of AI's assistance to students—while avoiding blatant plagiarism—complicates the identification of academic dishonesty (Mulenga and Shilongo, 2024).

The drawbacks of this excessive dependence are significant. When students circumvent the cognitive processes necessary for autonomous analysis, interpretation, and argument construction, they forfeit vital chances to develop critical thinking and problem-solving abilities. These are the specific abilities that higher education seeks to cultivate (George, 2023). Moreover, students who consistently rely on AI for evaluations may have difficulties in real-world situations that need rapid decision-making, inventiveness, and effective communication without digital assistance (Chasokela and Hlongwane, 2025).

This problem also has an ethical component. Academic degrees are intended to signify personal diligence, proficiency in the topic, and preparedness for professional endeavours. AI-assisted response inflation of grades engenders a deceptive perception of competence, so compromising the integrity of the academic system (Ganiyu, 2025 and Eze, 2024). This undermines the value of degrees and creates inequitable advantages among students, particularly between those who use AI extensively and those who do not.

Mitigating student dependence on AI during examinations necessitates a measured strategy. Instead of imposing a total prohibition on AI tools, educators should create tests that prioritise in-person evaluation, oral defence, critical analysis, and problem-based learning—formats that are less susceptible to AI support. Furthermore, emphasising the significance of academic integrity, instructing on appropriate AI use, and fostering a culture of intellectual curiosity might assist in realigning students' objectives. Ultimately, mitigating reliance on AI in examinations is not an opposition to technology advancement but a preservation of the fundamental principles of education.

3. Theoretical Framework

The study is underpinned by the Constructivist Learning Theory and Self-determination Theory.

3.1. Constructivist Learning Theory

The Constructivist Learning Theory asserts students actively create their own comprehension and knowledge of the world via experiences and reflection. Students actively interpret and internalise knowledge based on their past experiences and environmental interactions, rather than passively accepting information (Almulla, 2023). This approach, mostly shaped by the contributions of Piaget and Vygotsky, emphasises the need of involving learners in substantive tasks that necessitate critical thinking, investigation, and problem-solving (Nurhuda, et al., 2023). In educational settings, constructivism advocates for pedagogical methods that foster student-centered learning, collaboration, and practical application, whereby the learner actively engages in producing knowledge rather than depending only on external resources such as AI (Guo et al., 2024).

This research, which aims to reinstate conventional sit-in examinations to mitigate overreliance on AI, is aptly examined via the perspective of Constructivist Learning Theory. AI-generated material may provide quick responses but often neglects the fundamental cognitive mechanisms vital for profound learning. Excessive dependence on AI tools by students may lead to their transformation into passive receivers of information, so compromising the active knowledge building promoted by constructivism. In contrast, traditional sit-in examinations necessitate that learners internalise material, independently retrieve it, and apply it in unexpected contexts—all fundamental elements of constructivist learning. By prioritising in-person evaluations that examine critical thinking, synthesis, and memory, educators may restore a learning environment where knowledge is authentically built rather than artificially produced.

3.2. Self-determination Theory

Self-Determination Theory (SDT), created by Deci and Ryan, is a psychological paradigm that elucidates human motivation via three fundamental needs: autonomy, competence, and relatedness (Zhao et al., 2023). This theory posits that people are most driven and engaged when they see autonomy in their activities, possess a belief in their capacity to succeed, and cultivate meaningful relationships with others (Wang et al., 2024). In educational contexts, Self-Determination Theory emphasises the significance of intrinsic motivation, whereby students participate in learning due to personal fulfilment rather than external incentives or the evasion of consequences (Daley, 2025). Learning settings that fulfil these psychological demands often promote enhanced engagement, creativity, and enduring academic achievement.

In the context of this research, the excessive dependence on AI in academic endeavours may indicate a decline in students' intrinsic motivation, as per Self-Determination Theory (SDT). Numerous students may resort to AI technologies for assignment completion not from genuine curiosity or a quest for mastery, but rather owing to performance pressure, lack of self-assurance, or disconnection from course material. This diminishes the development of autonomy and competence—essential elements of self-directed learning. Reintroducing conventional sit-in examinations may redefine assessment as a personal challenge and a development opportunity, motivating students to take responsibility for their learning. By fostering genuine participation and responsibility, such evaluations may enhance intrinsic motivation, therefore conforming to the tenets of Self-Determination Theory.

4. Materials and Methods

This study used a PRISMA-compliant systematic review approach to guarantee a methodical, thorough, and open data collecting and analysis procedure. To improve its credibility and replicability, the review followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria. Four main steps in the systematic review approach were identification, screening, eligibility evaluation, and final inclusion of pertinent papers. The main goal of the study was to provide a thorough summary of the present literature on the return of conventional sit-in tests to counter the increasing dependence on artificial intelligence in academic environments.

Relevant material was found by means of a wide search across many electronic databases including Google Scholar, ACM Digital Library, IEEE Xplore, Scopus, and Web of Science. To maximise the acquisition of relevant papers, the search approach used both subject-specific keywords and Boolean operators. "AI and academic writing," "AI and academic examination," "integration of academic writing and AI," "AI in academics," "Artificial Intelligence," and "curbing AI use in examination" were among the leading search phrases. Strategically chosen, these terms would cover a broad spectrum of scholarly publications related to the junction of artificial intelligence and academic evaluations.

