

AI-giarism and Beyond: Mapping the Risks and Opportunities of Generative AI for Academic Integrity in Higher Education.

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Systematic Review

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Abstract

The rapid integration of Generative Artificial Intelligence (GenAI) into higher education has sparked urgent debate about its implications for traditional scholarly standards. This systematic literature review (SLR) investigates how GenAI impacts academic integrity in higher education, identifying specific risks to student honesty and emerging opportunities for pedagogical transformation. Following the PRISMA 2020 framework, 104 records were screened, yielding a final selection of 19 peer-reviewed articles published between 2023 and 2026. Data were synthesized using thematic analysis, and findings are categorized into three core themes: (1) Academic Integrity and the Evolution of Misconduct, (2) Policy and Institutional Strategy, and (3) Ethics and Educational Impact. The review identifies a persistent policy gap in higher education and a shift from traditional plagiarism to "AI-giarism." The impact of GenAI is found to be transformative rather than purely destructive: while it presents significant risks to current product-based assessments, it offers a critical opportunity to modernize education through AI literacy and process-based evaluation. The study concludes that academic integrity must transition from a policing-based model to an ethical partnership model between students and institutions.

1. Introduction

1.1 Background

The rapid emergence of generative artificial intelligence (GenAI) tools—such as ChatGPT, Gemini, and Claude—is reshaping teaching, learning, and assessment across higher education. Powered by large language models capable of producing fluent, human-like text, these systems are now readily accessible to students and staff and are being integrated into everyday academic practices, from drafting essays to coding assistance [1]. Their diffusion has been global and fast, with high awareness and growing adoption reported across diverse disciplines, institutions, and cultural contexts [2, 3].

At the same time, academic integrity remains a foundational pillar of higher education, underpinning trust in qualifications, fairness in assessment, and the development of genuine knowledge and skills. Long-standing concerns about plagiarism, contract cheating, and unfair advantage have been intensified by GenAI's capacity to generate original-seeming work that can evade traditional plagiarism detection and is often indistinguishable from student writing [4, 5]. Institutions report fragmented and sometimes reactive responses—ranging from outright bans to cautious experimentation—often in the absence of clear policies or shared norms on acceptable AI use [1, 6–8].

Emerging research depicts GenAI as a dual-use technology: it can enhance learning, feedback, accessibility, and productivity while simultaneously creating new avenues for academic misconduct and undermining authentic assessment if misused [9–14]. Students and educators themselves express ambivalent views, recognizing both opportunities for support and risks of over-reliance, erosion of critical thinking, and blurred authorship [3, 12, 13, 15]

Against this backdrop, there is a growing but still fragmented body of work on how GenAI is affecting academic integrity at the level of student behavior, assessment design, institutional policy, and educational culture [8, 9, 16, 17]. What is missing is a systematic synthesis that brings these strands together, distinguishes between empirically documented risks and benefits, and maps the emerging responses of higher education systems.

1.2 Statement of the Problem

The rapid diffusion of GenAI tools such as ChatGPT in higher education has created both powerful learning opportunities and serious threats to academic integrity. Recent systematic reviews show that GenAI can enhance engagement, feedback, and personalization but also enables new forms of plagiarism, contract cheating, and authorship ambiguity [9, 18]. Empirical work and reviews report that institutions are struggling to adapt policies, assessments, and integrity frameworks fast enough, resulting in inconsistent guidance to staff and students [8, 9, 11].

Although multiple reviews examine GenAI in higher education or in specific domains (e.g., academic skills, academic writing, computing, pharmacy, medical education), they either address integrity only as one theme among many or focus on single disciplines [9, 18]. There is still no focused synthesis that systematically maps how GenAI affects academic integrity across higher education, balancing opportunities (e.g., integrity education, authentic assessment design) against risks (e.g., undetected AI-generated work, erosion of skills, inequity) and documenting institutional responses [8, 9, 11]. This gap justifies a systematic literature review dedicated specifically to the opportunities and risks of GenAI for academic integrity in higher education.

1.3 Research Questions

This review is guided by three research questions:

1. What are the specific threats to academic honesty identified in current literature?
2. What opportunities for enhancing academic integrity and learning are identified
3. What pedagogical shifts and policy frameworks are recommended to move institutions from a detection-based model to an integrity-by-design approach?

