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Master's Dissertation Writing in the ChatGPT Era: Redesigning Policy and Assessment in Higher Education

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Abstract

The integration of generative AI into academic writing has introduced new complexities in supervision, assessment, and the ethical dimensions of research production. This study investigates how EFL Master's students use generative AI (Gen AI) tools during the dissertation writing process and examines the cognitive and academic consequences of such use. It also explores potential solutions to the challenges posed by Gen AI, drawing on insights from both students and teachers. Data were collected through student and teacher questionnaires and supervision-based reports. The participants included 52 Master's students who defended their dissertations during the June–July 2025 session, and 15 teachers who supervised and/or examined these dissertations. Findings reveal that Gen AI tools were employed at nearly every stage of the dissertation process, including tasks traditionally expected to be performed by students themselves, such as summarizing literature and discussing findings. This extensive reliance led to cognitive offloading, which negatively impacted students' intellectual development and critical thinking. Teachers also expressed academic concerns, often disapproving of work they perceived as overly AI-dependent. Students, in turn, acknowledged limitations in using Gen AI, such as AI hallucinations and the loss of personal voice and writing style. The study further highlights the absence of clear guidelines on the ethical use of Gen AI in academic writing and the lack of effective assessment methods for distinguishing between human- and machine-generated content. To address these challenges, the findings call for the inclusion of core principles such as transparency, responsible AI use, and a balance between human effort and machine assistance. In addition, AI-resistant assessment strategies are recommended, including enhanced questioning during oral defenses and greater reliance on supervisors' reports that track students' progress over time. This study contributes to the evolving discourse on AI in higher education by emphasizing the need for responsible integration and strong, integrity-focused assessment practices.

Keywords: AI-resistant assessments, ethical use of AI, Gen AI tools, higher education, master's dissertation.

1. Introduction

The benefits of generative artificial tools such as ChatGPT in enhancing the learning process cannot be denied by any educator. In EFL contexts where both students and teachers have limited exposure to native English environments, generative AI chatbots serve as reliable sources of linguistic input, instant feedback and continuous support throughout the teaching and learning process. However, their role becomes more controversial when it comes to the submission of written assignments, research papers, or other academic work. While many students view Gen AI tools as helpful tools, teachers often see them as an obstacle to authentic learning and assessment.

Actually, never before has the use of AI in dissertation writing been as prominent as in 2025, particularly in the Department of English, Algiers 2 University, where the defense day was jokingly renamed “ChatGPT’s Defense”. This phenomenon has prompted many staff members to question the very validity of using dissertations as a central assessment tool for awarding the Master’s degree. It is true that generative AI tools are undoubtedly here to stay, and as Yeo (2023) puts it, “the genie cannot be put back in the bottle”, but there is also an urgent need to rethink how dissertations are assessed. New approaches must both foster students’ authentic development as researchers and allow teachers to effectively evaluate students’ own contributions, rather than AI-generated content.

The objectives of this study are threefold: (1) to explore the areas in which generative AI tools are utilized to support students in writing their Master’s dissertations, (2) to examine the risks and limitations associated with the use of large language models (LLMs) in academic writing within higher education, and (3) to identify potential assessment approaches that can mitigate the threats posed by AI-generated content, particularly in submitted Master’s dissertations.

The study is significant in that it seeks to address a pressing issue in academia, particularly within the context of high-stakes assessments such as the Master’s dissertation, which serves as a key criterion for awarding the MA degree. With the advent of AI-authoring tools like ChatGPT, the validity of such assessments is increasingly called into question. At the institutional level, this study aims to raise awareness among faculty members about the urgent need to reconsider current assessment practices, not only for dissertations but potentially for all forms of written academic work. It also seeks to offer practical solutions that enable supervisors and dissertation examiners to more effectively evaluate students’ authentic contributions, rather than grading content generated by a robot.

Beyond its local relevance, the findings of this study contribute to the broader scholarly discourse on academic integrity, high-stakes assessment, and the role of artificial intelligence in higher education which stresses the responsible and ethical engagement with generative AI tools in the production of academic literature.

2. Literature Review

The theoretical framework of this study is grounded in three key areas of literature: (1) research highlighting the benefits of artificial intelligence in enhancing various writing skills, particularly in higher education; (2) studies that identify the limitations and challenges associated with the use of generative AI tools in academic writing; and (3) scholarship proposing new perspectives on adapting assessment practices to the era of large language model (LLM)-powered generative tools, with a focus on maintaining academic integrity.

