

RESEARCH ARTICLE



Designing School Policy and Practice for Academic Integrity in the Age of GenAI: A Design-Based Research Project in a Regional School

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Abstract: The widespread free access to generative artificial intelligence (GenAI) has radically shifted the educational landscape. Schools find themselves largely unprepared to navigate this new terrain: both in understanding how to harness the potential of GenAI for educational enhancement and developing strategies to ensure student integrity in demonstrating authentic learning outcomes. This study reports on a design-based research collaboration between a regional Australian university and a secondary school to address these challenges through policy and practice innovation. The aim was to both promote and maintain academic integrity, alongside considering how GenAI might be harnessed for educational benefit and lifelong learning. Over six months, researchers and educators worked collaboratively to analyze school staff needs using a whole-school survey and focus groups, followed by co-design of policy and pedagogical responses, which were iteratively tested and refined. Key findings revealed that staff required clear guidance on acceptable GenAI use, consistent policy enforcement, and professional learning. The project has resulted in the development of policy, procedure, and support resources that have been released as an Open Education Resource. The findings offer practical insights for schools navigating GenAI integration and contribute to broader discussions on educational change, assessment validity, and ethical technology use.

Keywords: academic integrity, generative artificial intelligence, design-based research, policy

1. Introduction

Academic integrity has become an increasingly important dimension of educational practice in recent years. With the commercialization of online cheating services and the rapid advancement of technologies such as artificial intelligence (AI), file sharing, and social media platforms, the nature of academic misconduct has shifted beyond traditional forms of cheating such as plagiarism or collusion. Of particular concern for schools is generative artificial intelligence (GenAI), which can produce a human-like chat interface that can provide information, generate suggestions, produce sophisticated multi-modal outputs, and undertake extensive editing when prompted suitably [1]. Given the capabilities of this technology and its free or low-cost access to many, concerns exist not only for the veracity of student-produced work and whether it genuinely represents their learning and capabilities but also for the loss of learning opportunities that occur when students outsource such tasks to GenAI. While in the earliest stages, schools

may have banned the use of GenAI tools and attempted to detect the use of such technologies in students' work, the broad uptake of GenAI by popular editing tools like Grammarly and its integration into Microsoft Word with the new service Copilot [2] or Google's Gemini mean that simply banning GenAI is virtually impossible. Moreover, this has significant pedagogical ramifications. For schools to ignore such technology is to fail to prepare students for a world in which such technologies will only continue to be utilized. Yet, many schools understandably feel "left behind" when the rapid advances in technology far outstrip the pace of adaptation within schools and pedagogical processes. Where, then, does this leave schools, which have a responsibility to both equip students to work with GenAI while simultaneously promoting, supporting, and maintaining the academic integrity of their students as an essential element for maintaining the quality and credibility of education?

The International Center for Academic Integrity [3] defines academic integrity as a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage. This values-driven approach translates into concrete behaviors that reflect positive engagement within the academic environment. In contrast, academic misconduct generally

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includes student behaviors that breach academic integrity, falsely demonstrate learning¹, are specifically unauthorized by the academic institution, or give an unfair advantage over other students [4]. The core issue this study seeks to address is how academic integrity can be reinforced or even enhanced in the age of GenAI. However, given the recency of the development of GenAI tools, research regarding the ethical, equitable, and effective implementation of school policies and pedagogical strategies is still emerging.

Part of the challenge to designing policy and pedagogy relating to academic integrity includes understanding how educators can provide learning activities and build formative assessments that cultivate students' evaluative judgment of GenAI outputs, discerning "what good looks like" [5]. From a learning taxonomy perspective (e.g., Bloom's taxonomy), there are logical questions regarding the hierarchy of requisite skills [6]. For instance, how can a learner make evaluative judgments (higher-order thinking) regarding GenAI outputs, without also having related capacities such as remembering, understanding, or applying knowledge in that particular subject area (lower-order thinking)?

Another area of concern is the validity of summative assessment tasks and how teachers can ensure that authentic learning outcomes are being achieved [7]. In many ways, assessment design is fundamental to the task of enhancing academic integrity in schools, because the ultimate goal of related policies and pedagogies is not simply to catch those who might be cheating, but to verify that meaningful learning has actually taken place [8]. As GenAI becomes increasingly sophisticated, it can produce outputs that resemble traditional assessment artifacts such as student reflections, short stories, reports, essays, PowerPoint presentations, scripts, videos, images, code, websites, and more. The question of assessment validity thereby becomes crucial—for what activities or artifacts can teachers prescribe to accurately verify students' actual capabilities [9]? This may entail that some assessment tasks need to shift a focus from the final product to the process of production in order to evidence capabilities. This shift means that in a world in which GenAI is ubiquitous, the real issue is not whether GenAI tools have been used, but whether the learning objectives are still relevant and genuinely measurable.

This paper reports on the design-based research (DBR) approach that was taken by a large regional school in partnership with teaching and academic integrity staff at a regional Australian university to respond to the challenge of promoting academic integrity in the era of GenAI within the school. It was recognized that supporting and creating a culture of academic integrity requires new strategies that are undergirded by institution-wide, systematic, and collaborative approaches. As such, in establishing a framework for addressing these challenges to academic integrity, it was recognized that it is critical to develop and adopt applicable policies, procedures, resources, and training pathways. The research was guided by the research question: "How can staff and students at The Glennie School be supported in understanding and enacting academic integrity in an era of GenAI?" The project's larger aim was to enhance student and staff understanding and enactment of Academic Integrity at the school through the iterative development and refinement of Academic Integrity policy, staff training, and support resources. As a DBR project, the research focused on the development of design solutions to respond to the schools' needs, intended to result in a suite of resources that had been tested and refined

through the research process, in addition to theoretical insights into design principles that underpinned the design process. The project was further informed by Ball et al.'s [10] research on policy work in schools, particularly in framing teachers and administrators as policy actors.

