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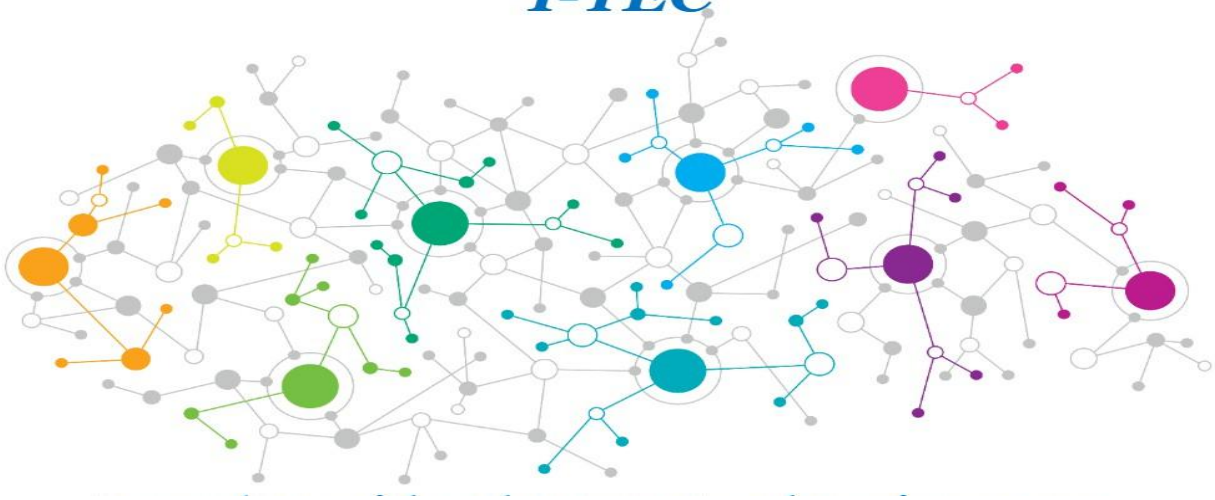

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Supervisory versus ChatGPT's Feedback in Doctoral Supervision: A Comparative Study at Mohamed I University in Oujda

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Abstract

This study explores doctoral students' comparative perceptions of AI-generated versus human feedback. It examines how doctoral students perceive ChatGPT-generated feedback compared to traditional supervisory feedback. Specifically, it evaluates feedback quality standards like clarity, relevance, accuracy, consistency, contextuality and comprehensiveness. It also investigates how these two different sources of feedback influence students' satisfaction with their research practices and progress. Data were gathered through WhatsApp application by interviewing fifteen doctoral students who belong to the English departments of Mohamed I University in Oujda. The findings indicate that ChatGPT's feedback is favoured for its clarity and immediacy while supervisory feedback is characterized by its relevance, contextuality, accuracy, and consistency. Supervisory feedback is perceived to be more engaging and contextually appropriate. ChatGPT's feedback offers advantages in immediate accessibility and clarity but lacks the engagement and the nuanced contextual awareness of human supervision. The findings highlight the need for a balanced approach that integrates AI-driven feedback critically and ethically with traditional supervisory engagement.

Keywords: Feedback, doctoral supervision, artificial intelligence, ChatGPT

1. Introduction

1.1 Background of the study

The role of feedback is essential in the process of doctoral supervision. It is multidimensional as a form of pedagogy; It can direct doctoral students to be on the right track, instil motivation and stamina in them, reinforce good practices and construct positive practices through critical comments. Feedback can be given on the margins of given drafts, orally in face-to-face meetings or through technology-mediated tools like Emailing, social media applications or video calling platforms. Supervisory feedback is also a valuable tool to build healthy relationships between supervisors and doctoral candidates. Delivering regular and timely feedback means the two parties are collaborating together to produce a quality thesis at the end of the journey. The ultimate aim of feedback in postgraduate supervision is to not only facilitate learning and project completion but also to engender a sense of satisfaction in students.

Our core focus in this article is on contrasting human supervisory feedback with AI-generated feedback doctoral students get from AI tools, mainly from ChatGPT's feedback. As the main difference, supervisory feedback is more influenced by the personal attributes and experiences of the supervisor and less by the supervisee's input. By contrast, ChatGPT's feedback is influenced by the prompts and the keywords the student researcher provides while accessing these generative AI tools.

1.2. Purpose, Significance, and Scope of the Study

As a comparative study of ChatGPT's and traditional supervisory feedback, an important gap in the literature is the lack of qualitative studies with a deeper insight into the students' perceptions and experiences; most previous studies focused primarily on supervisors' perspectives ignoring the role of students as active participants in the phenomenon. Most existing research, being quantitative or qualitative, provides supervisors' insights but lacks the perspective of students as the center of the feedback process.