2.1 The Role of Generative AI in Academic Writing

In the past, artificial intelligence tools primarily functioned as basic grammar and spelling editors. However, the emergence of new generative chatbots has revolutionized this role by enabling the creation of entire texts and essays. These tools offer students opportunities to engage with multiple writing genres and styles, while also serving as a valuable source of instant feedback through comparison with more sophisticated AI-generated texts (Cotton et al., 2024). In a systematic review, Khalifa and Albadawy (2024) identified six domains across 24 studies where ChatGPT supports academic writing and research among which facilitating idea generation and research design, improving content organization and structure, supporting literature review and synthesis, enhancing data management and analysis.

Additional benefits include time efficiency (Hasanein & Sobaih, 2023; Rozek, 2024; Niloy et al., 2024), the simplification of complex academic tasks, and the ability to redirect students' efforts toward developing other essential skills such as presentation and collaboration (Gamage et al., 2023; Finkel-Gates, 2025). In addition to enhancing writing quality, the use of AI tools by researchers is increasingly viewed as legitimate, provided it is done ethically. For instance, during the preparation of this article, we identified a study by Cheng, Calhoun, and Reedy (2025) in which the authors explicitly reported using ChatGPT-4 to support their literature review by posing the question: "What recommendations exist for ethical use of ChatGPT in academic writing?" This example illustrates that even researchers are beginning to incorporate generative AI as a tool in scholarly work. Importantly, the authors also emphasized the need for ethical and critical engagement with AI-generated content to ensure it supports the educational and research processes rather than undermining them.

2.2 The Challenges of Using Generative AI in Academic Writing

While ChatGPT offers numerous advantages for enhancing EFL writing, its integration into higher education is not without significant risks and challenges. Among the most pressing concerns reported in the literature is the threat to academic integrity. Generative AI tools no longer merely assist with specific tasks; they are now capable of producing entire essays and academic texts that closely resemble human writing (Cheng et al., 2025). This capacity raises serious concerns regarding authorship and originality, especially when academic staff are often unable to distinguish between human-produced and AI-generated content thereby undermining the credibility of assessment processes.

Although AI detectors such as Turnitin AI Detection, GPTZero, and ZeroGPT have shown some success in flagging machine-generated content (Karnalim, 2024), other tools remain unreliable, yielding false positives, false negatives, and biased results (Rafiq et al., 2025). Such inconsistencies can lead to wrong accusations and damage both student trust and the overall integrity of the educational process (Rudolph et al., 2023; Biondi-Zoccai et al., 2025). Moreover, the rapid advancement of generative models like GPT-4, Claude, and Gemini often outpaces the capabilities of detection tools, further complicating the work of educators (Giri, 2025).

Beyond concerns of plagiarism, another critical issue associated with ChatGPT is the phenomenon of "AI hallucinations" which is the generation of inaccurate, misleading, or fabricated references and content. If such outputs are not carefully verified by students or instructors, they risk compromising the quality and credibility of academic work (Athaluri et

al., 2023; Cheng et al., 2025). In some cases, AI tools also produce biased content tailored to the input prompt, which may mislead researchers seeking objective insights (Khan, 2023).

These technological developments have also introduced broader institutional and pedagogical challenges. On one hand, students are increasingly taking advantage of accessible and powerful AI tools to complete major assignments or pass high-stakes exams. On the other hand, educators find themselves functioning within unclear boundaries because they are uncertain whether to normalize or prohibit the use of such tools, especially in the absence of clear institutional policies. Even when guidelines are in place, the task of detecting AI-assisted work remains difficult, particularly when instructors lack adequate training or familiarity with available detection technologies (Cotton et al., 2024; Giri, 2025)

Another growing concern is the phenomenon of cognitive offloading, wherein individuals rely on technology to perform mental tasks. Although tools such as calculators, spell checkers, grammar checkers, and machine translators have long been used in education, their overuse can reduce cognitive engagement and hinder learning. In the context of generative AI, this cognitive outsourcing may deprive students of the deeper thinking processes essential to writing, critical analysis, and academic development (Khan, 2023; Gupta, 2024). Gupta (2024) claimed that: “Every tool we've invented—from the compass to the calculator to the microscope—has changed what we think about. But AI is doing something more profound: it's changing how we think. It affects the flow, structure, and even the experience of thought itself.”

2.3 Rethinking Evaluation Standards of Academic Writing in the Age of ChatGPT

Instructors in higher education remain divided on the integration of generative AI tools into their teaching practices. While some view them as beneficial, others perceive them as harmful, and many remain uncertain about their long-term implications (Khlaif et al., 2024). However, a growing consensus is emerging around the need to redesign assessment practices, particularly written assessment, by updating evaluation criteria to reflect the influence of text-generating tools. In this context, scholars have proposed two main directions for reform. First, there is a call to rethink the nature of assessment tasks and the rubrics used to evaluate them. Second, there is an urgent need to establish clear standards for the ethical use of AI by students.