2. Research Context and Literature

This project was conducted in The Glennie School, an Anglican all-girls K-12 school in a major regional center in Australia. The secondary campus has an enrollment of approximately 450 students and a teaching staff of 35. The school is over 100 years old and claims a long history of being at the cutting edge of technological change. By way of example, the school was one of the earliest schools in Queensland to introduce one-to-one laptops for teachers and students in 1996. Since this time, staff have worked to ensure that digital learning tools are used to support effective pedagogy, enhance student learning, and provide them with the digital skills necessary for success in today's globalized, networked world. During the Covid-19 pandemic, the school was able to pivot to online learning with relative ease, already having digital classroom spaces online for each class and both students and staff being familiar with working in these online spaces.

In redesigning both policy and pedagogy, the school determined to adopt what can be described as a neutral stance, which is technology-agnostic. Rather than impose a blanket ban, as some schools and sectors have attempted to do, or allow students the unfettered use of GenAI [11], the school wished to take a third path. Currently, and particularly in the senior years of schooling, students are assessed on both their ability to engage with content matter critically and their ability to demonstrate technical control of spelling, grammar, and punctuation in all Queensland senior syllabi². Until these standards related to writing are amended to allow for the assessment of students' ability to write and use editing tools to produce suitable responses, schools must be able to assess the students' own writing ability independent of technology. As such, the school has made clear that GenAI tools should not be used for summative assessment. However, recognizing that GenAI will rapidly become ubiquitous, the school is also proactively investigating how GenAI can be used in classroom settings, both to support student learning and to ensure students know how to use GenAI appropriately and ethically. This is an approach rapidly gaining traction with Australian educators [12, 13], yet schools and schooling systems have been much slower to respond [11].

2.1. Theoretical framework

An important dimension of this project is the development of policy to underpin process and practice. Technology-agnostic neutrality recognizes that, like all tools, GenAI may have both negative and positive impacts on education. Rather than create policy that responds to popular sites, like ChatGPT or Google Gemini, a technology-agnostic approach allows for policy that addresses the impacts of the tool rather than the specific tool itself; for example, addressing the need for students to be able to show evidence of their own editing rather than banning particular editing tools. This approach has also been successful in the development of social media policy; rather than banning specific sites like

¹Tertiary Education Quality and Standards Agency [TEQSA]. "What is academic integrity?" October 13, 2022. <https://www.teqsa.gov.au/students/understanding-academic-integrity/what-academic-integrity>

²Queensland Curriculum and Assessment Authority [QCAA]. "Senior Subjects. A–Z list of senior subjects". October 24, 2024. <https://www.qcaa.qld.edu.au/senior/senior-subjects/syllabuses>

Table 1
Roles of policy actors

Policy actors	Policy work
Narrators	Interpretation, selection, and enforcement of meanings, mainly done by headteachers and the SLT
Entrepreneurs	Advocacy, creativity, and integration
Outsiders	Entrepreneurship, partnership, and monitoring
Transactors	Production of texts, artifacts, and events
Enthusiasts	Investment, creativity, satisfaction, and career
Translators	Production of texts, artifacts, and events
Critics	Union representatives: monitoring of management, maintaining counter-discourses
Receivers	Mainly junior teachers and teaching assistants: coping, defending, and dependency

TikTok or Snapchat, policy instead speaks to “social media” broadly, thus not requiring revision as the popularity of particular platforms waxes and wanes. This allows policy to remain stable as the general functions, risks, and benefits of the technologies remain relatively consistent.

Neutrality in policy design also allows for greater engagement with the positive aspects of new technologies. While GenAI poses challenges to the maintenance of academic integrity, simply banning the technology denies both students and teachers the opportunity to benefit from its positive aspects and develop valuable skills for its ethical and productive use. As such, some “guardrails” [13] need to be maintained: policy needs to make clear in what circumstances the technology can be used, and students need to be explicitly taught how to use the tools appropriately. This allows teachers to investigate how GenAI tools might be used within their pedagogy, while keeping the student learning outcomes at the forefront, rather than simply using the tool for the tool’s sake. This approach ensures that teachers and students can reap the educational potential of these new technologies while avoiding the potential pitfalls.

This project employs Ball et al.’s [10] conceptualization of “policy work,” which recognizes the complexity of, and varying roles played by, “policy actors” in enacting policy in schools. In this view, school leaders and teachers are not merely passive “recipients” or mindless “agents” of policy, but rather can take up a range of responses, including “indifference or avoidance” [10]. These differing positionalities are a useful lens through which to consider how individual staff respond to significant policy reform (such as the introduction of GenAI to academic policy) and have a direct impact on how policy comes to be enacted or translated into day-to-day teacher practice. Ball et al. describe seven policy positions taken up by policy actors (i.e., leaders and teachers) in schools (Table 1).