1.4 Objectives

The review aims to:

- Identify the specific risks that GenAI poses to academic integrity
- Explore the educational opportunities provided by GenAI
- Analyze existing institutional policies and pedagogical strategies in the literature to determine the most effective methods for managing AI integration.

2. Literature Review

2.1 Academic Integrity in Higher Education

Academic integrity has traditionally been defined as adherence to values such as honesty, trust, fairness, respect, and responsibility within academic work. The literature highlights long-standing concerns around plagiarism, collusion, contract cheating, and exam misconduct, driven by factors such as performance pressure, high-stakes assessment, and digital access to information. Institutions have responded through honor codes, plagiarism detection software, integrity education, and assessment redesign. However, most of this work assumes human authorship and detectable text reuse—conditions that are challenged by generative AI.

Bittle and El-Gayar's systematic review of 41 studies (2021–2024) finds that GenAI can increase educational engagement and efficiency but simultaneously enables new forms of academic dishonesty and challenges traditional approaches to integrity enforcement [9]. Similar concerns emerge in Sharma and Panja's review of 23 studies, which identifies ethical controversies, inconsistencies in institutional responses, and fragmented guidelines around plagiarism, cheating, and legitimacy in the age of GenAI [19]. Matjola likewise concludes that current research on GenAI and integrity is methodologically diverse but often lacks cross-cultural perspectives and discipline-specific depth.

2.2 Emergence of Generative AI in Educational Contexts

Recent advances in large language models and other generative systems have enabled tools that can produce fluent text, code, images, and other artifacts on demand. Studies in higher education report rapid uptake by both students and staff for purposes such as brainstorming, drafting assignments, explaining concepts, summarizing readings, and generating feedback. Research also notes variation across disciplines, levels of study, and digital literacy. While some authors emphasize generative AI as an extension of existing learning technologies, others argue that its ability to produce original-appearing work represents a qualitative shift in the academic landscape.

Broader SLRs on GenAI in higher education consistently flag academic integrity as a central risk. Batista et al. synthesize 37 empirical studies and highlight assessment integrity, institutional strategies, and ethical issues—particularly the difficulty of maintaining authentic assessment in the presence of powerful text generators [18]. Suprobo et al. report that GenAI supports tutoring, text generation, and design tasks but also threatens knowledge development, encourages cheating, and raises privacy and legal concerns, underscoring the need for clear regulations. Deroncele-Acosta et al. identify academic integrity as a key "transversal competence" implicated in critical and ethical GenAI adoption, alongside AI literacy, responsibility, and self-regulation [20].

2.3 Opportunities of Generative AI for Learning and Integrity

A growing body of literature points to potential benefits of generative AI when used transparently and ethically. These include personalized tutoring, language support for multilingual students, scaffolding

academic writing, and rapid formative feedback. Some scholars argue that by making thinking processes more visible (e.g., through iterative prompts and revisions), generative AI can enhance metacognitive skills and support integrity education. There is also discussion of using generative AI to create authentic assessment tasks, generate variant questions, and model good academic practices, which may indirectly reduce incentives for cheating.

At the level of practices and policy, multiple studies show that existing integrity frameworks and assessment designs are under strain. Plata et al. review 37 articles and policies of leading universities, finding convergent themes around enforcement, education, and encouragement of responsible GenAI use; they propose a "3E Model" to guide institutions in updating integrity policies and assessment practices [8]. Kofinas et al. provide experimental evidence that markers often cannot reliably detect GenAI-assisted work and that authentic assessments alone do not guarantee integrity, calling for process- and performance-based assessment redesign [4]. Song characterizes GenAI-enabled misconduct as a "higher education crisis," arguing that most institutions lack robust AI policies and AI literacy strategies [7]. Coates et al. go further, proposing an academic integrity indicator framework and governance reforms to ensure the "authenticity of higher thinking" in a GenAI-saturated environment [21].

Several reviews and conceptual papers emphasize ethical and policy dimensions. Arar et al. map research integrity risks across the research lifecycle, including plagiarism, hallucinations, and biased algorithms, and note that institutional ethics policies have not kept pace with GenAI's integration [22]. Rana's policy review shows that universities and publishers increasingly require disclosure of AI use, discourage listing AI tools as authors, and warn about bias and hallucination, while still lacking mature, consistent norms for AI-mediated authorship and acknowledgement. Bozkurt critically analyses GenAI's implications for authorship, ownership, and academic ethics, arguing for transparent reporting of AI use and new mechanisms to uphold integrity amid "publish or perish" pressures [23].

