

CHATTING WITH THE ASSISTANT: ENABLING STUDENTS TO USE CHATGPT FOR SELF-ASSESSMENT BEFORE ASSIGNMENT SUBMISSION

Ruth Forrest

Dr., Department of Psychology and Education, Longford International College (Ireland)

Abstract

This paper investigates the intentional integration of generative artificial intelligence, specifically ChatGPT—into postgraduate dissertation supervision within online higher education contexts. Nineteen master’s students across two disciplines (Sport and Exercise Psychology and Business Administration) participated in a 12-week intervention focused on building custom GPTs for academic support, self-assessment, and improved communication. Drawing from theories of self-regulated learning (Zimmerman), andragogy (Knowles), constructivist pedagogy (Vygotsky, Laurillard), formative assessment (Black & Wiliam), and critical digital pedagogy (Selwyn, Williamson), the study presents qualitative data gathered through semi-structured interviews. Findings suggest enhanced analytical writing, greater confidence among non-native English speakers, and a shift in tutor-student interactions toward independence and critical engagement. Students reported using AI to refine argumentation, clarify structure, and develop professional communication skills. This paper provides a robust model for integrating ethical AI into academic practice, with implications for institutional policy, digital literacy, and future research in technology-enhanced learning.

Keywords: *Artificial Intelligence, dissertation-supervision, self-assessment, digital literacy.*

1. Introduction

The accelerating development and deployment of generative artificial intelligence (AI) in education has sparked considerable debate around the pedagogical, ethical, and cognitive implications of its use. While concerns around plagiarism, academic dishonesty, and over-reliance persist, there is growing evidence that when used transparently and critically, AI can serve as a catalyst for independent learning, especially in online, postgraduate education (Holmes et al., 2022; Selwyn et al., 2023). This study investigates one such application, focusing on how master’s degree students in an online university used ChatGPT to enhance their academic writing, structure their dissertations, engage in formative self-assessment, and improve their professional correspondence during supervision. The context of this study is especially pertinent given the global and linguistically diverse student cohorts engaged in distance learning—an environment that requires both technological fluency and self-regulatory learning behaviours.

2. Objectives

This research aimed to investigate how generative AI—specifically ChatGPT—could be pedagogically integrated into the postgraduate research process in ways that encourage independent learning, enhance academic writing, and support students’ metacognitive development. The four primary objectives were:

- (1) to explore how students used customised GPT-based tools to reflect upon and improve their work;
- (2) to assess whether such usage promoted greater critical engagement and analytical writing;
- (3) to understand the tutor’s shifting role in an AI-supported learning environment; and
- (4) to evaluate ethical practices and the challenges of maintaining academic integrity.

These aims were informed by current theory and research on self-regulated learning (Zimmerman, 2002), the ethics of educational AI (Williamson, 2022), and adult education principles (Knowles, 1975).

3. Theoretical framework

This study is grounded in a rich theoretical landscape spanning self-regulated learning, constructivist pedagogy, adult learning theory, formative assessment, and critical digital literacy. These theoretical perspectives informed both the structure of the intervention and the interpretation of results.

Self-regulated Learning (SRL), as defined by Zimmerman (2002), encompasses the metacognitive, motivational, and behavioural processes that learners use to plan, monitor, and evaluate their learning. SRL posits that students are not passive recipients of knowledge but active agents capable of setting goals, selecting strategies, and assessing their progress. In the context of AI-assisted learning, the use of ChatGPT was positioned as a tool to enhance these self-regulatory behaviours—particularly in the planning and drafting phases of dissertation work. Students learned to prompt ChatGPT to challenge their assumptions, simulate opposing viewpoints, and clarify their own arguments, thus reinforcing the SRL cycle.

Complementing SRL is Knowles' (1975) *Theory of Andragogy*, which emphasizes the autonomy and self-direction of adult learners. Knowles argued that adult learners are intrinsically motivated and draw on accumulated experience to make meaning. By providing students with AI tools to independently assess, revise, and organise their academic writing, this study embraced an andragogical model that respected learner agency and promoted a revised partnership approach to research and dissertation supervision.

Constructivist pedagogy, particularly that articulated by Vygotsky (1978), further underpinned the design of this project. The interaction with ChatGPT was conceived as a form of mediated learning, akin to scaffolding in the *Zone of Proximal Development* (ZPD). By asking guiding questions and proposing development strategies, the chatbot served as a quasi-peer with infinite patience and availability, facilitating purposeful and meaningful individualized knowledge construction for and with the student through dialogue.

Formative Assessment Theory, as developed by Sadler (1989) and extended by Black and Wiliam (2009), stresses the importance of timely, constructive feedback in developing student competence. Within this study, students embedded their institution's marking rubric into GPT prompts, effectively transforming the chatbot into a responsive, formative feedback system. This not only familiarized students with assessment criteria but also encouraged them to internalize standards of academic quality and to trust in the consistency of the requirements of the respective universities as aligned with the perceived objectivity of its demands.

