



Research Article

Pedagogical shifts in the age of GenAI: Faculty perspectives from a higher education context

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As Generative AI increasingly shapes the landscape of higher education, this study offers a novel wide-angle lens contribution by centering the underexplored perspectives of university teachers on the pedagogical implications of tools like ChatGPT. Adopting a qualitative descriptive approach, this study employed convenience sampling to target the views of 41 instructors at a leading English-medium university in Kazakhstan. The thematic analysis of their qualitative responses to open-ended survey questions probed for their views on how AI affects their teaching practices. Findings include the potential of AI to enhance both teacher and student productivity, contingent on its use as a complementary, not competing, tool. In contrast, challenges highlighted a lack of coherent institutional policies, along with concerns about the inaccuracy and opacity of generative models. Such issues, teachers reported, may heighten student temptation to misuse AI, resulting in diminished learning and increased teacher workload. The study offers original theoretical insights into AI integration in higher education from a teacher's standpoint and provides actionable recommendations for institutional engagement, including improved assessment design and targeted AI training for faculty and students.

Keywords: Artificial intelligence in education, educational technology, higher education, qualitative research, teacher education

1. Introduction

AI as a broad concept, often associated with distant Science Fiction (Chan & Colloton, 2024), is far from new and has long been covered in the literature from an engineering perspective, through the detailing of algorithm creation or data acquisition for instance, with the aim of making this information more accessible to non-specialist audiences (Xia et al., 2022). In terms of its applicability to higher education [HE], the focus is sometimes on the automation of administrative tasks, such as using data analytics to personalize emails or to automate course scheduling, rather than on more direct teaching and learning elements (O'Dea, & O'Dea, 2023), such as brainstorming facilitation in the classroom or personalized feedback on written assignments. This paper's focus fast forwards right up to early 2023 when a company called Open AI released the model known as ChatGPT, which was followed closely by rivals such as Google's Gemini and Microsoft's CoPilot. What makes the release of these large language models [LLMs] a seminal moment for HE is less to do with the treasure trove of information that they provide access to, and more centered on the chatbots' capability to communicate this information, or even produce original content, via interacting with users in a seemingly human-like manner (Crawford et al., 2023). The definition of generative artificial intelligence [GenAI] adopted by this paper draws inspiration from Lim et al.'s (2023) "a technology that (i) leverages deep learning models to (ii) generate human-like content (e.g., images, words) in response to (iii) complex and varied prompts (e.g., languages, instructions, questions)" (p.2). The two adaptations being firstly the aforementioned exclusion of any content that is not text, such as images, due to the temporal scope limitations of this investigation, and secondly the inclusion of simple, rather than exclusively complex, prompts, such as "proofread this sentence for linguistic errors" or "provide examples of this concept," in order to more

accurately encapsulate the variations in prompt complexity that represent how GenAI can be used for the purposes of teaching and learning in today's landscape.

Teaching and learning for the purposes of this investigation are defined according to Limboro and Kaugi's (2019) explanation: "[teaching] as engagement with learners to enable their understanding and application of knowledge, concepts and processes while learning is the acquisition of knowledge or skills through study, experience, or being taught" (p.282). This teaching definition applies to this study from the perspective of the foundation program instructors teaching young adults the skills they need to bridge their journey from school to university studies, namely through the subjects of English for Academic Purposes [EAP], Leadership and Maths. The learning definition centers on the student-centered outcomes of the foundation program in focus, but is amplified to include a professional development [PD] context in which instructors engage in career-oriented professional learning. The prominent role of teachers as GenAI gatekeepers in young adult contexts (Passey et al., 2024) such as the foundation program used as the data collection site for this investigation, makes the questioning of the extent to which GenAI should be integrated, or indeed regulated, highly relevant. This also underlines the broad-based international applicability of this study to a wide spectrum of HE stakeholders outside of the institution in focus. The implications of this study therefore extend far outside of Kazakhstan to universities and colleges across different countries that host international student and faculty bases in an English instruction environment.

The aim is *not* to obtain an exhaustive list of ways in which GenAI can be perceived by teachers, but instead to make an impactful contribution to the research community by shedding further light into existing studies on GenAI's potential benefits and challenges in a university teaching and learning setting, such as Li et al.'s (2025) insight into learner motivation. This study's holistic (bird's eye) approach towards GenAI's impact on HE seeks to provide balanced conclusions that factor both sides of the coin.

1.2 Research Questions

This study's overarching aim is guided by two interrelated research questions that seek to contribute meaningfully to the ongoing discourse on the integration of Generative AI (GenAI) in learning and teaching from the perspective of higher education (HE) teachers. The overarching question is: To what extent should GenAI be integrated into higher education teaching and learning practices? Within this scope, the following research questions were addressed.

RQ 1) To what extent do teachers perceive GenAI as beneficial for enhancing teaching and learning experiences in HE?

RQ 2) To what extent do teachers perceive GenAI as challenging for enhancing teaching and learning experiences in HE?

2. Literature Review

The first subsection explores GenAI in the context of HE in a broad context, before narrowing down to a focus on teachers in the second subsection.

2.1. Generative AI in Higher Education

The recent breakneck diffusion in GenAI related publications (Peres et al., 2023), initially triggered by the popularization of the ChatGPT LLM in early 2023, sometimes centers on the concept of GenAI in isolation from teaching and learning. That is to say, the focus is more on the description of this new phenomenon, often from a computer Science perspective (O'Dea, & O'Dea, 2023), and infused with personal anecdotes to produce shock value on what this text generative AI bot is seemingly capable of (Lim et al., 2023). This creates a relative literature gap in the form of investigations that explore GenAI's strategic integration with teaching and learning. Another notable gap emerges from the seeming fixation on a single platform, namely in the form of ChatGPT exclusive studies such as Qadir's (2023) paper on the application of this particular model on engineering education or Rasul et al.'s (2023) investigation into the future research implications

of ChatGPT specifically, as opposed to a broader investigation of LLM's as a wider concept. While ChatGPT's initial monopolization of GenAI literature is understandable given its early arrival to the scene in late 2022, there are now a number of competitive rivals, including DeepSeek that was launched in early 2023. These alternatives have only recently started to be considered, for example through Chan's (2023) paper on AI policy frameworks. Even more recent examples of new challengers include Perplexity AI which accompanies its responses with citations, and there will undoubtedly be more in the near future.