2.4 Risks of Generative AI to Academic Integrity

Conversely, many studies highlight serious risks. Generative AI can be used to produce entire essays, problem solutions, or code that are difficult to distinguish from genuine student work, challenging existing notions of authorship and originality. Researchers report concerns about "AI-assisted plagiarism," contract cheating facilitated through AI, and the erosion of skills if students over-rely on automated generation. The reliability and accuracy of AI-generated content is also questioned, as hallucinated references or incorrect information may be presented confidently, complicating detection and evaluation. These developments threaten the validity of traditional take-home assessments and may undermine trust in qualifications.

Discipline- and function-specific reviews deepen this picture. Chanpradit's SLR on GenAI in academic writing finds clear gains in cohesion, clarity, and fluency but also heightened risks of plagiarism, over-reliance, hallucinations, bias, and unequal access, making institutional guidelines and AI literacy essential. Daniel et al.'s SLR on academic skills development shows that GenAI can enhance cognitive, technical, and interpersonal skills, but only when embedded in ethical frameworks and ongoing

monitoring. In medical education, Kldiashvili et al. demonstrate that project-based learning can reduce AI-related plagiarism and support originality, while Turnitin and similar tools only partially detect sophisticated AI-generated content. Farrelly and Baker highlight both the risks of AI-detection false accusations and the potential of GenAI to support international students' language and accessibility needs, advocating a balanced, equity-focused approach [6].

2.5 Institutional Policies and Assessment Responses

Emerging literature documents a range of institutional responses. Some universities have banned certain tools, while others are integrating them into curricula under explicit guidelines. Policy documents and commentaries discuss issues of disclosure, authorship, data privacy, and equity of access. Pedagogical responses include redesigning assessment toward more authentic, process-based, or in-person tasks; emphasizing oral defenses, reflective commentary, and drafts; and teaching students to use AI critically and transparently. Research also explores the limits of AI-detection tools and the ethical concerns around their use.

2.6 Conceptual and Ethical Frameworks

Scholars are beginning to propose frameworks for AI literacy, responsible AI use, and post-plagiarism conceptions of academic integrity that account for human-AI collaboration. Ethical analyses consider fairness, bias in AI systems, power imbalances between institutions and students, and the risk of surveillance-oriented responses (e.g., aggressive detection technologies). This literature suggests that academic integrity in the age of generative AI must move beyond a narrow focus on rule-breaking to include broader questions about the purposes of higher education, the role of technological mediation, and the development of critical digital citizenship.

2.7 Gaps in the Existing Literature

Despite rapid publication growth, the evidence remains scattered across disciplines and dominated by early opinion pieces, small-scale surveys, and case studies. There is limited systematic synthesis of empirical findings on how generative AI is actually used, how it affects misconduct patterns, and which institutional responses are effective. Longitudinal studies, cross-cultural comparisons, and evaluations of specific interventions (e.g., redesigned assessments, AI literacy programs) are particularly scarce. These gaps justify the need for a systematic literature review focusing specifically on the relationship between generative AI and academic integrity in higher education.

Across these works, several common themes emerge:

- GenAI is already widely used by students and staff, often ahead of institutional policy ([9, 18].
- Risks include AI-assisted plagiarism, contract cheating, hallucinated or biased content, erosion of skills, detection unreliability, and inequities in access and surveillance [4, 6, 7, 9, 19, 22, 23]

- Opportunities include enhanced feedback, writing support, skill development, and authentic or process-oriented assessment, provided use is transparent and guided ([9, 18].
- Effective responses require integrated policy, pedagogy, governance, and AI literacy, rather than reliance on bans or detection technologies alone ([8, 18, 19, 21].