The review's inclusion criteria guaranteed that only relevant, high-quality sources were evaluated. The study included (1) peer-reviewed journal articles, conference proceedings, and book chapters; (2) publications written in English; and (3) research published between 2018 and 2025 to encompass the most recent developments and discoveries connected to AI's influence on academic research. Exclusion criteria were set to preserve the relevance and quality of the review. Articles were rejected if they (1) were opinion-based, editorials, or comments, or (2) emphasised machine-assisted literature reviews. These exclusion criteria guaranteed the inclusion of sources with significant empirical or theoretical contributions and helped to hone the selection process.

The first search found over 1,637 possibly relevant documents. Out of the 1,637 items eliminating duplicates, 784 were kept for further assessment. Titles and abstracts were then thoroughly examined by two independent reviewers, who excluded 362 publications either irrelevant to the study's emphasis or failing the inclusion requirements. A second round of full-text screening further limited the list, rejecting an additional 239 publications that lacked adequate data or did not address essential parts of the study goals. The final systematic study ultimately comprised 252 sources, which

offered a strong basis for investigating the return of conventional sit-in examinations as a way to reduce overreliance on artificial intelligence in academic evaluations.

The data extraction and synthesis techniques were done methodically and with great attention to detail to guarantee methodological rigour. important information from each research—such as study design, important results, methodology utilised, and publishing details—was captured using a standardised extraction form. The extraction was done by independent reviewers who cross-checked their work to guarantee correctness and consistency. The synthesis stage consisted of topic analysis, result categorisation, and pattern recognition to provide significant insights. Common themes—such as AI use in academic evaluations and the function of conventional exams—guided grouping of studies. A quality control check was done by a third reviewer to confirm the dependability of the results by means of discrepancy resolution. Sensitivity analysis was also done to evaluate the strength of the findings, so guaranteeing that the conclusions were based on a thorough and impartial examination of the literature. The legitimacy, openness, and repeatability of the study were enhanced by this methodical approach.

5. Findings

5.1. Impact of AI Tools on Students' Engagement and Learning Depth in Undergraduate Courses

Undergraduate students' interaction with course content has been greatly shaped by the increasing integration of artificial intelligence tools into academic environments. Students frequently use these tools—including ChatGPT, Grammarly, and other generative artificial intelligence platforms—to support research, writing, editing, and even problem-solving (Gasaymeh et al., 2024). Although they can be strong learning tools providing quick answers and simplification of difficult ideas, their excessive use has caused a kind of disengagement from the basic processes of education (Aljuaid, 2024). Relying on artificial intelligence to provide polished answers, students often skip necessary processes like reading, critical thinking, and reflection. Consequently, the level of interaction with original course material is often lessened (Amina, 2024).

The decrease in time spent studying course contents is among the most obvious consequences of artificial intelligence tool use. Students are increasingly entering prompts into artificial intelligence systems to produce summaries or direct responses rather than carefully reading textbooks, lecture notes, or scholarly publications (Alqahtani, et al., 2023). This approach changes the learning process from active involvement—where students build meaning by investigation and synthesis—to passive consumption of AI-generated material. Especially in high-stakes testing situations like examinations or oral defences, the result is a shallow grasp of important ideas and a compromised capacity to remember or use information on their own.

Moreover, using artificial intelligence might reduce students' motivation to engage meaningfully with classroom activities (Huang et al., 2023). Hooda et al. (2022) noted that some students lose interest in class, peer cooperation, or teacher feedback when assignments and debates may be substituted or enhanced by artificial intelligence contributions. This decline in social and intellectual interaction compromises the cooperative aspect of learning, which is fundamental for acquiring communication skills, critical thinking, and an academic community sense (McLaren et al., 2018). It also robs children of the chance to learn by trial and error, a fundamental component of cognitive growth.

AI tools are not naturally bad when used correctly on the other hand, they may increase involvement by enabling students to clarify questions, create study tools, and practise language skills (AbuSahyon et al., 2023). Koraishi and Karatepe (2025), argued that AI-generated summaries or explanations, for instance, might help second language learners or people with learning challenges. The important question, then, is how students utilise these tools—whether they are replacements letting them skip interaction with the subject or supplemental aids to enhance knowledge. Sadly, many students today use artificial intelligence for the latter goal, so reducing its instructional value.

This change in learning behaviour also affects assessment criteria and academic integrity (Amrane-Cooper et al., 2021). As students depend on AI to complete assignments, it becomes increasingly difficult for teachers to measure true understanding and individual learning progress (Chen et al., 2020). Assignments lose their diagnostic usefulness when the submitted work represents the output of an algorithm rather than the cognitive effort of the learner. This can, in turn, cause mismatched assessments, higher marks, and a false feeling of mastery that might not carry over into professional competency after graduation (Eze, 2024).

Ultimately, while artificial intelligence technologies might help learning, their improper application is drastically changing how undergraduates interact with academic material. Educational institutions must urgently support ethical artificial intelligence use, inspire more involvement with course content, and provide evaluation methods—such as

conventional sit-in tests—that honour genuine involvement and intellectual work. In an AI-driven academic environment, maintaining the quality and integrity of higher education depends on finding this equilibrium.