While the detailed intricacies of different AI models lie outside the scope of this paper, it is nonetheless important to establish a clear, if somewhat basic, understanding of the target concept: text generative AI. Its distinguishing feature centers on its capability in using data to produce original content in a human-like manner (Chan & Colloton, 2024). GenAI's sheer potency, in terms of providing detailed information or even problem-solving, combined with its user-friendly interactivity (Perera & Lankathilake, 2023) and ability to produce new content altogether (Lim et al., 2023) constitutes a winning formula that distinguishes it from a generic search engine and explains its rapid recent diffusion across universities. It is difficult to overstate the importance of accessibility in models like ChatGPT given their ability to learn not just new information, but also language patterns and a conversational style (Boubker, 2024) that makes it inviting for non-specialist users to engage with. Asio and Soriano (2025) cite the Philippines as an example of a developing nation that seeks to benefit from the equity and social justice benefits that AI promises to deliver in HE. The everyday use of AI is no longer exclusively available to data scientists or algorithmic specialists, but also to teachers and students across different HE subjects.

2.2. GenAI for Teachers

Lim et al. (2023) highlight the unflattering technophobic stereotypes attributed to educators who are "often accused as conservative and resistant to change" (p.2) as a partial explanation for some of the initial resistance to GenAI voiced by the university teaching community. To a lesser extent, this opposition could be attributed to some teachers' low level of digital competence given the varying levels of technological adaptation by different faculty members based on their attitudes and experiences (Acuyo, 2022). This argument is somewhat weakened, however, by the intuitiveness of most GenAI platforms' interfaces and the conversational style in which these AI chatbots respond to user prompts (O'Dea, & O'Dea, 2023). Platforms like ChatGPT emphasize accessibility and equity, not only in terms of usability but also by removing cost barriers via free versions of their platforms (Lim et al., 2023). The digital competence and accessibility argument is further watered down when one reflects on the recent COVID-19 emergency remote teaching [ERT] period (Acuyo Cespedes, 2025). This significantly catalyzed the digital leveling-up of teachers who had struggled with technology in the pre-pandemic period (Acuyo Cespedes & Lee, 2023; Asio & Soriano, 2025). That is to say, the HE status quo at the time of writing this paper in mid 2024, whereby GenAI is perceived as a simple to operate user-centric platform (Farrokhnia et al., 2023) compounded by a teacher population that is generally more technology-competent than they had been in recent previous years (Acuyo Cespedes, 2024) somewhat diminishes the supposition that many teachers are against GenAI on the grounds of their own incapability to comprehend or operate it. A more convincing argument centers on the apprehension that many educators perceive as GenAI gatekeepers (Passey et al., 2024) in their uncertainty as to whether work that is submitted by their students is actually their own or whether in fact they have used GenAI to engineer what can be considered as GenAI facilitated plagiarism (Chan & Colloton, 2024; Gao et al., 2023). This is particularly applicable to research intensive universities (Lim et al., 2023), such as the one at the focus of this investigation, and is explored in the subsequent subsection.

In terms of classroom teaching support, many articles refer to this in somewhat superficial and generic description. For instance, Xia et al.'s (2022) literature review refers ambiguously to the use of AI to increase the efficacy of teaching material distribution and classroom management, but stops short of providing specific examples or delving into further detail. An apparent example could relate to GenAI's vast knowledge databases that are in a constant state of growth on account

of its machine learning [ML] characteristic. This vast data trove alone would not distinguish it from a search engine, such as Alphabet's Google, however Farrokhnia et al. (2023) draw attention to GenAI's ability to summarize large swathes of information in a timely manner. This could be applied to Mishra and Koehler's (2006) TPACK model of teacher competencies: Technology, Pedagogy and Content Knowledge. In a classroom teaching setting, teachers could put GenAI to pedagogic use by reducing the amount of time it takes students to access user-friendly (summarized) information in real time, or even by identifying relevant lesson material prior to the lesson itself for instance (Farrokhnia et al., 2023). Given the number of university teachers involved in research related to what they teach, one could convincingly argue that the implementation of GenAI to support these classroom related investigations indirectly ends up benefiting their (better-informed) teaching. Chan and Hu (2023) for instance, detail a number of ways in which a model like ChatGPT could aid research, including the synthesis of large amounts of data and literature. Nevertheless, issues including the lack of transparency and accuracy in relation to some of the information provided by GenAI models (Peres et al., 2023) means that it is unlikely to be a research "game changer" in the near term.

3. Methodology

3.1. Research Design

This investigation adopted a qualitative descriptive approach (qualitative survey design) (Hall & Liebenberg, 2024) with the aim of better-understanding the target phenomenon from the perspective of direct stakeholders (Hatch, 2023; Mertens, 2020); in this case teachers' views of the impact of GenAI on teaching and learning. The complexity and subjectivity of the target phenomenon calls for this qualitative design, which would be difficult to make sense of using quantitative data alone. The open-ended survey questions provided participants with a platform through which they were able to self-articulate their own views with regards to GenAI's pedagogical implications. This is why qualitative survey analysis was adopted as a wide-angle lens (Braun et al., 2020) through which these intricate and diverse perspectives could be analyzed.