The included literature can be organized into six interrelated research strands. The first strand comprises systematic reviews that directly examine the relationship between GenAI and academic integrity; these studies consistently report dual impacts, fragmented institutional policies, and notable research gaps ([9, 19]. A second, broader strand consists of systematic reviews of GenAI in higher education more generally, which identify assessment integrity and ethics as core challenges alongside other pedagogical and technological considerations ([18, 20]. A third strand focuses specifically on assessment and detection, finding that authentic assessment alone is insufficient to guarantee integrity and that markers often struggle to reliably detect GenAI-assisted work [4]. The fourth strand addresses policies and governance, proposing frameworks such as the 3E model and academic integrity indicator systems, while documenting the evolving and still inconsistent policies of universities and publishers ([8, 21, 23]. A fifth strand examines skills and writing support, reporting improved writing quality and skill development but also heightened risks of plagiarism, bias, and over-reliance [6]. Finally, a sixth strand concerns integrity and research ethics, highlighting plagiarism, hallucinations, biased algorithms, and immature ethics frameworks (Arar et al., 2025; Salman et al., 2025). Together, these strands illustrate both the breadth of the emerging evidence base and its continued fragmentation across disciplines and research traditions.

3. Methodology

To ensure a rigorous and transparent approach to evidence synthesis, this study employed a systematic review methodology guided by the PRISMA 2020 framework. The process involved a comprehensive search of relevant databases to identify studies aligned with the research objectives. Following the removal of duplicates and ineligible records, titles and abstracts were screened for relevance. Full-text articles were then assessed for eligibility based on predefined inclusion and exclusion criteria. The final selection of studies was documented using a PRISMA flow diagram which outlines each stage of the review process from identification to inclusion, ensuring reproducibility and clarity in study selection.

3.1 Databases and Search Strategy

The systematic literature search was conducted using three electronic databases: Scopus, ScienceDirect, and Emerald Insight. These databases were chosen because they provide extensive coverage of peer-reviewed journals across different fields of research.

3.1.1 Keywords and Boolean Operators

Search terms were developed based on the key concepts of the review: generative AI, academic integrity, and higher education. Keywords were combined using Boolean operators (AND/OR) and adapted to each

database's syntax:

("artificial intelligence" OR AI OR "generative AI" OR "large language model" OR LLM OR chatbot* OR ChatGPT) AND ("academic integrity" OR "academic dishonesty" OR "academic misconduct" OR cheating OR plagiarism OR "contract cheating" OR "assessment integrity") AND ("higher education" OR university* OR college* OR "tertiary education" OR "postsecondary education") AND (benefit* OR opportunity* OR challenge* OR risk* OR "ethical concern" OR "student perception" OR "teacher perception*")

3.2 Inclusion and Exclusion Criteria

Studies were selected according to predefined eligibility criteria (Table 2).

Table 2: Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
Peer-reviewed journal articles and conference papers	Non-peer-reviewed documents like blogs, opinion pieces, editorials, theses
Focus on higher education contexts like universities, colleges, tertiary institutions	Studies focusing on primary or secondary education
Address generative AI/AI tools in relation to academic integrity, ethics, or assessment	Papers addressing AI in education without any link to integrity, ethics, or assessment
Published between 2023 and 2026	Articles published before 2023
Written in English	Non-English publications
Empirical studies, systematic reviews, or robust theoretical/conceptual papers	Papers not available in full text

3.3 Screening and PRISMA Flow

The selection proceeded in stages following PRISMA. From an initial 104 records identified, titles were examined to remove duplicates, leaving a shortlist of 79 papers. After applying the assessment criteria, 19 studies met all inclusion criteria and were retained for synthesis (see Figure 1).

As indicated in Figure 1, the initial database search yielded 104 records. After preliminary screening of titles and abstracts, 54 records were excluded for failing to meet the inclusion criteria (primarily due to a focus on high school education or general AI applications lacking an academic integrity focus). This resulted in 25 reports sought for full-text retrieval, all of which were successfully retrieved and assessed for eligibility. During full-text review, an additional 6 articles were excluded—one for its exclusive focus on secondary school settings and five for insufficient depth regarding integrity policies—leaving a final sample of 19 studies for qualitative synthesis.

3.4 Data Extraction and Synthesis

For each of the 19 studies, data were extracted on author, year, tool, integrity issues discussed, and key findings or recommendations. This reflects standard SLR practice for building a structured evidence table. Given the heterogeneity of designs, a qualitative thematic synthesis was used. The selected articles were categorized into three thematic clusters:

- 1. Academic Integrity & Misconduct
- 2. Policy & Institutional Strategy
- 3. Ethics & Educational Impact

3.5 Ethical Considerations

The ethical dimension of this review was addressed by prioritizing studies that explicitly discussed the moral implications of GenAI in education. This included an analysis of how studies handled themes of authorship, transparency, equity, and institutional responsibility.