Regarding assessment rubrics, several scholars advocate moving away from traditional criteria focused solely on linguistic features (e.g., grammar, vocabulary, and structure) and textual features (e.g., cohesion, coherence, style, and voice). Instead, they propose a shift toward evaluating students' critical thinking and deep engagement with content (Cotton et al., 2024). This aligns with the concept of AI-resistant assessment, as defined by Khlaif et al. (2025), which emphasizes tasks that minimize students' reliance on Gen AI tools. These assessments aim to prioritize skills that AI cannot replicate, such as creativity, critical thinking, ethical reasoning, and independent judgment.

AI-resistant tasks are typically process-driven and include reflective writing, oral examinations, and authentic, inquiry-based assignments (Donaghy, 2023). Such approaches emphasize the learning process over the final product, encouraging students to build enduring academic and cognitive skills (Abubakar et al., 2024; Khlaif et al., 2025). For example, a widely recommended practice is the evaluation of students' drafts prior to final submission. This allows instructors to identify possible signs of AI-generated content and provide timely feedback. Such an approach not only aids in detection but also reinforces formative

assessment practices that are proven to enhance student learning outcomes (Cotton et al, 2024; Gewaltig, 2024). It also reflects a broader pedagogical stance: integrating AI tools responsibly to support rather than replace traditional educational practices (Holmes et al, 2019; Gupta, 2024).

In terms of ethical considerations, numerous scholars (e.g., Konwar, 2025; Cotton et al, 2024; European Commission, 2025; Gewaltig, 2024; Yeo, 2023) emphasize disclosure and transparency as critical principles to mitigate ethical risks in AI-assisted research and writing. These principles are even included in evaluation rubrics developed by some scholars. For example, Cheng, Calhoun, and Reedy (2025) propose a checklist to guide ethical AI use in academic writing. This includes the following questions:

1. Have I used generative AI in a way that ensures the primary ideas, insights, interpretations, and critical analyses are my own?
2. Have I used generative AI in a way that maintains human competency in essential research and writing skills?
3. Have I verified that all content and references in my manuscript are accurate, reliable, and free from bias?
4. Have I clearly disclosed how generative AI tools were used, and specified which parts of the manuscript involved AI assistance?

Kassorla (2024) also suggested a similar checklist for evaluating student writing arguing that assessment criteria have evolved significantly. Rather than prioritizing mechanics like grammar and organization, contemporary rubrics now should value integrity, accuracy, and transparency. Kassorla (ibid) also maintained that these questions serve as a practical framework not only for researchers but also for students, helping them learn about the ethical dimensions of AI integration in academic work.

3. Research methodology

3.1 Research Questions

This study employs a qualitative research approach, using questionnaires to explore teachers' and students' perceptions of Gen AI tools, particularly ChatGPT, in writing master's dissertations, and process documentation to track supervisees' actual use of these tools throughout the dissertation process. To guide this investigation, three research questions were addressed:

1. In what ways are generative AI tools utilized by Master's students during the dissertation writing process?
2. What risks and challenges do students and teachers perceive in the use of generative AI tools for dissertation writing?
3. What strategies or alternatives do students and teachers propose to uphold academic integrity in AI-assisted academic writing?

3.2 Context

The research took place in the Department of English at University of Algiers 2, Abulkacem Saadallah. It involved the second Master level in the stream of EFL Didactics which included 200 students divided into two groups of Master 2 in the academic year 2024/2025, during

which this research was carried out. The supervision process of these students began in December 2024 until June 2025. In the stream of Master EFL Didactics, paired-master students are required to write a secondary research dissertation that requires a critical analysis of three empirical studies. The dissertation consists mainly of a theoretical background (Part One) and a review of three research articles (Part Two). By mid-June, the majority of students submitted their dissertations for evaluation by the members of the jury and defended them at the end of the academic year, by June-July. Thus, this study included only some of the students who defended their dissertations and the teachers who were also members of the jury during the vivas that were held at that period.

3.3 Participants

The study involved 15 teachers who supervised and/or examined Master's dissertations during the June–July 2025 session, as well as 52 students who defended their dissertations during the same period. Both teachers and students responded to questionnaires that addressed key issues related to the use of AI in the preparation and evaluation of Master's dissertations. Among the student participants, one pair of the researcher's supervisees was included in the documented supervision process. Ethical considerations were observed by informing these students that data from the supervision process, including their drafts, would be analyzed for research purposes related to the use of AI in academic writing.

3.4 The Instruments

This study employed two questionnaires, distributed via Google Forms, targeting both students and teachers. The student questionnaire consists of 14 items, while the teacher questionnaire includes 9 items. Additionally, to ensure data triangulation, a process document was analyzed. This document was based on supervision reports tracking the progress of a pair of supervisees throughout the dissertation writing process. The following section provides a detailed description of the three instruments used in this study.