Ball et al. [10] note that these positions may be collective as well as individual, and staff may hold multiple positionalities simultaneously. These shifting and overlapping roles can be understood in the broader context of schooling, in which “the school is continually disrupted or faced with contradictory expectation, but this is an incoherence that can be made to work, most of the time.” At a time of particular upheaval as “AI [has] disrupted the world” [14], teachers are faced with new levels of incoherence and contradictory expectations. In terms of specific GenAI-related policy design, international standards and principles provide guidance on factors to consider when developing policy. For example, the OECD AI Principles³ promote the use of trustworthy AI and encourage

policymakers to consider practical and flexible principles when creating effective policy. These include:

- 1) Inclusive growth, sustainable development, and well-being;
- 2) Human rights and democratic values including fairness and privacy;
- 3) Transparency and explainability;
- 4) Robustness, security, and safety; and
- 5) Accountability.

By incorporating these principles into policy, a culture of trust and responsibility can be fostered among staff and students, while promoting the ethical use of GenAI in an academic integrity context. Aligning with international standards ensures the policy is globally relevant (including relevance to other educational institutions) and supports a technology-agnostic approach.

3. Research Methodology

3.1. Research design

Given the aim of this research to generate practical solutions with theoretical robustness to an experienced problem, DBR was chosen as an ideal approach. DBR is an applied research method often used in educational contexts that concentrates on developing workable solutions to problems in context, in addition to generalizable theories that have the potential to underpin action in similar educational situations [15]. The DBR process starts with the recognition and analysis of an issue in its specific context, followed by the design and iterative trialing of a “draft solution” that has been collaboratively developed with stakeholders to address the issue. Importantly, this process of designing the draft solution is underpinned by Ball et al.’s [10] theory of policy work, meaning the formation of the draft design solution is theoretically robust. The process is thus intended to produce not only a “workable solution” but further contribute to the evolution of learning theories that shed light on effective learning or educational processes in the study setting and how educational design can be used to improve this [16]. As such, the design-based researcher adopts the roles of both researcher and designer, combining systematic research methods with creative, generative, and responsive design approaches to establish empirically rigorous theories and principles [17].

For this project, the recognized problem was the lack of clear institutional policy, process, systems, and training pathways to address the new challenge of developing a culture of academic integrity in the era of GenAI. In order to develop an empirically rigorous and workable solution, a four-stage research program was

³OECD AI Principles overview. <https://oecd.ai/en/ai-principles>

planned, informed by the four stages of DBR first proposed by Reeves [18]:

- 1) Analysis of practical problems in context;
- 2) Development of a design solution;
- 3) Iterative testing and refinement of solution/s in practice;
- 4) Reflection to produce a framework of practice and enhance implementation.

The approach, and its specific enactment for this project, is outlined in Table 2.

Recognizing and addressing researcher bias in DBR is an important consideration, particularly when DBR is grounded in real-world settings. In this project, aspects such as institutional culture and leadership narratives had the potential to shape participant perspectives and contributions. Given the school's strong values-based culture, we recognized that staff with dissenting views may not have felt comfortable speaking out. Steps taken to minimize such social bias included undertaking the initial and final survey anonymously, such that all staff had the opportunity to share perspectives privately. Additionally, the surveys (while voluntary) were allocated time during whole-staff meetings, reducing the likelihood that the survey would reflect an overrepresentation of those who held a greater interest in the field of AI. Finally, the triangulation of data sources (survey, focus group, and consultation groups) and iterative member checking during the co-design process were used to work toward a design solution that reflected a broad range of staff perspectives.

3.2. Participant recruitment and ethics

Participants in the project were teachers of students in years 6–12 (the final seven years of school in Australia) and educational leaders in the school. All members of this staff were invited to respond to the Phase 1 survey. Curriculum Leads were additionally invited to participate in the focus group for Phase 1 and the consultancy group in Phase 2. All teaching staff were then involved in the iterative trialing of the revised policy and support resources and invited to provide feedback via the Phase 3 survey, with Curriculum Leads also providing feedback via consultation groups. Participant recruitment was managed by the school administrator to minimize

coercion, who emailed the online link for the surveys to relevant staff, and the invitation and informed consent documentation for focus or consultation groups to Curriculum Leads. The school leadership supported the project by providing time for focus groups and consultancy group meetings within existing staff meetings. Ethical clearance to conduct the research was granted by the university ethics committee (approval number: ETH2023-0134).

3.3. Data collection and analysis

A range of data was collected, according to the phases outlined in Table 2. Data from each phase were analyzed in order to inform the successive phase of the research and design implementation. Phase 1 comprised an initial survey with teaching staff and a focus group with Curriculum Leads. The survey comprised a range of demographic questions, semantic differential scales, and open-ended responses to gather a snapshot of staff understanding of academic integrity policies and processes, the identification of challenges, and suggestions of support that may help to improve academic integrity at the school (see Appendix A). From the 45 teaching staff, 34 full responses were received for the initial survey, providing a strong representation of the overall teaching cohort (see Additional file 1 for survey data). Additionally, five Curriculum Leads were involved in a focus group. Focus groups were intentionally selected over individual interviews to foster collaborative dialogue among educators, enabling the co-construction of insights and surfacing shared challenges and priorities—an approach particularly beneficial in DBR where collective meaning-making is central [19]. Descriptive statistical analysis [20] was used to analyze the survey data. To ensure reliability, two members of the research team coded data independently and came together with the team as a whole to discuss and resolve discrepancies. Thematic analysis was conducted on the open-ended survey responses and focus group data using a deductive coding framework, where the research question provided “the ‘lens’ through which to read and code the data and develop themes” [21]. Again, this was conducted by two researchers who shared and refined the final findings with the research team. A summary of the findings that emerged from the Phase 1 needs analysis was produced to share with the school before proceeding with Phase 2 of the project.