4. Results

The comprehensive searches conducted across three key academic databases—Scopus, ScienceDirect, and Emerald—aimed to gather recent publications on GenAI and academic integrity within higher education. The search, spanning 2023 to 2026, initially identified 104 records. A thorough verification confirmed 25 duplicates. The screening process continued by evaluating studies based on their relevance to GenAI in higher education and academic integrity. This screening led to the exclusion of 54 records due to irrelevance to the defined topic or focus area, leaving 25 full-text articles for detailed assessment. Of these, 6 articles were excluded for insufficient relevance to the study topic, narrowing the selection to 19 articles (Table 3).

Table 3. Overview of included studies.

No	Theme	Author (Year)	Major Findings / Key Insights
1	Academic Integrity & Misconduct	Balalle et al. (2025)	Systematic review confirming that while GenAI aids learning, its potential for undetectable plagiarism requires a total reassessment of integrity frameworks.
		Bin-Nashwan et al. (2023)	Investigates how academic integrity "hangs in the balance," noting that students often perceive AI as a tool rather than a violation.
		Rasul et al. (2024)	Proposes a holistic framework for academic integrity, moving beyond detection to focus on student ethics and redesigned assessments.
		Ivanov (2023)	Explores the "dark side" of AI, focusing on how automation can diminish critical thinking and encourage academic dishonesty.
		Sah et al. (2025)	Reveals a disconnect: students use AI to manage stress, while faculty remain cautious and lack formalized integrity policies.
		Abdallah et al. (2025)	Notes that misuse of ChatGPT increases technostress and hinders independent learning, despite its cognitive benefits.
		Leite (2025)	Longitudinal study showing that students view GenAI as a "double-edged sword"—boosting productivity but risking academic misconduct.
		Mujtaba (2025)	Highlights the need for "Governance Protocols" to manage ethical challenges and data-driven biases in digital education.
2	Policy & Institutional Strategy	Jogezai et al. (2025)	Argues for strategic policy frameworks that align GenAI use with Sustainable Development Goal 4 (Quality Education).
		Deng & Joshi (2024)	Focuses on promoting "Ethical Use" through institutional guidelines that define clear boundaries for students.
		Ali et al. (2024)	Meta-analysis highlighting that current institutional strategies are reactive rather than proactive regarding AI integration.
		Elbanna et al. (2024)	Suggests that institutions must adapt curricula to focus on "human-AI collaboration" rather than just banning the tools.
		Salido et al. (2025)	Proposes that critical thinking skills should be the cornerstone of any new AI-focused educational strategy.
		Mujtabam (2024)	Clarifies ethical dilemmas by dispelling myths about AI, advocating for higher "AI Literacy" for both students and staff.

	Fošner et al. (2025)	Reveals that university students are cautious; most believe over-dependence on AI will destroy the purpose of creative writing.
	Clark et al. (2024)	Shows that high-performing students use AI more effectively/ethically, suggesting that "use patterns" are a key policy area.
3. Ethics & Impact	Abulibdeh et al. (2024)	Navigates the ethical dimensions of AI in "Industry 4.0," emphasizing the need for a balanced approach to ensure sustainability.

4.1 Thematic Findings

The systematic analysis of the 19 included studies revealed three primary thematic clusters that define the current landscape of GenAI and academic integrity in higher education.

Theme 1: Academic Integrity and the Nature of Misconduct

The largest body of literature explores how GenAI redefines academic dishonesty. Unlike traditional copy-paste plagiarism, studies such as and identify a shift toward AI-giarism, where students generate unique but non-original text.

Detection Challenges: A consistent finding across this theme is the increasing unreliability of AI-detection software, which creates a detection gap that renders traditional policing methods ineffective.

Student Motivations: Research by [24] indicates that students often turn to GenAI not out of a desire to cheat but as a coping mechanism for academic stress and high workloads.

Theme 2: Policy and Institutional Strategy

This theme focuses on the systemic response to AI integration.

The Policy Gap: [7] and [12] highlight a significant lag between the rapid adoption of GenAI tools by students and the development of formalized institutional policies.

Assessment Reform: A core finding in studies by [25] is that integrity cannot be protected by rules alone; it requires a move toward AI-resilient assessments, such as oral examinations, in-class invigilated tasks, and reflective portfolios.

AI Literacy: [25] emphasizes that AI literacy must become a foundational student competency to ensure students understand the ethical boundaries of AI assistance.