5.2. The Consequences of Students' Overdependence on AI for Developing Critical Academic Skills

Students' overreliance on artificial intelligence (AI) technologies for academic work has grave effects on the development of important academic abilities, especially in fields like autonomous thinking, problem-solving, analytical reasoning, and efficient communication (Zhai et al., 2024). Students who routinely depend on artificial intelligence to produce ideas, organise arguments, or finish tasks lose the chance to participate in the demanding mental processes required for intellectual development (Szmyd and Mitera, 2024). Rather than struggling with challenging ideas or learning from errors, they use a shortcut approach that compromises their cognitive resilience and capacity to negotiate challenging academic work alone.

Among the most impacted fields is critical thinking. While artificial intelligence systems may generate consistent and grammatically correct material, they fall short of the nuanced thinking, inventiveness, and context-specific knowledge that real critical thinking calls for (Aberšek et al., 2023). Students who over-rely on artificial intelligence could start to take information at face value, without considering its validity, biases, or relevance. Eventually, this reduces their capacity to assess sources, combine many points of view, or create logical arguments—qualities not just in academics but also in professional and civic life (Zhai et al., 2024).

Overuse of artificial intelligence also impairs problem-solving abilities. Solving problems calls for tenacity, imagination, and the capacity to adapt acquired knowledge to new contexts. Students who rely on artificial intelligence to solve problems lose the opportunity to fight through obstacles, test ideas, and hone their knowledge by trial and error (Pedro et al., 2019). This may lead to a shallow understanding of problem-solving techniques and a lack of confidence in addressing practical problems without technology support.

Research abilities are also harmed. Traditional research is the process of developing questions, doing comprehensive literature studies, analysing evidence, and making educated conclusions. While technology may provide quick answers and summaries, artificial intelligence does not help students develop research topics, evaluate results, or grasp methodological rigour (Dawson et al., 2024). Students could thus turn in well-written articles without really participating in the research process, therefore compromising their academic authenticity and intellectual growth.

Equally impacted are writing and communication skills (Kaiser, 2023). Good writing is more than just putting words together; it shows logical organisation, audience awareness, clear thinking, and convincing reasoning. Students who let artificial intelligence systems handle their writing assignments could not find their own voice or know how to clearly and precisely convey complicated topics. In academic, professional, and personal settings, this reliance undermines their capacity to speak clearly.

Over time, the effects go outside higher education. Graduates without well-developed critical academic abilities may find it difficult to adjust, solve difficulties, or think independently in dynamic professional settings (Chen et al., 2020). Employers want people who can read data, clearly express ideas, and wise decisions—qualities based on the important academic skills developed throughout higher education. Thus, reducing overreliance on artificial intelligence is not just an intellectual issue but also a social one.

All things considered, excessive dependence on artificial intelligence technologies by students might seriously undermine important academic abilities that are essential for personal growth, academic achievement, and career success. To guarantee that students are not just consumers of artificial intelligence but also critical, competent, and autonomous thinkers, educational institutions have to acknowledge this danger and respond proactively by encouraging in-person tests, building digital literacy, and include critical thinking activities.

5.3. Evaluation of Current Assessment Strategies and their Effectiveness in Detecting AI-Assisted Academic Dishonesty

Predominantly, modern higher education assessment methods consist of take-home projects, online quizzes, term papers, project-based assessments, and sometimes open-book tests. Although these methods seek to encourage flexibility, creativity, and applied learning, they have grown more susceptible to AI-assisted academic dishonesty. Sophisticated generative artificial intelligence technologies like ChatGPT have made it possible for students to produce well-organised articles, solve mathematical problems, and even mimic citations with little effort (Veniaminovich, 2023). Sadly, many of the present evaluation methods lack the tools to properly separate human-generated work from AI-assisted results.

One significant flaw of present evaluation methods is their great dependence on textual submissions without regulated settings. Many tests are done online or uploaded digitally, thus students may employ artificial intelligence secretly under no direct control (Chen et al., 2020). Teachers usually struggle to spot AI-generated work unless the result is obviously generic or at odds with the student's previous achievement. Even plagiarism detection tools like Turnitin, Grammarly, or SafeAssign are restricted in their capacity to identify AI-generated writing as such material is usually unique and not linked to current published sources (Chaka, 2024). Though several recent technologies profess to identify artificial intelligence use, their dependability and accuracy are still changing and sometimes contested.

The absence of strong benchmarking of student writing patterns and skills over time poses yet another difficulty. Establishing a distinct academic fingerprint for every student becomes challenging without consistent in-class writing activities or oral defences. AI-generated work may easily pass as legitimate when teachers lack knowledge of a student's cognitive process, linguistic ability, or analytical depth (Ogwueleka, 2025). Dishonest academic methods might thus escape detection and the actual learning progress of pupils stays unknown.

Furthermore, group-based evaluations and project submissions are susceptible to comparable manipulation. In collaborative situations, it becomes tougher to identify individual efforts, and students might jointly choose to employ AI to create substantial chunks of their reports. This weakens responsibility and makes finding academic fraud even more difficult (Ogwueleka, 2025). Though such strategies are not infallible, particularly given the culture of AI dependency, some universities try to offset this by adding reflection logs or peer evaluations.