Students' questionnaire: This tool explored: (1) which type of Gen AI tools are frequently used, for which reason and in which area of research and part of the dissertation these tools are used, (2) whether students perceive the use of Gen AI tools as enhancers/support to develop academic writing or a threat to the originality of their work and a harm to their image and integrity, (3) whether students disclose the use of Gen AI in their work, (4) whether students consider the dissertations evaluation criteria fair and inclusive of AI tools and (5) which aspects they think should be considered in assessing master dissertations in future.

Teachers' Questionnaire: This tool explored: (1) whether teachers detect the use of Gen AI in students' master dissertations and in which area of research and part of the dissertation these tools are suspected to be used, (2) whether supervisees are transparent with their supervisors when using Gen AI tools in preparing their dissertations, (3) which challenges teachers encounter in grading master dissertations, (4) teachers' capabilities in distinguishing between human and machine outputs, (5) teachers' perceptions of the traditional assessment criteria and perspectives on the new ones.

Process Document: This document serves as a record of the supervision process and students' progress in preparing their Master's dissertations. It is based on an analysis of various drafts submitted via email or handed directly to the supervisor. The journal also includes key feedback provided to the students, as well as remarks on their progress and any challenges encountered between 8 April 2025 and 23 June 2025, spanning from initial submissions to the final defense.

To maintain relevance to the focus of this study, only data related to the use of AI in dissertation preparation are presented in this document. In addition, due to the volume of information and space constraints, only one pair of candidates supervised by the researcher was selected for detailed tracking during the supervision process.

4. Results

4.1 Results from Students' Questionnaire:

1. Did you use Artificial intelligence in your dissertation writing?

Yes	90 %
No	10%

2. Which tools did you use, if any?

ChatGPT	60 %
Grammarly	10%
Quillbot	10%
Perplexity	10%
Emingway Editor	10%
All	0%
No use	0%

3. How often did you use tools like ChatGPT?

Always	0%
Frequently	60%
Occasionally	30%
Rarely	10%

4. At which stages did you use ChatGPT or similar tools? (more than one answer is possible)

Topic selection	0%
Articles selection	10%
Summary of articles	60%
Selection of sources	20%
Literature review	50%
Discussing findings	50%
Data interpretation	20%
Drafting chapters	0%

Rephrasing/paraphrasing	60%
Proofreading	10%
Grammar mistakes	10%
Correction	10%
AI was not used	10%
5. Why did you use ChatGPT or similar tools? (more than one answer is allowed)	
Lack of time to write the dissertation	30%
Lack of confidence in writing a good dissertation	10%
Lack of necessary competence to write a dissertation	40%
Lack of confidence to write in an academic way	10%
AI was not used	10%
6. Did you declare your use of AI in your dissertation?	
Yes, clearly	10%
Yes, indirectly	30%
No	60%
7. Do you think your AI use helped improve your writing?	
Strongly agree	30%
Agree	40%
Neutral	20%
Strongly disagree	10%
Disagree	0%
8. Do you consider your work as original despite AI support?	
Yes	40%
No	40%
Somewhat	20%
9. Were you concerned that jury members might disapprove of AI use?	
Yes	60%
No	40%

10. Did the jury members use clear criteria to assess AI-assistance in your dissertation?

No	90%
Yes	10%

11. Did they approve of AI assistance?

Yes	10%
No	90%

12. Should new rubric criteria be added for AI-era writing?

Yes	70%
No	30%

13. If yes, which? (many answers are possible)

Transparency of AI use (Declaring its use)	40%
Critical thinking and originality	30%
AI and human balance	20%
Ethical considerations	40%
Consideration of the initial drafts and progress	30%

14. In your opinion, what are the advantages and risks of using tools like ChatGPT in academic writing?

Main Themes	Supporting Examples from Participants' Comments
1. Efficiency and Time-Saving	• “Summarizes books and articles that will take time to read in a short period.” • “It helps clarify vague ideas.” • “It gives quick help and good ideas.”
2. Support for Idea Generation and Language Improvement	• “Helps with ideas, structure and grammar to save time and avoid mistakes.” • “It helps having more new ideas, writing styles... etc.” • “It helps students write faster, organize ideas, and improve language use.” • “It gives the demanded information.”
3. Accessibility and Inclusivity	• “ChatGPT can help... especially for non-native speakers.” • “Enhanced accessibility... empathy

	training tool.”
4. Ethical Concerns and Plagiarism Risks	5. “Risks like plagiarism, misinformation, and reduced critical thinking if overused.” 6. “Students might rely on it too much or copy without understanding.” 7. “Sometimes the answers sound too perfect and may not show the real level of the student.”
5. Over-Reliance and Loss of Skills	• “It may lead to laziness, lack of critical thinking and will cause some learners to be more reliant.” • “It may lead to the loss of your own writing style and your voice.” • “Can weaken the ability to think critically.”
6. Misuse and Misinformation	• “Still, it can give wrong information.” • “It should be used wisely, ethically, and strategically.”
7. Responsible and Ethical Use	• “The most important thing is to know how to use it in the right way.” • “Using it wisely is key to avoiding academic issues.” • “It can be used for correcting, but not for writing.”