Finally, this study was informed by critical digital pedagogy and emerging discourses on AI ethics in education. Selwyn (2016) and Williamson (2022) caution against uncritical adoption of educational technology, noting the risks of bias, surveillance, and data commodification. To mitigate these risks, this study foregrounded digital literacy and ethical use, ensuring students validated all sources, cross-checked references, and used ChatGPT as a thinking companion rather than a source of content to copy.

Together, these frameworks offered a robust and nuanced basis for the intervention, allowing for a pedagogy that was student-centred, digitally aware, ethically sound, and responsive to the diverse needs of learners in an online postgraduate context.

4. Methodology

This study employed a qualitative action research design (McNiff & Whitehead, 2002), characterised by cyclical reflection, iterative feedback, and participatory engagement between the researcher and student participants. Action research was deemed appropriate for this intervention as it enabled the researcher—who was also the students' supervisor and tutor—to adapt teaching strategies in real time while systematically observing the impact of generative AI on learning outcomes and student empowerment.

The intervention involved 19 postgraduate students enrolled in either a Master's in Sport and Exercise Psychology (n=11) or a Master's in Business Administration (n=8) in the online university. Students attended weekly sessions over 12 weeks as part of their Research Methods module. These sessions focused on introducing ChatGPT, principles of prompt engineering, structuring academic writing, alignment with institutional rubrics, ethical considerations, and building custom GPT tools tailored to their individual research.

Ethical approval was granted by the institution following submission of detailed risk assessments and data protection protocols. All participants signed informed consent forms, and confidentiality was preserved in the reporting of findings. Students were reminded continuously of the importance of validating AI-generated content and were encouraged to maintain academic integrity through critical engagement rather than what might have appeared attractive – that is the uncritical adoption of information without verification.

To collect data, the researcher conducted one-on-one semi-structured interviews via *Zoom* at the end of the 12-week period. Each interview lasted between 30 and 45 minutes and was transcribed verbatim for thematic analysis. Braun and Clarke's (2006) six-phase model guided the analytical process: familiarisation, initial coding, theme identification, theme review, theme definition, and write-up. The interviews were designed to elicit rich, reflective data regarding the students' use of ChatGPT, their perceptions of the tool's impact on learning, and their broader reflections on digital support in academic life.

The semi-structured interview guide schedule included the following questions:

1. *How did you use ChatGPT in the development of your dissertation or assignment work?*
2. *What was most useful or effective about using ChatGPT in your academic writing process?*
3. *Were there any significant limitations or challenges you experienced while using the tool?*
4. *To what extent did you feel that ChatGPT changed the way you approached learning or research?*
5. *How did you ensure that AI-generated content you used was accurate and ethically used?*
6. *Did the use of ChatGPT affect your confidence in writing, particularly in English (if applicable)?*
7. *In what ways might it have changed the type of support you expected from your supervisor?*
8. *Would you recommend the use of ChatGPT to other university students? Why or why not?*
9. *How could this approach to teaching and learning be improved or extended in future teaching?*
10. *What are your views on using GPT to help you draft professional emails or correspondence with your supervisor?*

The final question was particularly valuable in illuminating an emerging theme: that of professional academic communication. Several students began to use ChatGPT to frame their email communications with their tutors, supervisors, and support services. This practice ensured clarity, a consistent academic tone, and a reduction in miscommunication—especially for students working in a second language. One student remarked: "I always struggled with formal tone. The GPT helped me write respectful emails that sounded academic. I feel more confident reaching out." Another commented: "It's not just for writing chapters—it helps with the whole research process, including how I present myself in emails." The researcher recommends this as a further area of development in AI-integrated education: to promote GPT usage not only for drafting and self-assessment but also as a scaffold for developing professional digital literacy in all aspects of academic life.

5. Findings and discussion

The thematic analysis of the interviews yielded *five core findings*, each supported by student testimony and situated within relevant pedagogical theory. These themes demonstrate the multifaceted impact of using generative AI strategically and ethically as a self-assessment and learning-enhancement tool.

These findings included, *Enhanced Confidence in competence in Academic Writing, Improved Analytical and Critical Engagement, Shift in the nature, function and role of the Research Supervisor, Increased Ownership of Assessment Criteria* and the *Development of Professional Communication***

For many students, especially those for whom English was an additional language, ChatGPT served as a confidence-building companion. Students described how the tool supported their grammar, phrasing, and academic tone. One MBA student remarked: "*I used to worry that my writing sounded too basic. ChatGPT helped me reword it more professionally. I now write with more pride.*" This aligns with research by Holmes et al. (2022), who suggest that AI can help mitigate language barriers and promote more equitable outcomes.