Based on the principles of student-centered learning and self-regulated learning (Zimmerman 2002), understanding how students perceive and are affected by feedback, whether from their direct supervisors or from ChatGPT is essential. This gap in the literature suggests a need for more balanced research that includes both qualitative interviews and a focus on students' experiences within the context of thesis writing and academic development. Addressing this gap could lead to more effective feedback practices in educational settings, combining the rapid, detailed responses of ChatGPT with the nuanced, experiential approach of human supervision.

This research could importantly contribute to establishing a complementary approach to using both sources of feedback critically and ethically.

2. Literature Review

With the emergence of generative AI today, doctoral students and researchers have a wide access to AI tools seeking feedback to improve their writing quality and academic skills. AI tools like Grammarly, ChatGPT, or other academic-specific platforms can help students refine grammar, clarity, coherence, and structure. Students can also request help about finding appropriate references and the methodology to be employed in their research papers. These tools are ubiquitous and provide immediate feedback, which is especially useful during early drafting stages or when supervisors are unavailable. They can also support students to progress between supervisory meetings. Some supervisees cannot reach their supervisors easily or they feel it is annoying to consult their supervisor on every detail; hence, they find AI tools more accessible and more useful.

Based on the reviewed literature, most of the human supervisory feedback is instructional and developmental in nature. Supervisors provide instructional feedback on the quality of academic writing and research methodology, and developmental feedback to enhance the growth of the researcher's identity. Developmental feedback is linked to the progress and performance of the researcher within the process of supervision (Herden and Clarence, 2024). By contrast, AI-generated feedback is technology-mediated; the student researcher interacts with the chat inbox which relies on prompts to provide feedback. The Chat inbox uses algorithms to search the internet database and produce consistent feedback outputs provided the prompt is not modified. But the feedback provided, though consistent, is standardized and can be received by any researcher who uses the same prompt, no matter how the doctoral student is progressing or at which phase of the doctoral journey he is working. The AI tool provides instant feedback but does not know the researcher's context of research and cannot accompany or follow up the researcher's progress within the supervision process.

Recent studies report that traditional supervisory feedback is valued for its engagement, established relationships and contextual relevance. By contrast, AI-generated feedback, particularly ChatGPT's feedback, is gaining attention for its clarity and accessibility. In a quantitative study on contrasting human supervisory feedback with ChatGPT's feedback against certain quality standards of feedback like clarity, relevance, accuracy and consistency, Bouzar et al., (2025) indicate that ChatGPT's feedback was rated higher in clarity than supervisory feedback, but lower in relevance, accuracy, and consistency. Supervisory feedback

was perceived as more engaging and contextually appropriate. The supervisor relates the feedback details to the context and progress the student researcher makes in the doctoral journey. These details and nuances are missing in ChatGPT's feedback. The supervisor also has the potential to tailor the feedback according to the changing context of next meetings. As a recommendation, Bouzar et al., (2025, p. 465) state: "AI-generated feedback offers advantages in accessibility and clarity but lacks the engagement and contextual awareness of human supervision. While AI tools can supplement academic guidance, they should not replace the critical thinking, personalized mentorship, and nuanced evaluation provided by human supervisors." This perspective was based and concluded mostly from quantitative studies; qualitative studies and perspective are rare in this research area and that is why we have opted for a different research method.

3. Method

This study employed a qualitative research design, utilizing semi-structured interviews to explore the perceptions and experiences of doctoral students with receiving feedback from both their supervisors and AI-generated tools, mainly ChatGPT. A qualitative approach was chosen due to its ability to capture the rich, nuanced interactions between supervisors and students, particularly in relation to feedback delivery. Given the complexity of feedback processes which involve personal dynamics, cultural sensitivity, and academic expectations qualitative methods are ideal for uncovering the in-depth perspectives of doctoral students.

Semi-structured interviews, in particular, allowed participants to share detailed insights into their feedback practices and challenges while maintaining the flexibility to explore emerging themes. This approach was selected because it facilitated open dialogue, enabling participants to express their unique experiences with feedback in a conversational yet structured format, which is crucial for understanding the multifaceted nature of supervisory relationships. Moreover, semi-structured interviews provide the opportunity to delve deeper into the participants' subjective experiences, offering a more comprehensive understanding of how feedback is perceived, delivered, and responded to within the Moroccan educational context.