4.2 Results from Teachers’ Questionnaire

1. Have you noticed students using AI tools like ChatGPT in their dissertations?

Yes	100%
No	0%
Suspected	0%

2. If yes, at what stages do you believe students used ChatGPT?

Topic generation	30%
Summarizing the articles	40%
Discussing findings	80%

Literature review summaries	100%
Comparing and contrasting findings	80%
Data interpretation	60%
Writing entire sections	40%
Paraphrasing	80%
Formatting and proofreading	60%
3. Can you distinguish between AI-assisted writing and original writing in student work?	
Always	40%
Often	60%
Rarely	0%
Not at all	0%
1. Did students openly discuss AI use with you?	
Yes	20%
No	60%
Some of them	20%
5. Do current rubrics provide enough flexibility to assess AI-assisted writing fairly?	
No	60%
Yes	40%
Somewhat	0%
6. Do you believe new criteria should be introduced to assess such writing?	
Yes	100%
No	0%
7. If yes, which? (Select all that apply)	
Students' critical thinking and originality	60%
AI and human balance	60%
Ethical use of AI	80%
Supervisors' report of the initial drafts and progress	80%
8. Have you encountered difficulties when grading dissertations potentially influenced by AI tools?	
Yes	80%

No	20%
9. If yes, please explain	
Main Themes	Supporting Examples from participants' comments
1. Uncertainty About the Extent of AI Use	"I could identify the use of AI tools, but I could not determine whether they were used simply to polish and edit the final version or to generate the content itself." "Not being certain what parts were generated or proofread by AI."
2. Lack of Reliable Detection Tools	"So far, there are no reliable AI detection tools that can make this distinction."
3. Confusion Over Evaluation Criteria	"It was unclear whether I was assessing the students' writing skills or their ability to use and manipulate AI tools." "I feel I'm grading a robot, not a human being."
4. Challenges in Viva Voce Examination	"I had to ask many sharp and deep questions during the viva voce examination... but we were allowed to ask only two questions and the entire session is required to last just 45 minutes."
5. Concerns About Authenticity and Student Effort	"Some students do devote effort to express ideas, but when merged with AI content, authenticity becomes at risk." "It is difficult to distinguish students' effort and AI generated content."
6. Divergence in Teacher Attitudes Toward AI Use	"There is no consensus among teachers about whether AI tools can be used as editing tools or not."

4.3 Results from Process Documentation

This record presents the supervisor's feedback to supervisees' initial drafts during the supervision process since the first draft was submitted on the 8th of April 2025 to the finalized submitted work on the 2nd of June 2025. The report also includes the jury's feedback on the day of the defense which was the 23rd June of the same year.

8/04/2025

First draft (General Introduction & Part 2: Critical Analysis)

- Some parts are entirely generated with AI.
 - Too broad and the context is not in accordance with the context of the three empirical studies
 - Students are strongly encouraged to submit original and personal work.
-

17/04/ 2025

Second Draft (General Introduction & Part 2: Critical Analysis)

- The work has become more or less authentic mainly the introduction of part 2
 - Students are asked to correct mistakes.
-

18/04/2025

Third Draft (General Introduction & Part 2: Critical Analysis)

- Again, some parts are suspected to be generated with AI tools mainly due to the highly polished language and style.
 - Students are encouraged to use their original words
-

4/05/ 2025

Fourth Draft (Literature Review)

- The first draft of the literature review needs a deep revision as it is very messy, not coherent, not well presented, not proofread, not consistent with scientific writing and not focused. Additionally, sources are not provided neither definitions and arguments but anecdotal ideas. Furthermore, there are no transitions between sections and there are a lot of repetitions.
 - Students were required to improve this part.
-

23/05/2025

Fifth Draft (Literature Review)

- The literature review was improved but the use of AI was detected in some parts. The students copied ChatGPT texts without even erasing some marks typical to it like the thick line at the end of the Chat.
-

30/05/2025

Sixth Draft (Part 2: Critical Analysis)

- Positive feedback to the second chapter with minor corrections of style and format.
-

1/06/2025

Seventh Draft (The whole work)

-Feedback was given on the preliminary pages including the abstract. Students were mainly required to add some necessary information in the abstract. The use of AI was also suspected in the generation of this part due to the style of language that looked different from previous drafts

-The general introduction needs to eliminate irrelevant parts that seem copied from other sources. Students have been warned against this in a face-to-face session and admitted that they used AI to write some parts of the general introduction.