Table 2
Project overview according to Reeves' s four phases of design-based research

Goal	Data collection	Key actions
Phase 1 July 2023 <i>Understand key issues for staff and the learning context</i>	Survey all staff (years 7–12) Focus group with discipline leads	Staff surveys and focus groups identified key challenges and needs related to GenAI and academic integrity, including a lack of clarity around acceptable use, assessment validity, and staff training.
Phase 2 August–December 2023 <i>Collaboratively develop design solution</i>	Consultancy group with select discipline leads	These findings directly informed the co-design of a framework comprising five pillars, including policy, pedagogy, and support resources.
Phase 3 March–July 2024 <i>Iterative testing and refinement of design solution</i>	Survey all staff (years 7–12)	The draft framework was trialed with staff, and feedback was collected via a second survey to refine the resources and implementation strategies.
Phase 4 <i>Evaluation of strategy</i>	Synthesis of data from overall project	Insights from the trial informed the final version of the Open Education Resource and contributed to a transferable model for other schools.

Guided by the findings from Phase 1, Phase 2 represented a process of consultation between the university research team and three Curriculum Leads. This collaborative, iterative co-design process occurred over the course of approximately 6 months in which we worked to develop policy, support resources, practice frameworks, and explicit strategies to support policy implementation. The process resulted in the development of an Open Education Resource: *A Teacher's Guide to Academic Integrity and GenAI* [22]. This was initially presented to the staff at the school for iterative testing and refinement, which constituted Phase 3 of the project, after which it was made available to other schools as an example of practice. This paper reports on Phases 1 and 2 of the Project: understanding the problem in context and the development of the “design solution” in response. Outcomes from Phases 3 and 4 will be reported in a later publication.

4. Findings

In this section, we present the data and conceptualizations that informed Phase 2: the development of the “design solution” that represented the development of policy, process, and practice in supporting academic integrity in the school. An important foundation for this phase of the research was the findings from the Phase 1 needs analysis survey and focus group, which collectively revealed priorities for attention. In summary, the staff expressed they needed a clear, shared understanding or position upon which all other aspects of a strategy for enhancing academic integrity in the school could then be developed. Analysis of the data revealed core considerations:

1. A desire for clarity around acceptable and appropriate use of online resources and digital tools, specifically:
 - a) Shared staff awareness regarding the acceptable use and capabilities of GenAI;
 - b) A school position on the use of originality checking software such as Turnitin;

- c) The establishment of clear policy and processes for the use of GenAI;
 - d) Better/more efficient school-wide detection strategies for misuse; and
 - e) Clear processes and consequences for academic misconduct.
2. Explicit requirements, primarily related to staff training and the kinds of provisions that would support learning, teaching, and assessment in an era of GenAI, including:
 - a) Training regarding the pedagogical possibility of GenAI in teaching;
 - b) Time for collaboration and moderation of student work;
 - c) A school-wide review of assessment types and strategies; and
 - d) A consistent approach to the above aspects within and between departments.
3. Additionally, staff identified that such measures, if addressed, could underpin:
 - a) Clear and consistent communication to parents/families to raise awareness and understanding of the expectations of academic integrity;
 - b) School-wide teaching of academic integrity for all students (e.g., annual course/modules/reminders);
 - c) Awareness raising with students regarding the value of authentic learning, and the role academic integrity plays as a demonstration of this;
 - d) Awareness raising with students regarding the consequences of academic misconduct; and
 - e) Clarity for students around acceptable and appropriate use of online resources and digital tools.

These key findings from Phase 1 were then used to inform the development of a design framework that was used to structure the Phase 2 design solution (see Table 3).

Each section of the developed design framework is now briefly explored, providing insight into the ways that the staff data

Table 3
Development of framework for design solution

Phase 1 key findings	Phase 2 design framework
A consistent approach across the school regarding the communication and enactment of academic integrity.	Fostering academic integrity Developing a culture of academic integrity through articulation of a school position or set of values that underpin the approach and enactment of academic integrity.
Shared staff and student understanding regarding acceptable use and capabilities of AI.	Understanding artificial intelligence A clear description of GenAI and communication of specific structures that would action the school's position on GenAI use, including: Student education, Assessment design, strategies for incorporating GenAI into assessment
Support for learning and teaching in an era of GenAI	Teaching for academic integrity A model for approaching learning and teaching in an era of GenAI, along with resources to support teachers in understanding and embedding academic integrity as a central aspect of all learning and teaching
Awareness raising of academic integrity and key inhibitors to its consistent enactment	Overcoming challenges Developing an understanding of the challenges that can contribute to academic misconduct and how to proactively counter these.
Guidance for detecting and processes for dealing with academic misconduct	Managing misconduct Clear, actionable policy and processes for dealing with misconduct.

arising from Phases 1 and 2 were addressed in the design process and the underpinning theory and research that were considered in developing the design solution.