By contrast, assessment methods that include live or real-time evaluation—such as sit-in examinations, oral presentations, in-class debates, or timed essay writing—provide a greater barrier against AI exploitation (Chen et al., 2020). These methods provide a regulated setting where students have to show autonomous thought and spontaneous reasoning (Dawson et al., 2024). They let teachers see not just the end result but also the process and depth of a student's knowledge. Such techniques, however, are labour-intensive, less scalable, and sometimes seen as backward in digital learning environments.

All things considered, while present evaluation methods encourage accessibility and flexible learning, they are growingly insufficient in controlling or spotting academic fraud aided by artificial intelligence. Institutions have to change their assessment designs to incorporate more real-time, interactive, and formative tests that foster creativity and responsibility in order to close this gap. Any technical remedies should be accompanied with faculty training, digital literacy instruction, and ethical awareness initiatives to foster a culture of integrity in the AI age.

5.4. The Role of Traditional Sit-In Exams in Promoting Authentic Assessment and Academic Discipline

In higher education, conventional sit-in tests are essential for fostering genuine evaluation and academic discipline. Sitin examinations, which are regulated, proctored tests held in physical classrooms, establish an atmosphere where students must show their knowledge, comprehension, and critical thinking skills without the use of outside resources such AI, internet tools, or peer support. This framework offers a consistent gauge of individual student performance, hence enabling teachers to evaluate how effectively students have internalised and can apply the course material independently (Ouyang et al., 2022). Sit-in tests encourage authenticity in academic assessments as they restrict chances for dishonesty and technology tampering, hence guaranteeing that marks really represent real learning results rather than technological shortcuts.

Furthermore, by demanding students to participate in regular study practices, time management, and knowledge retention over a prolonged period, conventional tests foster academic discipline; (Bahroun et al., 2023). The prospect of an in-person test motivates students to methodically study, go to courses, take notes, and often go over resources (Boutyour et al., 2024). Important for developing knowledge in any academic domain, this rigorous method to learning promotes more cognitive involvement and strengthens long-term memory. The strain of remembering material under timed settings also enhances students' problem-solving abilities, mental agility, and resilience—qualities that are useful beyond the classroom.

Sit-in tests call for more personal responsibility and less reliance on assistive devices than take-home or online tests. Students must express ideas, solve issues, or examine case studies using their own intellectual power rather than produced answers (Ouyang et al., 2022). This not only reduces academic dishonesty but also fosters self-assurance in one's abilities. Furthermore, because teachers see the whole process from input to submission, they can more accurately confirm the integrity of the student's work, thereby strengthening the evaluation.

All things considered, conventional sit-in tests help to protect academic integrity by strengthening fundamental learning habits. These tests help to fulfil the fundamental goal of education by guaranteeing that students are judged on their own knowledge and effort, hence producing knowledgeable, capable, and self-reliant people. Reintegrating or enhancing conventional testing approaches provides a significant option to maintain academic standards and promote real student growth while institutions struggle with the difficulties of AI-enabled academic fraud.

6. Conclusion

The systematic research shows a rising worry in higher education about students' overreliance on AI-driven technologies for assignments and academic activities. Although these technologies provide great advantages in terms of information access, language production, and writing help, unthinking use of them compromises fundamental academic ideals like critical thinking, autonomous learning, originality, and intellectual integrity. Though applied correctly, AI technologies may enhance the learning process by helping with idea development and research organisation; they are not naturally harmful. The problem, however, is when students submit AI-generated work as their own, so compromising the genuineness of academic involvement and learning results and skipping the learning process completely. Additionally, studies from the examined literature backs up the idea that conventional sit-in testsheld in a proctored, controlled setting and devoid of technology support—are crucial in reducing this rising tendency. These tests push students to prepare well, think independently, and under pressure recall and apply information. This not only inhibits academic dishonesty but also enhances necessary cognitive abilities like knowledge retention, problem-solving, logical thinking, and writing articulation. Furthermore, by guaranteeing that success is linked to real effort, continuous involvement, and mastery of the course material, conventional tests promote personal responsibility and support academic discipline. The results also underline the shortcomings of present evaluation methods in spotting or stopping academic dishonesty supported by artificial intelligence. Though creative and adaptable, take-home assignments, online tests, and even project-based learning are becoming more susceptible to technological abuse. Sitin tests, which evaluate students' unassisted intellectual ability, give a more rigorous and genuine estimate of their talents and learning progress in comparison. These tests closely correspond to the basic objectives of higher education: to develop autonomous, knowledgeable, and reflective students ready for practical obstacles. Ultimately, even if artificial intelligence will always be a useful component of the academic scene, teachers and universities must use fair policies that support academic honesty and promote more in-depth study. One such approach is to reinstate or improve conventional in-person tests, which simultaneously corrects overreliance on artificial intelligence and reaffirms the need of real intellectual work. A hybrid strategy combining the accessibility of digital tools with the rigour of conventional assessment techniques may be the most efficient way to maintain academic achievement in the artificial intelligence age going ahead.

The results of the systematic review support the following recommendations meant to strengthen academic integrity and reformulate assessment systems in light of growing artificial intelligence use in educational environments.