2/06/2025

Finalized Dissertation

- After Finalizing the work, the students sent an email inquiring about the consequences of using AI in their work. They feared that their work be rejected and asked for help to make their work appear human academic work.
 - The students were recommended to submit their work despite declaring they used AI in writing their dissertation on the basis that no policy existed concerning the use of AI in academic research and writing.
-

23/07/ 2025

Viva

-The supervisor read the report on student's supervisory process, disclosing students' use of Gen AI in their work. This contributed to giving the grade to the students.

-To assess students' deep understanding of the content and their critical thinking skills, the jury members posed a series of questions. However, the students were unable to respond effectively, which revealed a lack of mastery of the subject matter.

5. Discussion

The discussion of findings is grounded around the three research questions formulated in this study:

Research question 1:

5.1 In what ways are generative AI tools utilized by Master's students during the dissertation writing process?

Results from the students' responses to the questionnaire indicate a high reliance on artificial intelligence tools in writing master's dissertations. Ninety percent (90%) of students reported the use of AI, with ChatGPT identified as the most commonly used tool by 60% of them. Interestingly, the tool is not primarily used for proofreading (which was

reported to be used only by 10% of the participants), but rather for completing tasks that are typically expected to be performed by the students themselves. These include summarizing articles (60%), writing literature reviews (50%), and discussing research findings (50%), all of which are reported to be extensively generated by ChatGPT. These findings are also corroborated by responses to the teachers' questionnaire which revealed that all teachers had observed students' reliance on AI tools in writing Master's dissertations, with such usage evident across all stages of the writing process. This was especially pronounced in literature reviews (100%), comparing and contrasting findings (80%), discussing findings (80%), and paraphrasing (80%). Moreover, 40% of the teachers reported that entire sections of some dissertations were generated by AI tools.

These findings are also supported by Evidence from the supervision-based report on a pair of Master's students under supervision between December and June 2025 which provides an illustrative example of how deeply AI tools can shape dissertation development. At the early stages of supervision, the students submitted a version of their work that was entirely generated by AI, with little alignment to their research context or the empirical studies under discussion. Despite repeated encouragement to produce original and personal contributions, the students continued to rely heavily on AI, sometimes without understanding of the content. The supervisor continued to detect traces of ChatGPT output, including formatting elements of the chats (e.g., visible lines copied directly from chat interfaces). A face-to-face discussion confirmed that students had used AI to write important parts of their dissertations. Given such results, ChatGPT is not used for final editing, but it substitutes the students in performing the required tasks, a practice that can obscure the true academic level of their writing.

Regarding perceptions of the impact of Gen AI tools on dissertation writing, the majority of students strongly agree (30%) or agree (40%) that ChatGPT improves their writing. The primary motivations for its use are a lack of the necessary academic writing skills (40%) and limited time to complete the dissertation (30%). Moreover, the thematic analysis of students' responses highlighted several advantages of using the tool, particularly its ability to provide rapid access to information and improve language quality. They appreciated how it summarizes books and articles quickly, saving time on lengthy readings, and how it helps clarify vague ideas and provide quick, relevant assistance. Many noted that the tool supports idea generation, helps structure content, and enhances grammar, which collectively saves time and reduces errors. Additionally, students mentioned that it introduces new ideas and writing styles, facilitates faster writing, improves the organization of ideas, and consistently delivers the specific information they need. These advantages are well-documented in the literature (Cotton et al., 2024; Khalifa & Albadawy, 2024; Gamage et al., 2023), particularly the time-saving benefits associated with processing information using generative AI tools. Indeed, this represents a primary reason why many turn to ChatGPT in academic work as evidenced by research (Hasanein & Sobaih, 2023; Niloy et al., 2024; Rožek, 2025), which indicates that AI is increasingly used as a time-management tool by students under academic pressure. However, the use of Gen-AI tools in academic writing and research production is not without risks and limitations as will be discussed in the following section addressing the second research question.

Research Question 2:

5.2 What risks and challenges do students and teachers perceive in the use of generative AI tools for dissertation writing?

Despite the benefits the Gen AI tools may offer, several concerns are also raised. First, not all students consider their work to be entirely original, with 40% of them acknowledging this limitation. Students also acknowledged several potential risks and drawbacks associated with the use of the tool including plagiarism, reduced student effort, diminished creativity, loss of individual writing style and voice, and a decline in critical thinking skills, especially when the tool is overused. All these are results of what is referred to in the literature as ‘cognitive-off loading’ (Khan, 2023; Perkins, 2023) that is the replacement of human mind by machines to perform cognitive tasks, which results in hindering students from engaging in the deeper cognitive processes necessary for writing, critical analysis, and academic growth.