3.2. Participants

The online survey data was collected over August and September 2024 from an autonomous English-instruction research university in Kazakhstan. The specific research site within this institution was the foundation program, which delivers EAP, Leadership and Mathematics subjects to approximately 600 young adults aged between 17 and 20. The 50 Teaching Fellows responsible for delivering these subjects were the focal point of this investigation. A convenience sampling method eventually resulted in a total of 41 voluntary teacher participants chosen specifically from this foundation program. This sample variety underlines the wide applicability of the findings to global audiences far outside of the specific Kazakh research site. While the individually-assigned participant codes have not been shared to help protect anonymity within the research site, Table 1 provides an overview.

3.3. Data Collection

A single, ethics-board approved, cross-sectional survey was employed as the data collection method. This paper targeted the qualitative survey responses in line with the adopted qualitative descriptive research design (Hall & Liebenberg, 2024). By taking a deep dive into teachers' qualitative views (Mertens, 2020), this investigation complements and adds depth to the aforementioned related studies, which focussed either exclusively on students' qualitative perspectives or on the quantitative responses from both teachers and students. Informed by a review of current literature related to GenAI in teaching and learning scenarios, the survey was ultimately structured into four sections. The first section asked for general information, such as the participant's age and teaching experience. The second section asked questions about the participant's previous experience with GenAI, such as how often they use GenAI or their self-

Table 1
Sample Overview

<i>Charasteristics</i>	<i>N</i>
Gender	
Male	17
Female	24
Age	
22 to 35 years old	11
36 to 45 years old	10
45 or above years old	20
Teaching Experience	
Less than 5 years experience	2
5 to 10 years experience	10
More than 10 years experience	29
Highest Qualification	
Masters	37
Doctorate	4
Educational Background	
Linguistics	18
Pedagogy	15
Other	8

declared level of familiarity with it. The third section asked questions related to GenAI use inside the classroom, such as brainstorming or proof-reading. The final section asked questions related to external classroom settings, such as generating student reports or preparing lessons. It contained a total of 14 open-ended questions in follow-up to the Likert Scale quantitative questions and was estimated to take between 30 and 50 minutes to complete. For example, participants were asked to describe their overall sentiment in relation to the impact of GenAI in the classroom.

3.4. Data Analysis

In a bid to uncover nuances and depth related to the target phenomenon that cannot be defined numerically (Taherdoost, 2022), the qualitative data derived from the responses to the open survey questions were analyzed thematically by the researcher. A collegial blind peer reviewer subsequently followed up on the principal investigator's analysis to mitigate potential researcher biases (Hatch, 2023) and ultimately uphold the validity of the final themes. Via a series of multiple iterations that aimed to extract patterns and insights (Creswell & Poth, 2018) relevant to the aforementioned RQs, the researcher was able to tease out themes related to teacher perceptions of GenAI in a teaching and learning landscape. The inductive approach to analysis meant that these data trends arose somewhat unexpectedly from the data itself, rather than being pre-determined by the researcher (Chan, 2023; Mertens, 2020). The initial themes were fortified by supporting survey excerpts and subsequently revisited multiple times in a bid to either strengthen them via greater excerpt corroboration, or modification of the theme accordingly into the final version of consolidated themes seen in the subsequent Findings section.

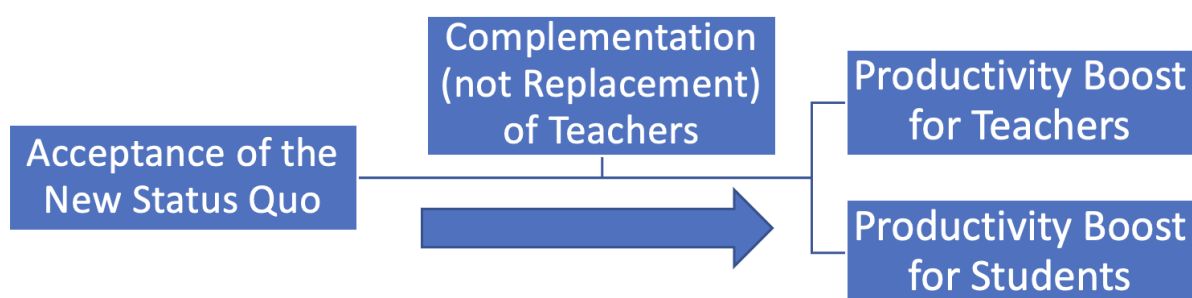
4. Findings

The themes below represent teachers' perceptions of GenAI for teaching and learning based on their open-ended responses to the aforementioned survey. The first subsection captures themes related to GenAI's potential benefits (RQ1) in Figure 1 and the second subsection centers on the challenges (RQ2) in Figure 2. Each individual theme is subsequently unpacked and supported with excerpts from the survey.

4.1. Benefits

The initial left handside “Acceptance of the new Status Quo” theme in Figure 1 represents the initial stage in how many teachers perceive the benefits of GenAI. If and when teachers acknowledge this increasing GenAI presence, they can then access the benefits represented in the right handside themes of “Productivity Boost for Teachers” and “Productivity Boost for Students.” The “Complementation (Not Replacement) of Teachers” theme in the center of the figure above the arrow represents a potential catalyst to reaching these benefits. If teachers learn to work with (not against) GenAI, they are more likely to unlock the aforementioned productivity boost benefits sooner.

Figure 1
Benefits



4.1.1. Acceptance of the new status quo

Many of the surveyed teachers made explicit reference to the expected permanence and even intensification of GenAI's presence in their work contexts. Teachers perceive a sense of inevitability as to GenAI's impact on their teaching and learning, rather than pondering whether it is or it is not a phenomenon that is in fact here to stay. Their perception of GenAI is one of a significant paradigm shift within their educational context, which is outside of their control. One participant noted, “AI is not going away and teachers (and students) will have to deal with that...” (P32), while another stated bluntly, “We cannot police this [AI use]” (P2). These perspectives reflect a shared recognition of GenAI as a significant paradigm shift in education—one that is largely outside of their control. Some teachers even linked their certainty of GenAI as the “new normal” in HE to a sense of urgency in organizing relevant professional development in response to this. They stress the need for the proactive up-skilling of themselves as teachers and also their students.