Far from relying on AI for content creation, students learned to use the tool to ask questions about coherence, evidence, and argument structure. One psychology student explained: "*I would paste a paragraph in and ask the bot if it made sense. Sometimes it would say: 'this point is not supported by evidence' or 'clarify your logic'. That really pushed me to think more deeply.*" This type of engagement is closely aligned with Zimmerman's (2002) self-regulated learning theory, wherein students assess their own performance and revise their strategies according to the feedback achieved through engagement with the Bot.

With the chatbot handling lower-order corrections (e.g., grammar, syntax), the supervisor could focus more on higher-order concerns such as conceptual clarity, theoretical alignment, and research ethics. As one student stated: "Before, I would send a rough draft and get it back full of comments on commas and spelling. Now I clean it up first, and we talk about ideas, not grammar." This reflects Laurillard's (2002) view of the educator as a facilitator of conceptual understanding rather than a gatekeeper of correctness.

Many students imported their institution's grading rubric into the chatbot and created prompts to evaluate their drafts against it. This process internalized assessment standards and promoted self-monitoring. One student commented: *"It was like having a personal rubric assistant. I kept checking if I was hitting the criteria."* This self-assessment approach is well-supported by Sadler (1989), who argued that formative feedback should enable learners to understand quality and close the gap between current and desired performance.

An unexpected but positive outcome was the use of GPT for email drafting. Students who previously struggled with formal tone found that GPT helped them write clear, professional messages to their tutors. One noted: *"It saved me time and embarrassment. Now I double-check every email with GPT before I send it."* This reflects Bandura's (2001) social cognitive theory, particularly the concept of self-efficacy: students became more confident not only in writing assignments but in communicating effectively within an academic context and overall professional and business environment.

In addition to these themes, the students themselves recognised the ethical dimensions of their use of AI. Several mentioned using plagiarism-checking tools, double-checking citations, and paraphrasing AI suggestions in their own voice. This awareness suggests that when scaffolded correctly, AI can foster rather than diminish academic integrity—a point echoed in the literature by Selwyn et al. (2023) and OpenAI (2023). The intervention modelled a transparent, critically engaged approach to AI that resonated with the students both in terms of their personal and their professional needs and values aligned with their work.

These findings demonstrate not only the pedagogical promise of generative AI in postgraduate education but also the importance of intentionality, guidance, and ethical reflection in its application.

6. Conclusions and recommendations

This study set out to explore how generative AI—specifically ChatGPT—could be ethically and effectively integrated into postgraduate dissertation supervision to support self-assessment, academic writing, and independent learning. The findings indicate that when students are taught not just how to use AI tools, but how to question, evaluate, and co-construct knowledge with them, the result is a more empowered, critically engaged student and lifelong learner who is well-equipped to deal with the challenges of online learning.

The integration of ChatGPT into academic practice offered several advantages. Students reported greater confidence in their writing, enhanced ability to engage critically with their research, and a deeper understanding of assessment criteria. Notably, students began to view AI as a companion in learning, using it not as a shortcut, but as a space for rehearsal, inquiry, and refinement. This aligns with pedagogical shifts toward learner-centred, dialogic, and constructivist approaches in higher education (Laurillard, 2002; Vygotsky, 1978).

Equally significant was the observed shift in the tutor's role. Freed from correcting surface-level errors, the tutor could focus on supporting deeper conceptual development, methodological rigour, and critical thinking. The introduction of AI thus fostered not only student independence but also more meaningful and productive tutor-student dialogue thus introducing a more collaborative approach to the teaching and learning.

One particularly promising outcome was the use of GPT to assist students in drafting professional emails. For many, this was the first time they had considered how language choices impact tone and clarity in academic correspondence. Promoting the use of GPT in this context can support the development of professional digital literacy—a key skill in postgraduate and professional life.

Based on these outcomes, several preliminary recommendations emerge which, when shared, may contribute to this area and approach to learning, particularly in the online domain:

- Institutions should consider embedding AI literacy and ethical AI use into Research Methods curricula.
- Supervisors should receive training on how to support students' use of AI tools constructively.
- Students should be encouraged to use GPT not only for academic drafting but also to refine their professional communication with other stakeholders in the teaching, learning and research process.
- Further research should examine long-term impacts of AI-supported supervision on academic outcomes and student confidence and overall performance in Higher Level education institutions.

In conclusion, ChatGPT has demonstrated real pedagogical value when introduced with clarity, transparency, and purpose. It represents not just a technological shift, but a cultural and pedagogical one—offering new opportunities for co-agency, digital competence, and the reimagining of academic support in online learning environments. With appropriate scaffolding, AI can support the development of not only better writing, but better writers...

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