Theme 3: Ethics and Long-Term Educational Impact

Socio-Technical Implications: [26] address the broader ethical dimensions, arguing that the impact of AI extends beyond cheating to the very purpose of a degree, necessitating a sustainable and human-

centered approach to technology.

Cognitive Atrophy: [27] warn that over-dependence on GenAI may diminish students' critical thinking and creative writing skills.

Equity and Access: [6] highlight both the risks of AI-detection false accusations and the potential of GenAI to support international students' language and accessibility needs, advocating a balanced, equity-focused approach.

5. Discussion

5.1 The Risk–Opportunity Paradox

The results suggest a fundamental paradox. The primary risk identified is the potential for cognitive atrophy, where reliance on GenAI diminishes students' critical thinking and creative writing skills [27]. Conversely, the greatest opportunity lies in personalized learning support. As noted by [24], GenAI can act as a leveler for second-language learners and students requiring additional scaffolding, provided it is used as a co-pilot rather than an autopilot.

5.2 The Strategic Shift: From Policing to Partnership

The literature indicates that the era of policing integrity via software is coming to an end. The discussion in papers such as [28] suggests that institutions must move toward an Ethical Partnership Model. This involves a psychological shift where academic integrity is framed as a shared responsibility. The impact of AI on integrity is thus mitigated not by banning the tool but by integrating it into the curriculum with high transparency and documentation requirements.

5.3 The Future of Assessment

A critical point of discussion is the necessity of authentic assessment. The findings suggest that as GenAI becomes more sophisticated, product-based grading (grading the final essay) becomes obsolete. The discussion points toward process-based grading, where students are graded on their drafts, their prompts, and their reflections. This approach directly addresses the impact identified in the results by making the misuse of AI more difficult and less rewarding.

5.4 Synthesis of Impact

Ultimately, the impact of GenAI on academic integrity is transformative rather than destructive. While it presents significant risks to current evaluative methods, it offers an unprecedented opportunity to modernize higher education. The 19 articles collectively suggest that the crisis of academic integrity is actually a crisis of assessment—one that can be solved by aligning teaching strategies with the realities of an AI-augmented world.

5.5 Implications for Practice

The findings have several implications for higher education institutions:

Policy Development: Institutions must urgently close the policy gap by developing clear guidelines that define acceptable AI use, including disclosure requirements and consequences for misuse.

Assessment Redesign: Faculty should move away from AI-vulnerable assignments (e.g., generic take-home essays) and adopt AI-resilient strategies, including oral exams, reflective portfolios, and process-based grading.

AI Literacy: AI literacy should be embedded in curricula as a foundational competency for both students and staff.

Ethical Culture: Institutions should foster an ethical partnership model that frames academic integrity as a shared responsibility rather than a policing function.

5.6 Limitations

This review has several limitations. First, the search was limited to three databases (Scopus, ScienceDirect, and Emerald), which may have excluded relevant studies published elsewhere. Second, the review focused on English-language publications, potentially missing important non-English contributions. Third, the rapid pace of GenAI development means that the evidence base is constantly evolving; studies published after the search date may offer new insights. Finally, the heterogeneity of study designs and contexts limits the generalizability of findings.

6. Conclusion

This systematic literature review has mapped the complex intersection of Generative AI and academic integrity within higher education. By analyzing 19 core studies, it is evident that GenAI represents a paradigm shift that challenges the very definition of "original work."

The review addressed the research questions by identifying the primary risks—including cognitive outsourcing, where reliance on AI may lead to an atrophy of critical thinking skills, and the failure of existing detection software, which leaves universities vulnerable to undetectable forms of misconduct. Conversely, the greatest opportunity lies in the forced evolution of pedagogy. GenAI serves as a catalyst for moving toward authentic assessment and providing personalized scaffolding for diverse student populations, which can ultimately enhance learning if managed ethically.

The review concludes that academic integrity must transition from a policing-based model to an ethical partnership model between students and institutions. This shift requires integrated policy, pedagogy, governance, and AI literacy—rather than reliance on bans or detection technologies alone.

7. Recommendations

Based on the findings, the following recommendations are offered:

For Institutions it is better to develop clear, transparent policies on acceptable AI use; invest in AI literacy programs for students and staff; and support faculty in redesigning assessments. For faculty adopting AI-resilient assessment strategies, including oral examinations, in-class tasks, reflective portfolios, and process-based grading; explicitly teach ethical AI use within disciplinary contexts. Policy makers should align AI-in-education policies with broader quality assurance frameworks and sustainable development goals.