It is clearly here to stay, so both students and faculty need much more training on how to best utilize what could be either very beneficial, or to avoid what could be very detrimental. (P3)

4.1.2. Complementation (not replacement) of teachers

This perception of the need to work with, as opposed to against, GenAI is very much connected to the previous theme. By recognizing the prominence of GenAI in the university environment early on, many teachers feel that they can adapt to co-exist in partnership with this new tool. This is framed in the context of universities needing to raise awareness of GenAI's potential, as well as pitfalls, to both teachers and students alike.

If students use AI mindfully, keeping in mind the goal of learning, and use AI to assist rather than do for them, there is less of an issue with using GenAI in the classroom (P40)

Used with care and under the supervision of the teacher, it [AI] can be quite a useful tool (P32)

Rather than trying to compete with GenAI, some teachers expressed their confidence in terms of what the tool can, and more importantly cannot, replace. This view positions GenAI as an aid at the disposal of the teacher, as opposed to a wider threat or even replacement of the teaching

profession altogether. These teachers report a sense of confidence that certain elements of their job will never be altogether replaced by GenAI.

The human element in teaching - empathy, adaptability, and the ability to inspire - is irreplaceable, and we should strive to balance technology with these essential qualities (P18)

4.1.3. Productivity boost for teachers

Considering the previous two themes as prerequisites by assuming that teachers have not only accepted GenAI but also started considering ways in which to exploit this tool for their benefit, teachers expressed excitement as to how models like ChatGPT can be used to streamline some of their day-to-day tasks. They perceive GenAI as a smart tool for optimization that will streamline certain aspects of their role. As one teacher remarked, "It [AI] can be a very good productivity booster [for teachers]" (P1), while another affirmed, "I think it [AI] is an amazing innovation! It will increase efficiency" (P6). These responses highlight a growing optimism about GenAI's potential to improve productivity in educational settings.

Many teachers agreed that GenAI would be particularly useful for tasks of a more simple and repetitive nature. This applies to items like quiz grading for instance. This contrasts with more complex tasks that require nuance, such as tailoring a lesson plan to their specific group of learners for example. This latter type of task is still perceived as needing to be carried out by the teacher.

There are some repetitive, mundane tasks associated with teaching. This [AI] could alleviate some of that. (P32)

There are some things AI can do sufficiently well at a practical level and that frees time for specialists (teachers, admin, etc.) to be better at their specialties. (P14)

The surveyed teachers were, on the whole, not very specific in terms of providing examples of how GenAI could boost their productivity. Some teachers, however, were explicit in their references to lesson preparation as a specific subcontext to which GenAI would lend itself to. They identified this task as typically burdensome and therefore expressed excitement at the potential for GenAI to assist in its delivery. As one teacher noted, "Lesson planning in particular is tedious and time consuming, AI could boost productivity" (P41).

4.1.4. Productivity boost for students

Aside from optimizing their own workflow, teachers also perceive GenAI to potentially benefit their students' productivity. Much in the same way that many of the surveyed teachers attached this perception of increased efficiency to lesson preparation, they also linked their students' perceived benefit to a single specific scenario: creativity. Teachers identify GenAI as a useful tool for helping their students jump off the diving block in terms of starting coursework, whether it is essay writing, presentation preparation or another larger task. As one participant asserted, "It [AI] can be a good way of generating ideas quickly, or for giving a student who is struggling with ideas a boost" (P41). Another noted, "It [AI] can be helpful, as some students struggle with finding topics [for essays]" (P11). These insights reflect a growing belief in GenAI's potential to support students in the early stages of the creative process.

This use of GenAI does not only apply to helping students start a task, but also extends to helping those who become stuck along the way. For instance, GenAI is perceived to help students who run out of argumentation ideas midway through writing an essay. GenAI is thus perceived as a useful crutch for responding to a creativity impasse whether this comes at the beginning or in the midst of a task. It presents a range of ideas to unblock a students' path to making progress on a written assignment. One of the participants remarked that, "It [AI] can invigorate and motivate a student who is stuck with their research for a counter argument or rebuttal (P18).

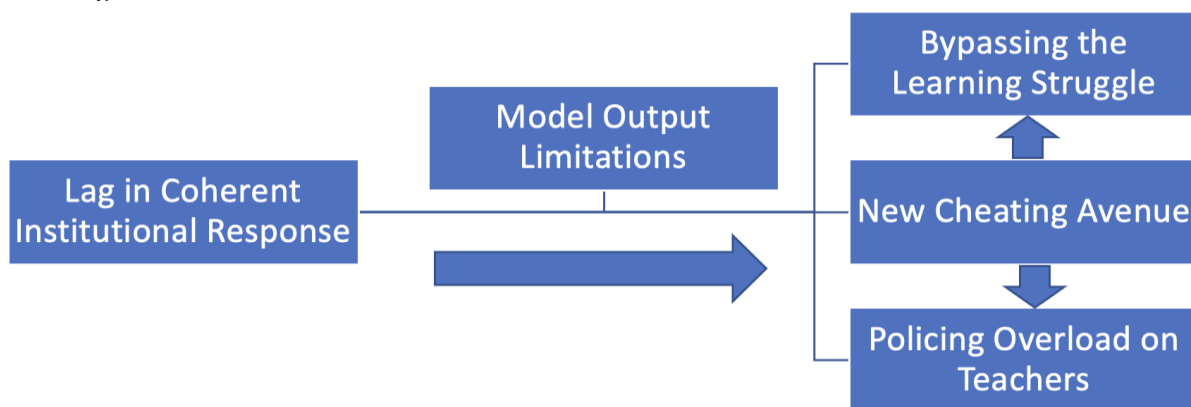
Lastly, the lack of threat or even novelty posed by GenAI can be noted in some teachers' responses. They perceive models like ChatGPT as simply replacing physical peers with whom a student can co-brainstorm ideas. They explain that conducting this peer 'discussion' with a GenAI tool (instead of a classmate) is a perfectly permissible part of the academic writing process. As P7

noted, “I view GenAI similar to a friend you may bounce ideas off of. I think it is fine to brainstorm with a friend.”