4.1. Fostering academic integrity

This aspect of the design solution provided the important foundation upon which all other aspects rested: a recognition that all teaching and learning endeavors emerge from a philosophical standpoint. The team began the project with a set of values that would guide this aspect: the belief that all learning endeavors, including but not limited to assessment, should be completed in accordance with the values of honesty, trust, fairness, respect, and responsibility. It is unsurprising that curriculum leaders took on the role of policy narrators, constructing a “story about how the school works and what it does” [10] by framing the project with the school’s values. In rooting their response to GenAI in the long-held school values (with the school founded in 1908), the leadership group’s narrative created “historical continuities” even as they attempted to navigate a “dramatic break” [10] from their past pedagogical and policy practices. This narrative of the school values underpinning the promotion of integrity (rather than simple policy compliance by students), which emerged in teacher responses as a “learning as valuable” discourse. Examples of this included “valuing the work that you complete. . . by creating work that is your own” (R35), “the way your personal values are reflected in your academic life” (R38), “showing their learning to us honestly” (R6), and “valuing learning” (R19). Some respondents identified that maintaining “learning as valuable” was challenging with some students as they “value good marks more than good learning” (R6). The same teacher called for a “shift in the culture at the school so that students don’t see their marks as an end goal but rather as an indicator of how well they are learning” (R6). These comments reflect that while staff discourse centers on “learning as valuable,” the broader influence of educational policy and process that centers on academic high performance (usually for university entry), at times works counter to these values amongst students, as “the policies that count most are those that are counted” [10], such as calculation of final results.

As a result of the “learning as valuable” narrative constructed by leaders and teachers, building a culture that promotes and fosters academic integrity was at the forefront when developing the support resource and subsequent assessment and academic integrity policy. The research team and school partners’ approach was proactive, student-centered, and focused on providing opportunities for students to become confident and critical thinkers who are empowered to make decisions that are informed, ethical, and equitable.

4.2. Understanding GenAI

The critical questions for the staff at Glennie were: “what do we want our students to learn, what skills do we want them to have, and how can we create opportunities for authentic learning to take place”? While there are opportunities for educators to harness GenAI tools to enhance teaching and learning, staff recognized this as an opportunity to reconsider assessment validity and design. In the focus groups, staff noted how they looked for opportunities that focused on developing skills and dispositions that were future-focused and provided opportunities for students to demonstrate their learning through authentic learning experiences and assessment design.

The survey data revealed that a clear and consistent understanding of GenAI was required, alongside a clear and consistent position for staff and students regarding its use in teaching, learning, and assessment. In the collaborative design process, it was determined that advice needed to be provided regarding:

- 1) student education
- 2) assessment design
- 3) strategies for incorporating GenAI into assessment

4.2.1. Student education

Several survey respondents emphasized the need for student education on both the use of GenAI for learning and in understanding the school’s academic integrity policy. Explicit instruction on academic integrity with an “annual course” (R6), “modules” or a “workshop day” (R14), and “training the advantages and limitations of AI software” (R23) were all suggested by teachers. R7 focused on “constant reminders” about policy, while another respondent sought to “support students in understanding what constitutes their own work” (R13). Other staff also called for further professional development for teachers to be able to educate students effectively (R18, R20, R28), both to detect misconduct and “upskill and show students how it can be used appropriately” (R21). This desire to know more to be able to better inform students is reflective of teachers taking up the role of “policy enthusiasts,” as they saw GenAI (and the policies which both allowed its use while maintaining a focus on integrity) as “policies which. . . enabled them to do ‘proper’ teaching, to engage with students in exciting ways, and to grow and develop themselves” [10].

4.2.2. Assessment design

Staff additionally identified the need for verification strategies to ensure the authenticity of student responses, rather than proposing a substantial change in assessment design. This can be attributed in large part to assessment task design in the senior years being externally mandated by the Queensland Curriculum and Assessment Authority, which currently provides no scope for teachers to modify the design of these tasks. Drafting and conversations with students (R13, R15, R17, R22) were key strategies currently adopted. Almost all respondents mentioned the use of monitoring software like Turnitin, blending their role as policy enthusiasts with that of policy transactors, ensuring compliance and accountability [10], particularly in the context of high-stakes senior secondary assessment.

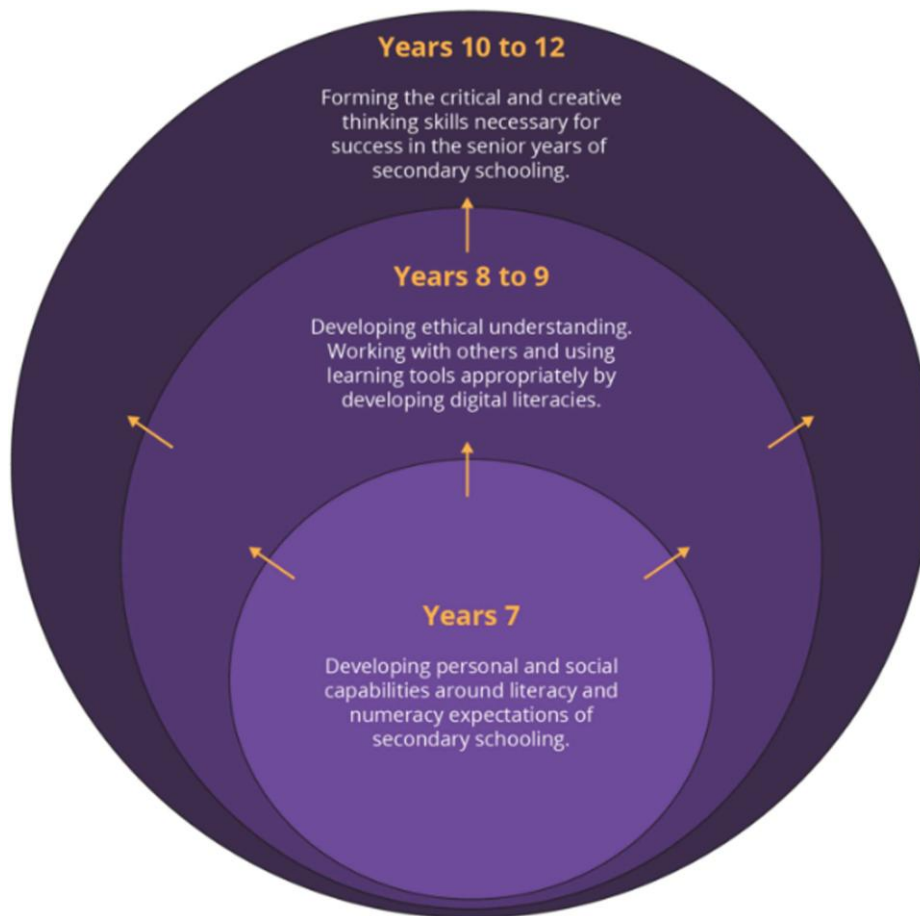
4.2.3. Strategies for incorporating GenAI into assessment