Lastly, longitudinal studies on GenAI's long-term impact on learning outcomes needs to be conducted; evaluate the effectiveness of specific interventions like AI literacy programs, assessment redesign and explore cross-cultural perspectives on academic integrity in the AI era.

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Figures

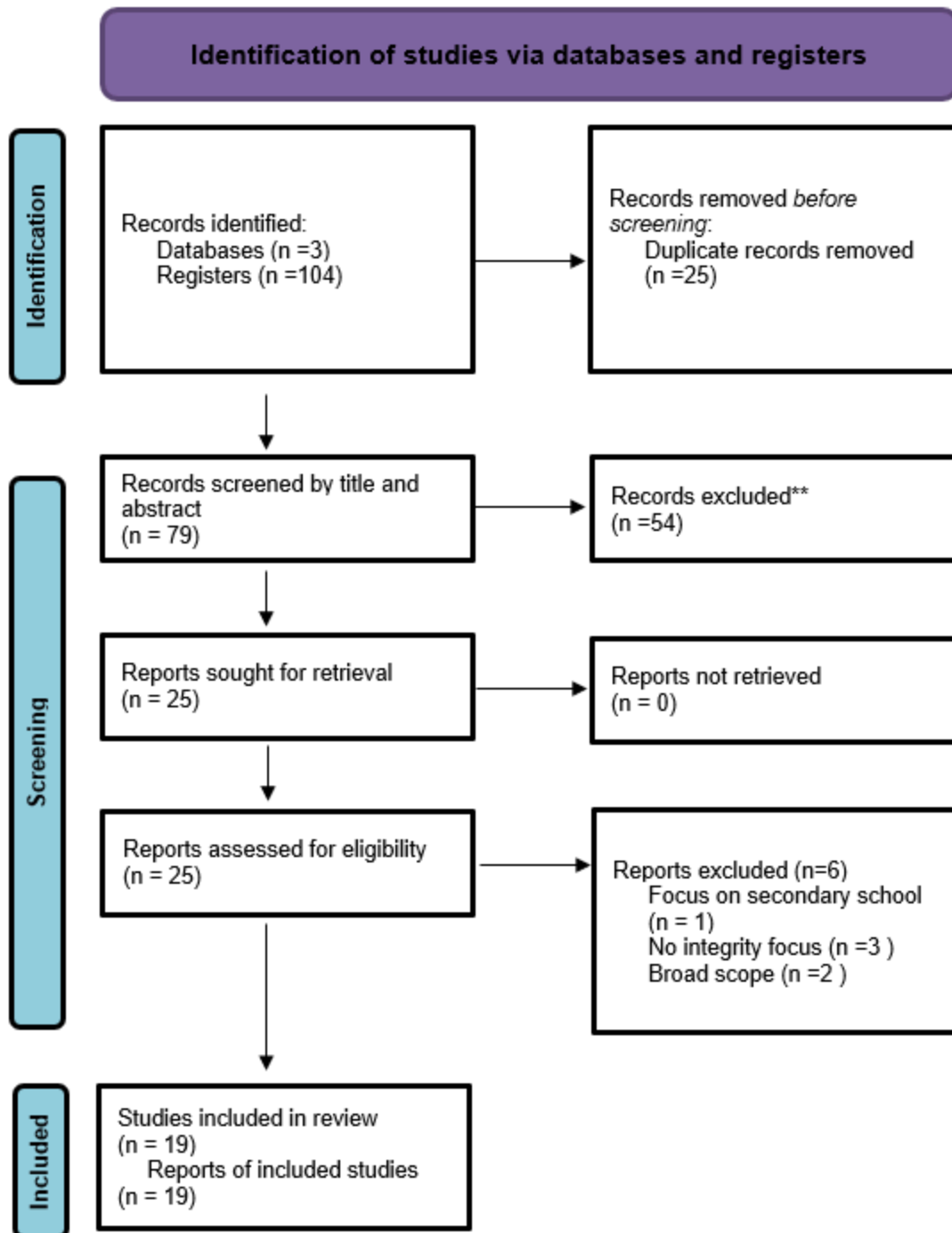


Figure 1

PRISMA 2020 flow diagram of study selection.