4.2. Challenges

The first theme on the left hand side of Figure 2, “Lag in Coherent Institutional Response”, represents what many teachers perceive as the initial source of the GenAI-related challenges that they have faced. The arrow in the center of the figure signifies the subsequent effect caused by this poor response in the form of student use of GenAI as a “New Cheating Avenue.” This creation of greater academic dishonesty opportunities in turn leads to two significant challenges represented by the short arrows pointing upward and downward. The “Bypassing the Learning Struggle” theme captures the skill erosion challenge that teachers perceive GenAI to have on their students. The “Policing Overload on Teachers” theme refers to the burden laid on the teachers themselves as they scramble to regulate AI use. The “Model Output Limitations” theme in the center refers to the added risks of bias and hallucinations inherent within the GenAI models themselves. The long arrow below represents this theme as potentially intensifying the aforementioned challenges. This is because student reliance on *flawed* GenAI output can ultimately make them even more reliant on using it dishonestly as their learning deteriorates. This increased GenAI dependence can in turn make the policing burden on teachers even heavier.

Figure 2
Challenges



4.2.1. Lag in coherent institutional response

There is a wide consensus among the surveyed teachers that GenAI’s relative infancy in the context of HE means that universities have not yet had the opportunity to adequately respond to it. Some teachers therefore feel that tools like ChatGPT have simply not been in mainstream use long enough. This means that teachers, students or indeed university decision makers have not yet had the opportunity to update their policies and ensure faculty comprehension of this new information. As one participant observed, “Right now we are still not focused on policy or critical understanding of when and how these tools should be used” (P1). Another echoed this concern, stating, “The profession has not yet managed to develop strategies for proper use. Currently teachers and students are confused” (P39). These perspectives highlight the pressing need for institutional guidance and professional development to support effective GenAI integration.

One specific area that stands out in the lagging institutional response to GenAI is assessment. Many of the surveyed teachers expressed a lack of confidence in the relevance and adequacy of existing assessment-related tools and documentation, such as grading rubrics and exam guidelines. In particular, assessment specifications and evaluation criteria were frequently cited as documents in urgent need of revision to reflect the realities of GenAI-assisted learning. As P26 noted, “If it is used for that [language translation] then assessment rubrics should not be assessing grammatical accuracy”. The same participant also raised a broader concern, stating, “The assessment would no longer measure student knowledge of target content, the assessment would

measure student proficiency in using AI". These reflections underscore the need to critically reconsider how learning is evaluated in the age of GenAI.

4.2.2. *Model output limitations*

A second source of blame for GenAI's challenges, albeit to a lesser extent than the previous theme, is the actual output limitation of a model like ChatGPT in its current stage of development. Some teachers attribute these output constraints to the relatively early stages in which they perceive GenAI technology to still be in. They question the overall effectiveness of tools like ChatGPT. As P31 noted, "AI is a misnomer. It is neither artificial nor intelligent. It is a synthesis tool". Another observed, "AI is notoriously bad at offering new, innovative and creative ideas and will probably continue to struggle in that area" (P18). These reflections suggest a cautious stance toward overestimating GenAI's capabilities, particularly in creative and higher-order thinking tasks.

Some teachers express their frustration at GenAI as a tool that is presented to help teachers, when in fact it can at times prove to be so limited that teachers find themselves having to do more work than they faced in the pre-GenAI era. There is a perceived element of "false advertising" among these teachers, as they perceive that tools like ChatGPT have underperformed in relation to the hype that surrounds them.

Teachers can write a better student report than AI, as the teacher has spent a year with the student. (P14)

I have found the AI-generated texts to be too polished and superfluous, and I have had to rewrite parts of the texts (P12)

Other teachers are reportedly more concerned about the opacity of GenAI's responses, since models like ChatGPT do not, at the time of writing, cite sources of information. This can carry various risks, including non-signalled biases, which teachers perceive their students to be particularly vulnerable to. These teachers are thus concerned that GenAI has the potential to make their students regress as critical thinkers. This can act as a catalyst that increases student dependence on GenAI tools, as their own learning capabilities become diminished.

Currently, because they are trained on what they are fed, AI models can provide inaccurate or biased information. Therefore it might be risky for students to use it for certain things. (P32)

We must ask ourselves what's going on with the students who readily depend on a nascent technology that produces such dubious results. (P22)

4.2.3. *New cheating avenue*

As a combined result of the previous two themes, teachers perceive GenAI as a tool that is open to abuse by university students. The aforementioned belief that institutions have not yet updated their assessment in response to GenAI, alongside the tool's reported opacity and limitations for more complex tasks, results in a scenario whereby students are increasingly tempted to use GenAI as a dishonest shortcut for completing graded work. Teachers perceive a magnified sense of short-cut temptation that GenAI entices students with.

The student just sticks the passage into ChatGPT and claims that output as their own work. (P13)

Students write their essays with the AI usage, they do not want to read the article by themselves, they do not want to enhance their writing skills (P8)

Not all teachers attribute this magnified temptation to cheat using tools like ChatGPT as being the fault of their students. Some believe that, much in the same way that universities have not acclimatized to the new GenAI status quo, students too need time to adjust to this new factor. Their young age and relative immaturity puts them at perceivably higher risk than other stakeholders.