Beyond monitoring, teachers also saw a role for GenAI in assessment. These included “brainstorming” (R3, R4) and testing or developing ideas (R3, R8, R13), “planning” (R6, R7, R12, R19), and critically reviewing AI text (R10, R17). Interestingly, several respondents also commented on how GenAI might be used in their own work, for planning and the creation of exemplar responses. Here again, teachers were observed to take up the role of policy enthusiasts by looking to the potential uses and benefits of the new GenAI tools to make their work both “meaningful and doable” [10].

4.3. Teaching for academic integrity

In centering their response to GenAI in school values, integrity, and “learning as valuable,” the school leaders expressed a need to more clearly define academic integrity in the context of GenAI and

Figure 1
The Glennie School Learning Growth Framework based on the general capabilities.



what it looks like within the classroom. For this to occur, the need for staff and students to possess a deep understanding of the importance of acting honestly and ethically in accordance with the school's values was identified as important, regardless of what technology may be utilized, as noted by a teacher participant:

I explain to students that academic integrity is about students showing their learning to us honestly, that I value their thoughts and understanding, and it helps me to help them to learn further, so it is important that they have integrity in showing their understanding honestly (R7).

This shift needed to occur within and align with the school's existing focus on academic integrity. Teaching for academic integrity has been integrated into teaching programs and professional development for both students and staff over many years. Academic integrity is not only clearly defined within policies but has been supported through student presentations, unit planning, and assessment design. All students in Years 10–12 and teaching staff are required to complete the QCAA Academic Integrity course as part of annual training and professional development. Responding to the particular challenges of GenAI was thus just one part of the school's academic integrity strategy.

In developing this section of the design solution focused on teaching for academic integrity, the team also worked as policy transactors [10] in their role to produce text and artifacts. An important aspect of this included the development of what the team termed the "Learner Growth model." This was a particularly innovative approach developed through the project, using the General

Capabilities⁴ (ACARA) as a framework for a staged and age-appropriate approach to building a culture of academic integrity. Figure 1 provides a graphic overview of the Learning Growth Framework.

By linking the design solution to the General Capabilities from the Australian Curriculum, the team was able to "account for" how their approach aligned with wider policy objectives, while also reflecting the school values of respect, compassion, courage, and integrity. This also permitted the provision of opportunities for student growth and reflection. In order to foster a culture of integrity it was important that all stakeholders were considered, including other schools as a potential audience, and thus by considering and embedding alignment with a broader policy framework, the team worked as "transactors" to do the "accountability work," which "takes up increasing amounts of time and divert[s] time and effort away from that which is reported on [i.e. teaching and learning] [10]. Acknowledging the time required for this accountability, the teachers explained that they have "regular checkpoints and submission of student work" (R12), "one-on-one conversations" (R14), and "checking of student work during class time and homework to ensure I know their 'baseline' ability" (R17).

⁴The General Capabilities are a feature of the Australian Curriculum and represent 21st-century essential skills behaviors and dispositions that are embedded across all learning areas, such as critical and creative thinking, personal and social capability, and literacy and numeracy.

4.4. Overcoming challenges

The rapid rate at which GenAI tools are becoming more sophisticated creates challenges for teachers and schools, and the Phase 1 data revealed staff considerations regarding the equity of AI tools, adequate training for staff, and data and privacy concerns guide the integration of AI tools within the school's teaching and learning framework. Staff responses indicated an awareness that the potential for academic misconduct often arose through broader challenges faced by students as explained by R7, "a root issue that causes academic integrity problems is that many students value good marks more than good learning" and, as noted by R12, the need to "support students in understanding what constitutes their own work and what needs to be referenced." Thus, the development of an approach that might proactively counter these challenges was needed. To address some of these emerging challenges, the design solution was developed to include strategies for teachers to overcome some of the challenges GenAI poses to academic integrity. Support for this was again harnessed from "outsiders," with the university team sharing their work developed for the university context, which the team was able to adapt to suit their context. This served to address some of the concerns raised by teaching staff and helped mitigate the emergence of critics (both internal and external to the school) or staff becoming passive "receivers" of policy, "looking for guidance and direction rather than attempting any creativity" [10]. While survey responses indicated staff wanted "guidance and direction" in the form of professional development and clear policy, their responses also showed the creativity and proactive engagement with the potential of GenAI, more firmly positioning them as "policy enthusiasts."