- **Reintroduce and Give In-Person Exams Top Priority**: To guarantee the dependability and genuineness of assessments, universities should rethink the use of in-person, proctored tests, especially for fundamental subjects. Reintroducing these conventional approaches might help to offset the increasing dependence on AI-driven activities. In-person tests may be especially beneficial for evaluating students' instant problem-solving skills, knowledge application under time constraints, and retention of acquired content. Institutions may guarantee a more complete and correct assessment of students' learning results by increasing the weight of these tests in grading policies.
- **Create Equitable Assessment Models**: Higher education institutions should use a mixed approach to assessment, combining AI-assisted projects with more conventional modes of evaluation. This mix would preserve a solid basis in conventional approaches including sit-in tests, quizzes, and in-class presentations while yet allowing for the efficient use of technology in the learning process. AI technologies for content production or analysis might help research papers and assignments, but the final assessment should stress critical thinking, creativity, and the students' capacity to use acquired knowledge in real environments. This balanced strategy would protect academic integrity and guarantee that students are cognitively involved in the learning process while using the advantages of artificial intelligence, including efficiency and access to great resources.
- Enhance Policies on Academic Integrity: To handle new issues brought on by the use of artificial intelligence technologies in academic work, institutions should conduct a thorough examination of their academic integrity rules. This study should define what is appropriate usage of artificial intelligence, so guaranteeing that faculty members and students are fully aware of the ethical limits connected to its use. Developing clear rules would help to differentiate between AI-assisted research and content development on the one hand and plagiarism or illegal help on the other. To assist implement these regulations, institutions should also think about including

plagiarism detection tools able to find AI-generated material. Regular revisions of these regulations would guarantee their continued relevance in an always changing technology environment.

- Encourage Critical and Metacognitive Thinking Abilities: Universities should rethink their courses to include activities calling for great degrees of metacognitive ability and critical thinking in order to offset the possible over-reliance on AI-generated results. Reflecting, analysing, synthesising, and problem-solving—cognitive skills more difficult for artificial intelligence to duplicate—should be the emphasis of these assignments. Educational institutions may guarantee that students are ready for genuine intellectual involvement by include activities demanding deep student involvement with material—such as debates, case studies, group projects, and hands-on practical applications. These abilities will not only help students to rely less on artificial intelligence but also help them to be better ready for real-world difficulties where human judgement and insight are absolutely vital.
- **Organise Faculty and Student Workshops:** To increase awareness of the ethical use of artificial intelligence technologies and underline the need of maintaining independent thought in academic work, universities should plan consistent seminars and training courses for both faculty members and students. These seminars might address issues like responsible inclusion of artificial intelligence into assignments and research as well as techniques for spotting and correcting unethical artificial intelligence use. Teaching students the ethical consequences of artificial intelligence will enable them to decide when and how to utilise AI in their academic work. Training for faculty should emphasise how to evaluate AI-assisted work and how to maintain academic rigour in the digital transformation setting.
- **Promote More Study**: Future studies should investigate many aspects of how artificial intelligence affects education, including hybrid assessment models combining conventional and AI-assisted evaluation approaches. Longitudinal research are required to investigate the long-term consequences of AI dependence on student learning results, involvement, and cognitive development. Given the varying dependence on artificial intelligence in subjects like literature, engineering, and social sciences, it is crucial to investigate how various disciplines are impacted by AI technologies. Knowing these disciplinary subtleties can help one to see more clearly how artificial intelligence may be best used into various educational settings while maintaining academic standards.

References

- [1] Aberšek, B., Flogie, A. and Pesek, I., 2023. AI and Cognitive Modelling for Education. Springer Nature Switzerland AG. Accessed fom https://link.springer.com/content/pdf/10.1007/978-3-031-35331-4.pdf
- [2] AbuSahyon, A.S.A.E., Alzyoud, A., Alshorman, O. and Al-Absi, B., 2023. AI-driven technology and Chatbots as tools for enhancing English language learning in the context of second language acquisition: a review study. International Journal of Membrane Science and Technology, 10(1), pp.1209-1223. Accessed from https://www.researchgate.net/profile/Alia-Abusahyon/publication/375011638
- [3] Alqahtani, T., Badreldin, H.A., Alrashed, M., Alshaya, A.I., Alghamdi, S.S., Bin Saleh, K., Alowais, S.A., Alshaya, O.A., Rahman, I., Al Yami, M.S. and Albekairy, A.M., 2023. The emergent role of artificial intelligence, natural learning processing, and large language models in higher education and research. Research in social and administrative pharmacy, 19(8), pp.1236-1242. Accessed from https://www.sciencedirect.com/science/article/pii/S1551741123002802
- [4] Aljuaid, H., 2024. The impact of artificial intelligence tools on academic writing instruction in higher education: A systematic review. Arab World English Journal (AWEJ) Special Issue on ChatGPT. Accessed from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4814342
- [5] Almulla, M.A., 2023. Constructivism learning theory: A paradigm for students' critical thinking, creativity, and problem solving to affect academic performance in higher education. Cogent Education, 10(1), p.2172929. Accessed from https://www.tandfonline.com/doi/abs/10.1080/2331186X.2023.2172929
- [6] Amina, F., 2024. Exploring EFL Students 'Perceptions on the use of Grammarly as an AI Writing Tool to Enhance Academic Writing Proficiency the Case Study of Master Two English Students at Mohammed Kheider University. Accessed from http://archives.univ-biskra.dz/bitstream/123456789/29013/1/amina_ferchichi.pdf
- [7] Amrane-Cooper, L., Hatzipanagos, S. and Tait, A., 2021. Developing student behaviours that support academic integrity in distance learning. Open Praxis, 13(4), pp.378-384. Accessed from https://search.informit.org/doi/abs/10.3316/informit.485457765597461