Students need to come to understand that AI isn't any different than asking a friend or family member to do the work on an assessment. (P15)

4.2.4. *Bypassing the learning struggle*

As a result of GenAI's temptation as a corner-cutting tool for students as described in the previous theme, teachers believe that students are inadvertently cheating themselves out of the skills development that they would otherwise benefit from as part of their overall tertiary education experience. Critical thinking and creativity are highlighted as being most at risk of erosion. The implication is these skills will 'atrophy' as students increasingly offload them to GenAI.

As a result of simply copying and pasting AI generated text, students are not engaging with sources critically. As such there is little skill development (P9)

The risk of diminishing critical thinking and creativity if not used thoughtfully. (P5)

Language learning is another potential example of a skill that is at risk of underdevelopment, albeit less so than critical thinking. Teachers worry about the potential for models like ChatGPT being used to conveniently automate language translation for students to the degree whereby some students would no longer grapple with (and subsequently learn) English as a second language. Teachers perceive the loss of this learning struggle as ultimately detrimental for their students' learning.

They are using it to save themselves from doing any writing. But it is by actually writing that they learn how to think in English. (P38)

The struggle with expressing their ideas in a new language has long term benefits for acquisition. (P41)

Some teachers' anxieties surrounding the missed learning opportunities associated with GenAI extend to the future of their students' development. Some worry that, despite their students perhaps scraping over the finishing line by using GenAI as a crutch in their current year, this over-reliance on the tool may then inhibit them from reaching their long-term potential as university students. This is presented as a predictable consequence of GenAI addiction. As P30 noted, "Skills cannot be outsourced to AI and dependency built up." In a similar manner, P41 asserted that "The student may not be aware of the learning and cognitive processes of which they were robbed."

4.2.5. *Policing overload on teachers*

Far from only negatively impacting students, teachers also perceive that they themselves face challenges related to the previously described theme of GenAI's potential misuse for academic dishonesty. This centers around the added detective role that teachers feel they have been forced to adopt. This is balanced alongside an already heavy workload that they perceive their teacher role to entail: materials developer, assessor, advisor and so forth. They feel that an increasing amount of their time is being dedicated to searching for GenAI misconduct in their students' work, and that this comes at the expense of their other duties.

Teachers feel overwhelmed by the problems of trying to work out who is using it and who isn't. (P25)

The detection tools currently available are not (yet) reliable enough. If not detected/able to be proved, this is unfair on the students who do not use it to produce text for assignments. (P29)

Aside from the ethical rationale for needing to distinguish students who cheat using GenAI versus those who do not, some teachers express frustration. They perceive there to be an imbalance between the tool's potential to save their student's time while not saving themselves as teachers much time; and in fact sometimes adding to their teacher workload. This is partly connected to a sense of moral high ground that teachers feel is part of their role-modeling responsibility to their students. As one teacher stated, "Teachers should hold themselves to the same standards as they hold students [by not using AI to help them]" (P28). Another reflected on the broader struggle, noting, "Teachers are grappling with AI and its affordance..." (P21). These comments reveal the complex emotional and ethical terrain teachers must navigate as they adapt to GenAI's growing presence in education.

5. Discussion

The initial themes in both Figure 1 (faculty recognition) and Figure 2 (lackluster institutional response), relate to the speed (or lack of) in which GenAI is widely adopted. Roger's (2003) Diffusion of Innovations theory highlights the challenge universities face by predicting that most stakeholders are likely to adopt new technologies later rather than earlier. Of the multiple factors that influence the speed of this adoption process, GenAI's relative usability on account of its aforementioned conversational style, is likely to encourage its early adoption (Boubker, 2024). On a similarly positive note, institutions that are able to effectively communicate GenAI's relative advantage and compatibility with what they teach to their faculty too are likely to influence earlier buy-in. This can be achieved through the broad awareness-raising initiatives and PD described in the subsequent paragraphs. Re et al. (2024) present the interactive example of a board game created specifically to raise balanced awareness of the potential pedagogical uses of AI tools while being mindful of challenges such as bias. This showcases the wide range of awareness-raising instruments that can be used to acclimatize teachers to the growing ubiquity of GenAI in HE. The integration of AI in higher education is not only inevitable but also essential, as students increasingly interact with intelligent systems that influence their learning processes, assessments, and career readiness (Asio & Gadia, 2024).

Multiple themes can be related to GenAI's assessment implications: the productivity boost for both students and teachers in Figure 1, as well as the student learning loss and teacher overload that stem from the tool's cheating potential in Figure 2. These benefits and challenges are largely dependent on programs establishing clear guidelines and rules for each assessment from the outset. Vague references to GenAI, such as "responsible use only" or "AI use may be penalized at the teacher's discretion" do not suffice. Instead, institutions must be specific and proactive in their signaling of the implications of GenAI on each assessment, including potential consequences for flouting these rules (Chan, 2023). Furze et al. (2024) offers a specific example of a scaling model that can be used to assign an explicit level of permitted GenAI use to each assessment vehicle. While models such as this initially add to the workload, a university context in which online tools are acting as catalysts for plagiarism's upward trend (Crawford et al., 2023) means that institutions need to take proactive steps.

A final common thread that ties multiple themes together, including the productivity boosts presented in Figure 1 and dealing with the challenges caused by academic dishonesty in Figure 2, is the notion of an updated PD program that specifically targets GenAI (Chan, 2023). The prominence of tools like ChatGPT means that they should constitute their own subcategory of the "Technological Knowledge" highlighted in Mishra and Koehler's (2006) TPACK model, alongside pedagogical and content knowledge. In addition to targeted teacher training, enhanced student training in the form of tailoring lesson material to target GenAI can, in the long-term, benefit teachers and students alike. A heightened awareness of the learning loss associated with a dependency on tools like ChatGPT has the potential to motivate learners to use GenAI for learning support, rather than cognitive offloading (Gerlich, 2025). By doing much of the 'heavy lifting' themselves, in terms of argumentation or critical thinking for example, students are likely to restrict their use of GenAI. This limitation of AI-use to circumvent more menial tasks, such as addressing "a lack of references, or commas that are in the wrong place" (Crawford et al., 2023, p.8) for instance, will consequently divert students' attention to more cognitively challenging tasks. This compromise of using AI sparingly for certain subtasks is likely to reduce student stress (Crawford et al., 2023), as they both save time on drudgery and also discard concerns over academic misconduct accusations. This, in turn, allows teachers to pivot their attention away from policing misconduct and back towards providing feedback.