4.5. Managing misconduct

Glennie espouses an educative rather than punitive approach to managing academic misconduct, and staff responses aligned with this, alongside the recognition that any suspicious misconduct must be managed through clear policies and processes that allow for procedural fairness. R7 summarized staff sentiment:

I would like all students to have an annual course that they must attend to teach them about academic integrity, including the school's policy, how and why to ensure that they maintain their integrity, and practical information such as how and when to reference and what tools are and are not acceptable to use.

This approach is reflective of the school's "learning as valuable" discourse, which pervades both the school leadership narratives and teachers', as policy enthusiasts, emphasis on the need for education around the use of GenAI. What was evident, however, was a lack of certainty about how to navigate the evaluation of potential misconduct and clear processes that could be implemented equitably across the student cohort with suggestions from the teachers, such as "when AI is identified we need a clear policy approach as it is not currently outlined in our policy (R5) and "articulated to students what 'academic penalty' would apply if they are found to be cheating, copying or utilising AI software to write their reports" (R9).

In response to this recognized need, and to evaluate any potential use of GenAI, a GenAI Judgment Tool was developed. The aim of this tool was to allow teachers to assess the likelihood and degree of GenAI by indicating where a student's work sits on a continuum. Criteria included:

- 1) version history – Is there evidence that the task has been progressively developed?
- 2) Turnitin score and pattern

- 3) comparability of work with previous work from the student
- 4) secondary AI detection software
- 5) student's ability to verify knowledge/skills
- 6) student's cognizance of GenAI use⁵

The GenAI Judgment Tool was developed to ensure consistency and procedural fairness for students. It was further decided that the school's formal "Assessment and Academic Integrity Policy" would be provided on the 4th page. The decision to end rather than start with policy again foregrounds the very strongly dominant "learning as valuable" discourse that pervades the majority of the staff's responses and was instrumental in the design solution's collaborative development with the university research team. At this stage of the project, the university members of the research team, as "policy outsiders," were able to play a "key role in the policy process, interpreting policy and in initiating of supporting translation work" [10]. By providing an outsider's view on the school's current and proposed policy, university members of the research team were able to assist school staff in both effective policy language that was understandable to both school and non-school community members and in considering the "process of accommodating policy to practice" [10] based upon their own experience in leading the university's own policy redevelopment and implementation as GenAI emerged.

4.6. Trialing and refining of the design solution

Phase 3 began with the launch of the "design solution," an open-source website: *A Teacher's Guide to Academic Integrity and GenAI*⁶, which houses the newly developed policy, procedures, and support resources for determining the school's specific approach to academic integrity and the incorporation of AI as a learning and teaching tool. The launch occurred at an all-staff meeting, presenting both the website and the process through which it was developed. Staff were invited to then make use of the resource over the course of the coming school term. After using the newly developed website, staff responses to these outcomes and the ways in which they found them supportive to their practice were sought through a final survey, which again incorporated demographic, semantic differential scales, and open-ended responses, with the focus on evaluating the success of the intervention in meeting the needs specified at the commencement of the project.

While the Phase 4 evaluation of the strategy is still underway, ongoing conversations with the school indicate how the process has enhanced student and staff understanding and enactment of academic integrity. By using a design-based approach, the school was able to clearly identify staff needs and priorities and then develop and iterate policy that both responded to these needs while aligning with the school's values. In turn, this enabled the development of a shared understanding across the staff cohort regarding what academic integrity "looks like" both with and without the use of GenAI tools. This highly collaborative process that involved staff then empowered them to provide clear messaging to students about acceptable and unacceptable AI use, framed not around the technology itself, but around the values of having integrity in the work they produce. While staff recognized that students would still potentially make poor decisions about GenAI use at times, the conversations between staff and students are reported to be educatively focused

⁵Managing Academic Misconduct. <https://integrity.unisq.edu.au/managing-academic-misconduct/>

⁶A Teacher's Guide to Academic Integrity and GenAI. <https://integrity.unisq.edu.au/>

rather than punitive. This has emerged from staff's ability to draw upon the shared understanding, built across the school community and rooted in the school value of integrity, of where the line between appropriate and inappropriate use lies.

5. Discussion and Conclusion

This DBR project sought to enact change through a research-informed design solution in response to the emergence of GenAI in one school setting. Partnering with "policy outsiders" [10], the school leaders, as "policy narrators," established a values-based discourse of "learning as valuable," and so the development of the design solution was founded on concepts of integrity rather than compliance or misconduct. This focus on learning also positioned teachers as "policy enthusiasts," who sought to promote "learning as valuable" rather than focusing on grade attainment and saw the potential for GenAI to both aid and, at times, hinder this goal. The school's proactive and collaborative response mitigated the emergence of "policy critics" or teachers becoming "policy receivers." While not all teachers responded to the same extent, several took up a role of "policy models... who embody policy in their practice" [10]. Here, it was not only the formal policy, which appears on the last key page of the design solution/website, but the school's broader ethos that was evident in their practice as staff showed a willingness to learn about, teach about, and experiment creatively with GenAI to explore its "value to learning" (as an enactment of their core shared discourse of learning as valuable), and more importantly, their role in promoting academic integrity. In the process of developing the policy, OECD principles were also adhered to, reflecting well-being, fairness, transparency, robustness, and accountability³.