- [8] Anis, N. and Khalid, B., 2024. Teachers' and Students' Perception about the Effects of Using ChatGPT, Grammarly, and Quillbot on Students' Writing Skills (Doctoral dissertation, university center of abdalhafid boussouf-MILA). Accessed from http://dspace.centre-univ-mila.dz/jspui/handle/123456789/3481
- [9] Bahroun, Z., Anane, C., Ahmed, V. and Zacca, A., 2023. Transforming education: A comprehensive review of generative artificial intelligence in educational settings through bibliometric and content analysis. Sustainability, 15(17), p.12983. Accessed from https://www.mdpi.com/2071-1050/15/17/12983
- [10] Barrasso, A.P. and Spilios, K.E., 2021. A scoping review of literature assessing the impact of the learning assistant model. International Journal of STEM Education, 8, pp.1-18. Accessed from https://link.springer.com/article/10.1186/s40594-020-00267-8
- [11] Boutyour, Y., Idrissi, A. and Uden, L., 2024. Artificial Intelligence and Assessment Generators in Education: A Comprehensive Review. Modern Artificial Intelligence and Data Science 2024: Tools, Techniques and Systems, pp.265-284. Accessed from https://link.springer.com/chapter/10.1007/978-3-031-65038-3_21
- [12] Chaka, C., 2024. Reviewing the performance of AI detection tools in differentiating between AI-generated and human-written texts: A literature and integrative hybrid review. Journal of Applied Learning and Teaching, 7(1), pp.115-126. Accessed from https://www.researchgate.net/profile/Chaka-Chaka/publication/379235978
- [13] Chan, C.K.Y., 2023. A systematic review-handwritten examinations are becoming outdated, is it time to change to typed examinations in our assessment policy?. Assessment & Evaluation in Higher Education, 48(8), pp.1385-1401. Accessed from https://www.tandfonline.com/doi/abs/10.1080/02602938.2023.2219422
- [14] Chasokela, D. and Hlongwane, J., 2025. Assessing Higher-Order and Critical Skills in the Era of Artificial Intelligence. In Educational Assessments in the Age of Generative AI (pp. 285-314). IGI Global Scientific Publishing. Accessed from https://www.igi-global.com/chapter/assessing-higher-order-and-critical-skills-inthe-era-of-artificial-intelligence/366797
- [15] Chen, L., Chen, P. and Lin, Z., 2020. Artificial intelligence in education: A review. Ieee Access, 8, pp.75264-75278. Accessed from https://ieeexplore.ieee.org/abstract/document/9069875/
- [16] Cooper, K.L., 2021. How North Carolina Community College faculty transitioned from traditional course delivery to online course delivery using emergency remote teaching during the COVID-19 pandemic: An exploratory case study. North Carolina State University. Accessed from https://search.proquest.com/openview/d06dad47689b80d771408b2a19494f44/1?pqorigsite=gscholar&cbl=18750&diss=y
- [17] Daley, S.G., 2025. Universal design of educational psychology? Improving theory and application by focusing on students with disabilities. Educational Psychologist, pp.1-13. Accessed from https://www.tandfonline.com/doi/abs/10.1080/00461520.2024.2441661
- [18] Devaki, V., 2025. Academic Integrity and Human Cognitive Development of Learners: Is Artificial Intelligence Replacing the Human Brain?. In AI Applications and Strategies in Teacher Education (pp. 195-222). IGI Global. Accessed from https://www.igi-global.com/chapter/academic-integrity-and-human-cognitive-development-oflearners/358898
- [19] Dogan, M.E., Goru Dogan, T. and Bozkurt, A., 2023. The use of artificial intelligence (AI) in online learning and distance education processes: A systematic review of empirical studies. Applied sciences, 13(5), p.3056. Accessed from https://www.mdpi.com/2076-3417/13/5/3056
- [20] Dawson, P., 2020. Defending assessment security in a digital world: Preventing e-cheating and supporting academic integrity in higher education. Routledge. Accessed from https://www.taylorfrancis.com/books/mono/10.4324/9780429324178/defending-assessment-securitydigital-world-phillip-dawson
- [21] Dawson, P., Nicola-Richmond, K. and Partridge, H., 2024. Beyond open book versus closed book: a taxonomy of restrictions in online examinations. Assessment & Evaluation in Higher Education, 49(2), pp.262-274. Accessed from https://www.tandfonline.com/doi/abs/10.1080/02602938.2023.2209298
- [22] Elsayed, H., 2024. The Impact of Hallucinated Information in Large Language Models on Student Learning Outcomes: A Critical Examination of Misinformation Risks in AI-Assisted Education. Northern Reviews on Algorithmic Research, Theoretical Computation, and Complexity, 9(8), pp.11-23. Accessed from https://northernreviews.com/index.php/NRATCC/article/view/2024-08-07