6. Conclusion

This study contributes new empirical and theoretical insight into how university instructors perceive and respond to GenAI's disruptive potential, particularly in a non-Western,

underrepresented educational context. By centering the nuanced perspectives of teachers (often sidelined in student-centric GenAI discourse) it advances our understanding of the institutional, pedagogical, and ethical tensions that emerge in adapting teaching and assessment practices. Practically, the findings support three actionable pathways for institutions navigating the integration of GenAI: increasing institutional visibility, embedding assessment transparency through clear usage policies, and updating professional development to include AI literacy for both staff and students. These measures not only mitigate risks associated with academic integrity but also unlock GenAI's value as a productivity enhancer when used critically and ethically. AI's design and deployment in educational settings should reflect culturally responsive and ethically grounded principles to ensure equity and inclusion (Mori, 2023). Rather than offering prescriptive fixes, this study lays the groundwork for more context-sensitive approaches to GenAI in higher education, encouraging institutions globally to move beyond reactive stances and engage in deliberate, pedagogically informed adaptation.

Based on the findings of this investigation, several key recommendations are proposed. First, institutional visibility of GenAI should be increased through multiple channels, including university websites, orientation materials for both students and teachers, and official course curriculum documents. These platforms should acknowledge the potential impact of tools like ChatGPT within academic programs and offer clear guidelines for their use.

Second, there should be greater transparency in assessment practices. All existing assessment formats—whether essays, group presentations, or other coursework—should be reviewed and clearly labeled to indicate the permitted level of GenAI use, if any. Updated assessment briefs, along with a detailed explanation of the adopted GenAI usage model, should be provided to both teachers and students at the start of each course to ensure shared understanding and compliance.

Finally, professional development programs must be updated to include GenAI as a core area alongside traditional teacher training topics such as materials development and assessment grading. Similarly, student-facing lesson content should be revised to incorporate GenAI-specific skills, such as effective model prompting. These formal training initiatives should be reinforced by an institutional push to foster peer-to-peer collaboration and knowledge sharing around GenAI integration.

7. Limitations and Future Research

Despite the internationally applicable contributions described above, this investigation was somewhat limited by its single cross-sectional survey data collection tool. While this instrument facilitated a sizable sample of participants in relation to the researcher's temporal constraints, open-ended survey questions may not capture the same level of detail and nuance that other qualitative tools have the potential to. Future investigations targeting GenAI in HE should address these limitations by supplementing open-ended survey questions with follow-up focus group discussions or, time-permitting, even individual interviews.

Data availability: The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Declaration of interest: No conflict of interest is declared by author.

Ethics statement: The sole author declares that all ethical procedures have been adhered to. The data from the investigation is held securely by the author and can be made available subject to reasonable request due to participant privacy (anonymity) considerations.

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References

- Acuyo Cespedes, A. (2024). Moving on from emergency-remote-teaching: University teachers' perceived challenges of networked learning. *Computers and Education Open*, 7, 100217. <https://doi.org/10.1016/j.caeo.2024.100217>
- Acuyo Cespedes, A. (2025). Teachers in transition: A qualitative exploration into the impact of emergency remote teaching on professional development. *International Journal of Educational Research*, 130, 102548. <https://doi.org/10.1016/j.ijer.2025.102548>
- Acuyo Cespedes, A., & Lee, K. (2023). University teachers' perceptions of networked learning during the emergency-remote-teaching period: A phenomenographically-informed inquiry. In N. B. Dohn, J. Jaldemark, L. M. Öberg, M. Håkansson Lindqvist, T. Ryberg, & M. de Laat (Eds.), *Sustainable networked learning* (pp. 207–222). Springer. https://doi.org/10.1007/978-3-031-42718-3_14
- Acuyo, A. (2022). Reviewing the literature on professional development for higher education tutors in the work-from-home era: Is it time to reconsider the integration of social media? *Education and Information Technologies*, 27(1), 89–113. <https://doi.org/10.1007/s10639-021-10603-2>
- Asio, J. M. & Soriano, I. D. (2025). The state of artificial intelligence (AI) use in higher education institutions (HEIs) in the Philippines. In F. Mobo (Ed.), *Impacts of AI on students and teachers in education 5.0* (pp. 523–552). IGI Global. <https://doi.org/10.4018/979-8-3693-8191-5.ch019>
- Asio, J. M. R., & Gadia, E. D. (2024). Predictors of student attitudes towards artificial intelligence: Implications and relevance to the higher education institutions. *International Journal of Didactical Studies*, 5(2), 27763. <https://doi.org/10.33902/ijods.202427763>
- Boubker, O. (2024). From chatting to self-educating: Can AI tools boost student learning outcomes? *Expert Systems with Applications*, 238, 121820. <https://doi.org/10.1016/j.eswa.2023.121820>
- Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2020). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, 24(6), 641–654. <https://doi.org/10.1080/13645579.2020.1805550>
- Chan, C.K.Y. & Colloton, T. (2024). *Generative AI in higher education: The ChatGPT effect*. Routledge. <https://doi.org/10.4324/9781003459026>
- Chan, C.K.Y. & Hu, W. (2023). Students' voices on generative AI: perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20, 43. <https://doi.org/10.1186/s41239-023-00411-8>
- Chan, C.K.Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education*, 20, 38. <https://doi.org/10.1186/s41239-023-00408-3>
- Crawford, J., Cowling, M., & Allen, K. (2023). Leadership is needed for ethical ChatGPT: Character, assessment, and learning using artificial intelligence (AI). *Journal of University Teaching & Learning Practice*, 20(3), 2. <https://doi.org/10.53761/1.20.3.02>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Farrokhnia, M., Banihashem, S.K., Noroozi, O., & Wals, A. (2023): A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 61(3), 460–474. <https://doi.org/10.1080/14703297.2023.2195846>
- Furze, L., Perkins, M., Roe, J., & MacVaugh, J. (2024). *The AI Assessment Scale (AIAS) in action: A pilot implementation of GenAI supported assessment* (Publication no: 2403.14692). ArXiv. <https://doi.org/10.48550/arXiv.2403.14692>
- Gao, C.A., Howard, F.M., Markov, Dyer, E.C., Ramesh, S., Luo Y. & Pearson A.T. (2023). Comparing scientific abstracts generated by ChatGPT to real abstracts with detectors and blinded human reviewers. *NPJ Digital Medicine*, 6, 75. <https://doi.org/10.1038/s41746-023-00819-6>
- Gerlich, M. (2025). AI tools in society: impacts on cognitive offloading and the future of critical thinking. *Societies*, 15(1), 6. <https://doi.org/10.3390/soc15010006>
- Hall, S., & Liebenberg, L. (2024). Qualitative description as an introductory method to qualitative research for master's-level students and research trainees. *International Journal of Qualitative Methods*, 23. <https://doi.org/10.1177/16094069241242264>
- Hatch, J. (2023). *Doing qualitative research in education settings*. Suny Press. <https://doi.org/10.1515/9781438494623>