In practical terms, the project has shown that generic or systemic responses to technological disruptions are largely not considered by schools (beyond compliance with requirements), and instead, responses are grounded in the school's own values. The privileged context in which this study took place must also be acknowledged—one of the key pillars of the school's approach was the use of detection software, which not all schools have access to. However, because of the school's values-based approach, this tool was seen as one part of an educative, rather than punitive, response. The school also made their approach more accessible to others by centering their approach to "Teaching for Academic Integrity" in the Australian Curriculum's General Capabilities. This act of "policy transaction" means the design solution has the potential to be relevant and accessible as all Australian schools are expected to engage with the General Capabilities. It was not the intent of the project team for the design solution or Glennie's policies to become an exemplar, but only an example. For this reason, the school policy is provided for other schools to adopt and adapt to their own contexts, and the design solution is under Creative Commons licensing, allowing other schools to take and rework the content. This broader design decision can be traced back to the staff's belief in learning as valuable and in the recognition that all schools were navigating the advent of GenAI simultaneously.

Finally, the study provides a concrete example of a school taking a proactive approach in addressing challenges while embracing the opportunities that have arisen with the advent of GenAI. A key outcome is the shared awareness of the school community of the importance of continuing to explore new approaches to learning and teaching, specifically in relation to assessment design and the careful reworking of learning objectives and the measurement of student capabilities.

While this study offers a practical example of school-based policy and practice responses to GenAI, we acknowledge a number

of limitations. First, the study was conducted in a well-resourced school with an established digital infrastructure and culture around academic integrity. We further recognize that the use of a focus group setting may have introduced social desirability bias, particularly in the collaborative design process. A future consideration should be the inclusion of strategies to mitigate this potential, perhaps through greater opportunities for anonymous feedback during the consultation process. Finally, the full impact of the design solution, including implementation and long-term effectiveness, is not yet known. While the final design solution is presented as an example of practice, it is not universal, and schools will necessarily need to consider their own context and tailor their approaches to GenAI accordingly. In line with academic integrity principles, we additionally acknowledge that generative AI tools were used to refine the language and structure of this manuscript. All content was critically developed and reviewed by the authors, who affirm its originality and scholarly integrity.

The challenges addressed in this study—academic integrity, ethical use of GenAI, and assessment validity—are not unique to Australian schools. Globally, educators are grappling with how to adapt pedagogical practices and institutional policies to the rapid integration of AI technologies. Recent work by authors in Europe, the Middle East, and Asia also explores the potential educative benefits, risks, and ethical considerations of using AI in education [23–25]. These collectively highlight the need for work such as the work conducted in this project to be undertaken in schools around the world and across educational contexts. This study offers a replicable framework for schools worldwide, particularly those in regional or resource-constrained contexts, to respond proactively and ethically to these disruptions by taking up a values-based approach to their policy design and implementation, centered on fostering both staff and student understanding of ethical GenAI use. The DBR methodology employed in this project is adaptable across diverse educational settings. By grounding the intervention in the local context while aligning with international standards such as the OECD AI Principles, the study demonstrates how schools in different regions can co-create solutions that are both context-sensitive and globally informed.

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Ethical Statement

Ethical clearance to conduct the research was granted by the university ethics committee (approval number: ETH2023-0134).

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

The data that support this work are available upon reasonable request to the corresponding author.

Author Contribution Statement

Katie Burke: Conceptualization, Methodology, Formal Analysis, Investigation, Writing – original draft, Writing – review

& editing, Supervision, Project Administration. **Alison Bedford:** Conceptualization, Methodology, Formal Analysis, Investigation, Writing – original draft, Writing – review & editing, Supervision, Project Administration. **Rian Roux:** Conceptualization, Methodology, Formal Analysis, Investigation, Writing – original draft, Writing – review & editing, Supervision, Project Administration. **Emily Scott:** Conceptualization, Investigation, Writing – original draft. **Jasmine Thomas:** Conceptualization, Methodology, Formal Analysis, Investigation, Writing – review & editing. **Tracy Chamlin:** Conceptualization, Formal Analysis, Investigation, Writing – review & editing.

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Appendix A: Initial all-staff survey

1. How many years have you been teaching in total?
2. How many years have you taught at The Glennie School?
3. Please list the subjects you currently teach, with the year level specific to each subject (e.g., Drama 9). Use a new line for each subject.
4. How do you explain academic integrity to your students? [Open response]
5. To what extent do you believe that your students understand the importance of academic integrity?

- Little to no understanding;
- A basic understanding;
- A strong understanding

Please explain the reason for your answer. [Open response]

6. To what extent do you feel you understand the school's policy and procedures regarding academic integrity?

- Little to no understanding;
- A basic understanding;
- A strong understanding.

Please explain the reason for your answer. [Open response]

7. Thinking now about your senior students: To what extent do you believe that your senior students enact academic integrity consistently?

- Few of my senior students enact academic integrity
- Some of my senior students enact academic integrity
- Most of my senior students enact academic integrity
- I do not teach students in the senior years

Please explain the reason for your answer. [Open response]

8. Thinking now about your junior years classes: To what extent do you believe that your junior students understand the importance of academic integrity?

- Few of my junior students enact academic integrity
- Some of my junior and senior students enact academic integrity
- Most of my junior students enact academic integrity
- I do not teach students in the junior years

Please explain the reason for your answer. [Open response]

9. What key processes do you undertake to check student work for academic integrity? [Open response]

10. What do you identify as your most significant challenges regarding supporting and enacting academic integrity in the school? [Open response]
11. What kind of support or systems would you like in order to feel more confident in supporting and enacting academic integrity in your classes? [Open response]
12. What do you think is an appropriate use of artificial intelligence (large language models such as ChatGPT) in the classroom and assessment? [Open response]
13. Do you have any other concerns or thoughts that you would like to add regarding the issue of academic integrity at The Glennie School? [Open response]