- [23] Eze, C.A., 2024. The role of educators in upholding academic integrity in an ai-driven era. AI and ethics, academic integrity and the future of quality assurance in higher education. Accessed from https://www.researchgate.net/profile/Mamman-Muazu-2/publication/384969429_AI
- [24] Ganiyu, T.O., 2025. Academic integrity in the AI era: Battling cheating with innovation. AI and Ethics, Academic Integrity and the Future of Quality Assurance in Higher Education. Accessed from https://www.researchgate.net/profile/Mamman-Muazu-2/publication/384969429_
- [25] Gasaymeh, A.M.M., Beirat, M.A. and Abu Qbeita, A.A.A., 2024. University Students' Insights of Generative Artificial Intelligence (AI) Writing Tools. Education Sciences, 14(10), p.1062. Accessed from https://www.mdpi.com/2227-7102/14/10/1062
- [26] George, A.S., 2023. Preparing students for an AI-driven world: Rethinking curriculum and pedagogy in the age of artificial intelligence. Partners Universal Innovative Research Publication, 1(2), pp.112-136. Accessed from https://puirp.com/index.php/research/article/view/22
- [27] Guo, H., Yi, W. and Liu, K., 2024. Enhancing constructivist learning: The role of generative AI in personalised learning experiences. In Proceedings of the 26th International Conference on Enterprise Information Systems (ICEIS 2024) (Vol. 1, pp. 767-770). Accessed from https://www.scitepress.org/Papers/2024/126887/126887.pdf
- [28] Hooda, M., Rana, C., Dahiya, O., Rizwan, A. and Hossain, M.S., 2022. Artificial intelligence for assessment and feedback to enhance student success in higher education. Mathematical Problems in Engineering, 2022(1), p.5215722. Accessed from https://onlinelibrary.wiley.com/doi/abs/10.1155/2022/5215722
- [29] Huang, A.Y., Lu, O.H. and Yang, S.J., 2023. Effects of artificial Intelligence–Enabled personalized recommendations on learners' learning engagement, motivation, and outcomes in a flipped classroom. Computers & Education, 194, p.104684. Accessed from https://www.sciencedirect.com/science/article/pii/S036013152200255X
- [30] Kaisar, S., 2023. Alternative assessment practices in higher education during the COVID-19 pandemic. Journal of Learning and Educational Policy, 3(5). Accessed from https://www.researchgate.net/profile/Shahriar-Kaisar/publication/372902853
- [31] Kofinas, A.K., Tsay, C.H.H. and Pike, D., 2025. The impact of generative AI on academic integrity of authentic assessments within a higher education context. British Journal of Educational Technology. Accessed from https://bera-journals.onlinelibrary.wiley.com/doi/abs/10.1111/bjet.13585
- [32] Koraishi, O. and Karatepe, C., 2025. Minds vs machines: A comparative study of AI and teacher-generated summaries in ELT. Technology in Language Teaching & Learning, 7(1), pp.1796-1796. Accessed from http://www.castledown.com/journals/tltl/article/view/tltl.v7n1.1796
- [33] McLaren, B.M., Scheuer, O. and Mikšátko, J., 2018. Supporting collaborative learning and e-discussions using artificial intelligence techniques. International Journal of Artificial Intelligence in Education, 20(1), pp.1-46. Accessed from https://journals.sagepub.com/doi/abs/10.3233/JAI-2010-0001
- [34] Meroua, A. and Noudjoud, H., 2024. Investigating the Usefulness of Artificial Intelligence Tools in improving Students' Academic Writing (Doctoral dissertation, university center of abdalhafid boussouf-MILA). Accessed from http://dspace.centre-univ-mila.dz/jspui/handle/123456789/3388
- [35] Misanchuk, M. and Hyzyk, J., 2024. ChatGPT in STEM Teaching: An introduction to using LLM-based tools in Higher Ed. Accessed from https://openlibrary-repo.ecampusontario.ca/xmlui/handle/123456789/2121
- [36] Mohamad, S.N.A. and Nazlan, N.H., 2024. The educator's dilemma: balancing AI advancements with ethical concerns in assessments for higher education. International Journal of e-Learning and Higher Education (IJELHE), 19(2), pp.73-91. Accessed from https://ir.uitm.edu.my/id/eprint/95096/
- [37] Mulenga, R. and Shilongo, H., 2024. Academic integrity in higher education: Understanding and addressing plagiarism. Acta Pedagogia Asiana, 3(1), pp.30-43. Accessed from https://tecnoscientifica.com/journal/apga/article/view/337
- [38] Munir, H., Vogel, B. and Jacobsson, A., 2022. Artificial intelligence and machine learning approaches in digital education: A systematic revision. Information, 13(4), p.203. Accessed from https://www.mdpi.com/2078-2489/13/4/203
- [39] Nurhuda, A., Al Khoiron, M.F., Azami, Y.S.I. and Ni'mah, S.J., 2023. Constructivism Learning Theory in Education: Characteristics, Steps and Learning Models. Research in Education and Rehabilitation, 6(2), pp.234-242. Accessed from https://www.ceeol.com/search/article-detail?id=1213163