Students are also conscious of the potential spread of misinformation fabricated by AI tools. This misinformation is referred to by "AI hallucinations" which is the creation of inaccurate, fabricated references and content. Including false, unverified information in academic writing in higher education really prejudices the integrity of the entire education process (Athaluri et al., 2023; Cheng et al., 2025; Khan, 2023). Student participants in this study also warned that they might become overly reliant on Gen AI tools to the point to copy content without truly understanding it. Student participants in this study also expressed concerns about the potential for overreliance on generative AI tools, warning that such dependence could lead to copying content without genuine understanding. This issue was observed in the real case of the supervised student pair, who had incorporated AI-generated content into their dissertations without fully grasping its meaning. As a result, they were unable to adequately respond to reflective questions during their viva, revealing gaps in comprehension and critical engagement.

In addition to the negative impacts on students’ intellectual development, other concerns related to assessment and policy emerged. As regards assessment, concerns about the validity and reliability of current assessment methods were voiced. Teachers expressed their difficulty in distinguishing between content that was merely polished by AI and content that was fully AI-generated raising questions about whether they were evaluating students’ actual writing abilities or simply their skill in using AI tools. In fact, the mere polishing can misrepresent the student’s actual level of ability as noted by a student participant: *“Sometimes the answers sound too perfect and may not show the real level of the student.”* When it comes to generating entire texts, it raises a serious issue with the ethical use of AI in academic writing as agreed by many scholars (Athaluri et al., 2023; Cheng et al., 2025). Not being able to clearly distinguish between authentic student work and AI-generated content can undermine also the value of genuine effort. As one teacher noted, *“Some students do devote effort to express ideas, but when merged with AI content, authenticity becomes at risk.”* This situation can lead to wrongful accusations and damage both student trust and the integrity of assessment (Rudolph et al., 2023; Biondi-Zoccai et al., 2025). Another concern was the lack of effective tools to detect or trace AI-generated content. Scholars (Karnalim, 2024; Giri, 2025) are even more concerned about the effectiveness of detection tools as the new LLM models (e.g GPT-4, Claude, Gemini) outpace the capabilities of detection tools. In addition to all this, there is no consensus among educators regarding the legitimacy of AI use for support tasks such as editing or proofreading, further complicating assessment practices in this new digital era.

Additionally, the limited duration of viva voce examinations, typically 45 minutes for the entire defense, was seen as a constraint, preventing thorough interrogation of the student’s work. Teachers noted that within this time frame, they were often only able to ask one content-related question, limiting their ability to evaluate originality and depth of understanding. Knowing that in the era of Gen AI tools, AI-resistant tasks (Khlaif et al.,

2025) such as oral evaluation are highly important to counterbalance artificial content and ensure credibility of the assessment measures. In the same vein, Rožek (2025) argued that universities' assessments formats are based on time-pressured exams that promote surface-level recall rather than critical thinking and deeper engagement.

In addition to assessment-related issues identified in this study, clear policies regulating the ethical use of Gen AI tools in academic writing are missing. Students showed that they were unaware of the academic consequences following the use of AI tools in their dissertations. Sixty percent of them expressed their fear of being penalized for using ChatGPT, particularly given that 90% reported that their dissertation jury disapproved of its use. Thus, out of possible consequences, 60% of students admitted they did not disclose their use of Gen AI tools during the dissertation writing process. The case of the supervised students whose progress was tracked is an example. After finalizing their dissertations, the students themselves initiated an email exchange expressing anxiety about the legitimacy of their work. The students' concern about whether AI use might lead to disqualification highlights the institution's lack of formal guidelines about AI use in Master's dissertation. Due to this void in policies governing AI-generated content, the supervisor also advised the students to submit their finalized dissertation despite detecting an overreliance on ChatGPT in producing it. This incident highlights a gap between technological advancement and institutional readiness, an issue that must be addressed as part of a broader set of solutions. These will be discussed in detail in the final section addressing the third research question.

Research Question 3

5.3 What strategies or alternatives do students and teachers propose to uphold academic integrity in AI-assisted academic writing?

In response to the challenges posed by the use of generative AI in academic writing, there is growing support for the development of new assessment methods. Notably, 90% of students believed that the lack of explicit criteria for AI-supported master's dissertation writing contributed to examiners' disapproval of such work. A large majority of students (70%) called for updated evaluation rubrics that recognize AI assistance, with a strong emphasis on ethical use (40%) and clear disclosure or transparency (40%). Transparency is fundamental because students clearly declare when and how AI tools were employed which allows supervisors and examiners to assess the true extent of student input and to verify adherence to ethical standards. This sentiment was echoed by teachers, who also advocated for revised assessment practices.