- Li, J., King, R. B., Chai, C. S., Zhai, X., & Lee, V. W. Y. (2025). The AI motivation scale (AIMS): a self-determination theory perspective. *Journal of Research on Technology in Education*. Advance online publication. <https://doi.org/10.1080/15391523.2025.2478424>
- Lim, W. M., Gunasekara, A. N., Pallant, J. L., Pallant, J. I., & Pechenkina, E. (2023). Generative AI and the future of education: Ragnarök or reformation? A paradoxical perspective from management educators. *International Journal of Management Education*, 21(2), 100790. <https://doi.org/10.1016/j.ijme.2023.100790>
- Limboro, C.M., & Kaugi, E.M. (2019). Technology integration in teacher education: implications for policy and curriculum reform. In J. Keengwe & G. Onchwari (Ed.). *Handbook of research on literacy and digital technology integration in teacher education* (pp. 282-299). IGI Global. <https://doi.org/10.4018/978-1-7998-1461-0.ch016>
- Mertens, D. (2020). *Research and evaluation in education and psychology: integrating diversity with quantitative, qualitative, and mixed methods*. Sage.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Mori, L. H. (2023). Woke in the dark: Embracing diversity and trust through social and emotional learning in education in the age of artificial intelligence. *International Journal of Didactical Studies*, 4(2), 21482. <https://doi.org/10.33902/ijods.202321482>
- O'Dea, X., & O'Dea, M. (2023). Is artificial intelligence really the next big thing in learning and teaching in higher education? a conceptual paper. *Journal of University Teaching & Learning Practice*, 20(5), 5. <https://doi.org/10.53761/1.20.5.05>
- Passey, D., Taggart, S., Leow, S., & Lee, C. E. (2024). Generative Artificial Intelligence and education: Research, policy and practice. *Studies in Technology Enhanced Learning*, 4(1), 1-14. <https://doi.org/10.21428/8c225f6e.001efa82>
- Perera, P., & Lankathilake, M. (2023). Preparing to revolutionize education with the multi-model genai tool google gemini? a journey towards effective policy making. *Journal of Advances in Education and Philosophy*, 7(8), 246-253.
- Peres, R., Schreier, M., Schweidel, D., & Sorescu, A. (2023). On ChatGPT and beyond: How generative artificial intelligence may affect research, teaching, and practice. *International Journal of Research in Marketing*, 40(2), 269-275. <https://doi.org/10.1016/j.ijresmar.2023.03.001>
- Qadir, J. (2023). *Engineering education in the era of ChatGPT: Promises and pitfalls of generative AI for education* [Paper presentation]. IEEE Global Engineering Education Conference (EDUCON), Kuwait. <https://doi.org/10.1109/EDUCON54358.2023.10125121>
- Rasul, T., Nair, S., Kalendra, D., Robin, M., De Oliveira Santini, F., Junior Ladeira, W., Sun, M., Day, I., Ahmad Rather, R., & Heathcote, L. (2023). The role of Chatgpt in higher education: benefits, challenges, and future research directions. *Journal of Applied Learning and Teaching*, 6(1), 41-56. <https://doi.org/10.37074/jalt.2023.6.1.29>
- Re, A., Città, G., Gentile, M., Lo Presti, F., Pitrella, V., Tosto, C., & Perna, S. (2024). AI-awareness: Fostering teachers' awareness of artificial intelligence through a board game. In G. Minchiotti, M. Gentile, & D. P. Pina (Eds.), *Games and Learning Alliance (GALA 2024), Lecture Notes in Computer Science: Vol. 15348* (pp. 421-426). Springer. https://doi.org/10.1007/978-3-031-78269-5_45
- Rogers, E. M. (2003). *Diffusion of innovations*. Free Press.
- Taherdoost, H. (2022). What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations. *Journal of Management Science & Engineering Research*, 5(1), 53-63. <https://doi.org/10.30564/jmser.v5i1.4538>
- Xia, Q., Chiu, T.K., Zhou, X., Chai, C.S., & Cheng, M. (2022). Systematic literature review on opportunities, challenges, and future research recommendations of artificial intelligence in education. *Computer Science Education Artificial Intelligence*, 4, 100118.