- [40] Nwozor, A., 2025. Artificial intelligence (AI) and academic honesty-dishonesty nexus: Trends and preventive measures. AI and Ethics, Academic Integrity and the Future of Quality Assurance in Higher Education, 27. Accessed from https://www.researchgate.net/profile/Mamman-Muazu-2/publication/384969429
- [41] Ogwueleka, F.N., 2025. Plagiarism Detection in the Age of Artificial Intelligence: Current Technologies and Future Directions. AI and Ethics, Academic Integrity and the Future of Quality Assurance in Higher Education, p.10. Accessed from https://www.researchgate.net/profile/Mamman-Muazu-2/publication/384969429_AI
- [42]Ossai, M.C., Ethe, N., Edougha, D.E. and Okeh, O.D., 2023. Academic integrity during examinations, age and gender
as predictors of academic performance among high school students. International Journal of Educational
Development, 100,
https://www.sciencedirect.com/science/article/pii/S0738059323000871
- [43] Ouyang, F., Zheng, L. and Jiao, P., 2022. Artificial intelligence in online higher education: A systematic review of empirical research from 2011 to 2020. Education and Information Technologies, 27(6), pp.7893-7925. Accessed from https://link.springer.com/article/10.1007/s10639-022-10925-9
- [44] Parker, L., Hayes, J., Loper, A.J. and Karakas, A.L., 2024. Navigating the Unknown: Anticipating Concerns and Gaps in Generative AI Research. In General Aspects of Applying Generative AI in Higher Education: Opportunities and Challenges (pp. 3-20). Cham: Springer Nature Switzerland. Accessed from https://link.springer.com/chapter/10.1007/978-3-031-65691-0_1
- [45] Pedro, F., Subosa, M., Rivas, A. and Valverde, P., 2019. Artificial intelligence in education: Challenges and opportunities for sustainable development. Accessed from https://repositorio.minedu.gob.pe/handle/20.500.12799/6533
- [46] Pilotti, M.A., Alaoui, K.E., Abdelsalam, H.M. and Khan, R., 2023. Sustainable development in action: A retrospective case study on students' learning before, during, and after the pandemic. Sustainability, 15(9), p.7664. Accessed from https://www.mdpi.com/2071-1050/15/9/7664
- [47] Raheem, B.R., Anjum, F. and Ghafar, Z.N., 2023. Exploring the profound impact of artificial intelligence applications (Quillbot, Grammarly and ChatGPT) on English academic writing: A Systematic Review. International Journal of Integrative Research (IJIR), 1(10), pp.599-622. Accessed from https://www.researchgate.net/profile/Zanyar-Ghafar/publication/375238415_
- [48] Rahimi, R.A. and Oh, G.S., 2024. Rethinking the role of educators in the 21st century: navigating globalization, technology, and pandemics. Journal of Marketing Analytics, 12(2), pp.182-197. Accessed from https://link.springer.com/article/10.1057/s41270-024-00303-4
- [49] Slimi, Z. and Carballido, B.V., 2023. Navigating the Ethical Challenges of Artificial Intelligence in Higher Education: An Analysis of Seven Global AI Ethics Policies. Tem Journal, 12(2). Accessed from https://www.ceeol.com/search/article-detail?id=1122977
- [50] Stanoyevitch, A., 2024. Online assessment in the age of artificial intelligence. Discover Education, 3(1), p.126. Accessed from https://link.springer.com/article/10.1007/s44217-024-00212-9
- [51] Stefaniia, K., 2024. AI vs. Authenticity: Evaluating the Perception of AI-generated Branded Content on Instagram Among Generation Z Students in Higher Education. Accessed from https://www.theseus.fi/handle/10024/875795
- [52] Szmyd, K. and Mitera, E., 2024. The Impact of Artificial Intelligence on the Development of Critical Thinking Skills in Students. European Research Studies Journal, 27(2), pp.1022-1039. Accessed from https://ersj.eu/journal/3876/download/The+Impact+of+Artificial+Intelligence+on+the+Development+of+Crit ical+Thinking+Skills+in+Students.pdf
- [53] Tossell, C.C., Tenhundfeld, N.L., Momen, A., Cooley, K. and de Visser, E.J., 2024. Student perceptions of ChatGPT use in a college essay assignment: Implications for learning, grading, and trust in artificial intelligence. IEEE Transactions on Learning Technologies, 17, pp.1069-1081. Accessed from https://ieeexplore.ieee.org/abstract/document/10400910/
- [54] Xia, Q., Weng, X., Ouyang, F., Lin, T.J. and Chiu, T.K., 2024. A scoping review on how generative artificial intelligence transforms assessment in higher education. International Journal of Educational Technology in Higher Education, 21(1), p.40. Accessed from https://link.springer.com/article/10.1186/s41239-024-00468-z

- [55] Wang, Y., Wang, H., Wang, S., Wind, S.A. and Gill, C., 2024. A systematic review and meta-analysis of selfdetermination-theory-based interventions in the education context. Learning and Motivation, 87, p.102015. Accessed from https://www.sciencedirect.com/science/article/pii/S0023969024000572
- [56] Zhai, C., Wibowo, S. and Li, L.D., 2024. The effects of over-reliance on AI dialogue systems on students' cognitive abilities: a systematic review. Smart Learning Environments, 11(1), p.28. Accessed from https://link.springer.com/article/10.1186/s40561-024-00316-7
- [57] Zhao, H., Chen, Y. and Liu, W., 2023. Socially responsible human resource management and employee moral voice: Based on the self-determination theory. Journal of Business Ethics, 183(3), pp.929-946. Accessed from https://link.springer.com/article/10.1007/s10551-022-05082-5