They more significantly emphasized the need for criteria that prioritize ethical considerations (80%), reflecting growing institutional concern about plagiarism and unacknowledged machine-generated content. They also highly advocate to incorporate supervision-based reports which includes students' initial drafts and the progression of their work (80%). Tracking students' writing progress plays a crucial role in distinguishing genuine learning from machine outputs and offers concrete evidence of students' efforts and progress. Critical thinking and originality remain central (30% of students, 60% of teachers), as academic work should reflect independent thought, not just polished output. Besides, work that relies heavily on AI-generated content without meaningful student engagement undermines the intellectual development academic institutions seek to foster as argued by Khan (2023).

A balanced use of AI (20% of students, 60% of teachers) is also important to support clarity and structure provided the intellectual work is student-driven. Thematic analysis of students' responses revealed a consistent understanding that the key to benefiting from AI lies in its responsible and informed use. Students repeatedly stressed the importance of knowing how to use AI tools wisely as support for correcting and refining language and not allowing these tools to replace the actual process of academic writing as one student noted: *"It can be used for correcting, but not for writing."* Responsible use, they noted, helps avoid plagiarism, over-reliance, and the loss of personal voice. Unfortunately, in our study, this aspect (proofreading) was equated only with 10% of the students as most of their work was either AI-generated or paraphrased and the most important academic tasks such as reviewing the articles and synthesizing the literature were mostly performed by Gen AI tools. This urges institutions to come up with clear guidelines about the AI use in Master's dissertations based on dimensions that form a comprehensive, ethically grounded approach to assessing academic work in the era of ChatGPT. These dimensions are: disclosure, AI transparency, balance between human work and machine assistance taking into account originality, critical thinking, deep understanding of content and most importantly students' progress over time that can enable distinguish between genuine work and machine output.

All these solutions perceived by students and teachers show that traditional standards and assessment rubrics need to be updated. Several scholars claim that in the era of Gen AI tools focusing solely on linguistic and textual features no longer hold. Instead, they call for designing AI-resistant assessment (Khalif et al., 2025) and less time-pressure based formats (Rožek, 2024) to account for evaluating students' critical thinking and deep engagement with content (Cotton et al., 2024). Such types of assessment will reduce reliance on AI in producing content and focus on skills which emphasize tasks that minimize students' reliance on Gen AI tools. These assessments aim to prioritize skills that AI cannot mimic, such as creativity, critical thinking, ethical reasoning, and independent judgment.

AI-resistant tasks are typically process-driven and include reflective writing, oral examinations, and authentic, inquiry-based assignments (Donaghy, 2023). Such approaches emphasize the learning process over the final product, encouraging students to build enduring academic and cognitive skills (Abubakar et al., 2024; Khlaif et al., 2025). For example, a widely recommended practice is the evaluation of students' drafts prior to final submission. This allows instructors to identify possible signs of AI-generated content and provide timely feedback. Such an approach not only aids in detection but also reinforces formative assessment practices that are proven to enhance student learning outcomes (Cotton et al., 2024; Gewaltig, 2024). It also reflects a broader pedagogical stance: integrating AI tools responsibly to support rather than replace traditional educational practices (Holmes et al., 2019; Gupta, 2024).

6. Conclusion

This study highlights the extensive use of generative AI tools, specially ChatGPT, by Master's students across nearly all stages of dissertation writing. Rather than serving primarily for proofreading, AI is widely used for core academic tasks such as summarizing sources, drafting literature reviews, and discussing findings. This widespread reliance raises serious concerns about the authenticity of student work, as well as the erosion of critical academic skills like independent thinking, creativity, and analytical writing. Evidence from teacher feedback and supervision reports confirms that in many cases, AI-generated content replaces rather than supports the students' cognitive efforts.

While students acknowledge the advantages of AI tools such as time-saving, improved clarity, and language enhancement, they also recognize risks including plagiarism, loss of personal voice, and the spread of misinformation or “AI hallucinations.” Teachers, in turn, express difficulty in distinguishing student input from AI-generated content, which compromises the validity of assessment and the fairness of evaluation. These concerns are exacerbated by the lack of institutional policies and clear guidelines regulating the ethical use of AI in dissertation writing, leading to confusion, anxiety, and inconsistent practices.

To address these challenges, both students and teachers call for updated evaluation criteria that recognize AI's presence while ensuring academic integrity. Key proposals include: transparency about AI use, emphasis on ethical considerations, supervision-based progress tracking, and a stronger focus on originality and critical thinking. In particular, teachers advocate for AI-resistant assessment approaches such as reflective writing, oral examinations, and the evaluation of students' writing progression over time. These methods prioritize skills that AI cannot replicate and help differentiate genuine academic effort from machine-generated output.

Ultimately, the findings point to an urgent need for higher education institutions to rethink traditional assessment models. Without clear frameworks and ethical guidelines, the use of AI risks undermining both learning and evaluation. Institutions must develop new rubrics and policies that promote responsible AI integration while preserving the core values of academic work that is authenticity, intellectual development, and critical engagement.

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