3.1. *Sample and participants*

In this qualitative study, I investigated how postgraduate students of the English department have access to and evaluate ChatGPT's feedback as compared to supervisory feedback at Mohamed I university. I interviewed 15 doctoral students who belong to different laboratories of English literature, linguistics, media and cultural studies. Two of them were female

researchers; the other thirteen students were male. These students were in the process of writing their dissertations and received feedback from their supervisors on their doctoral research; they also had access to generative AI tools, mainly ChatGPT. Most of the students were in their second and third years of study. The interview questions targeted the push factors that encouraged students to request feedback from such tools and the quality standards that best describe AI-generated and supervisory feedback.

All participants gave their informed consent to take part in the interviews and accepted to be recorded while being interviewed. Ethical considerations were rigorously upheld, including voluntary participation, the right to withdraw at any time, and the assurance of confidentiality and anonymity. Participants were assured that their responses would be kept confidential and securely preserved. Anonymity was maintained throughout the study, and all data were handled in accordance with ethical research standards.

3.2. Data collection and procedures

Data collection relied on two main sources: face-to-face and WhatsApp application interviews. The former way stood as the core source of information. It allowed for more interaction and more closeness to the study participants. The second source allowed for reaching students who were physically far away from the interviewer; they could not sit for a real interview. I used WhatsApp video calling to interact with them. Ten interviews were real and face-to-face; the five remaining interviews were conducted through the WhatsApp video calling tool.

These interviews lasted between 30 to 40 minutes and were conducted in a conducive environment to ensure participants felt comfortable sharing their experiences. The interview guide included open-ended questions to allow for flexibility and the exploration of emerging themes.

3.3. Research Questions

For the purpose of this study, this research was based on the following questions while conducting semi-structured interviews:

1. As a doctoral student, do you access AI tools like ChatGPT to obtain feedback? If so, on what aspects of your research process/content?
2. Do you think traditional supervisory feedback is inadequate/unsatisfactory? And that’s why students access AI tools for more feedback?
3. What are the factors that push students to seek feedback from AI-generated feedback?
4. How do you value the feedback provided by ChatGPT on your doctoral studies?
5. Which quality standards below best describe ChatGPT's feedback? (Clarity, accuracy, comprehensiveness, relevance, consistency, accessibility, contextuality)

6. Using the same qualities above, which ones best describe human supervisory feedback?
7. Do you think AI-generated feedback will replace human supervisory feedback?
8. Doctoral students use prompts to interact effectively with ChatGPT inboxes. Do you think this is an effective way to generate human-like interactivity, engagement, and adaptability that characterize real supervisory feedback conversations?

The above listed questions were based on the quality standards that constitute the principles of effective feedback practices, mainly contextuality, clarity, accuracy, comprehensiveness, relevance, consistency and accessibility. These quality standards are often investigated in educational research; they stand as core principles that can boost the quality of thesis writing and enhance the progress of the student researcher.

4. Results

The findings of the study uncovered certain push factors that encourage students to seek feedback on AI platforms; certain factors relate to accessibility, immediacy, detailed feedback responses, inadequacy of supervisory feedback, time-saving, impersonalization and desire for different perspectives. One study participant stated in this regard:

> I think AI-generated feedback is accessed for many reasons, mainly accessibility and impersonalization. They can access AI tools anytime anywhere, and they don't feel the social pressure felt in traditional supervisory meetings as they know machines cannot be bothered.

The study also revealed that supervisory feedback is viewed as contextualized, interpersonal, nuanced, comprehensive and developmental for the researcher. This finding confirms what has been found in quantitative research; questionnaires' data revealed the contextuality and the interpersonal nature of supervisory feedback. By contrast, AI-generated feedback is accessed for its immediacy, accessibility and detailed responses. Students find AI-generated feedback as more consistent and clearer because it provides detailed feedback. Some students seek feedback on these smart platforms to improve their work before they submit the drafts to their supervisors. In this regard, one participant stated: "students get feedback from ChatGPT tool when they want to have an idea about the quality of their work before sending it to their supervisor. Students, this way, can reduce and edit grammar errors before being seen by the supervisor."

The findings also indicated that AI-generated feedback is used mainly for surface-level modifications on the work, while supervisory feedback can be conceptual, critical, constructive,

strategic, reflective, long-term and bound to the phases of the doctoral progress. AI-generated feedback cannot support the developmental process of the researcher. One study participant stated:

Using prompts with ChatGPT can simulate some aspects of interactive engagement. However, it is important to note that AI lacks emotional intelligence and cannot respond to the subtleties of body language, tone, or personal experiences. It cannot apply the adaptability and responsiveness of human feedback, especially in the context of a long-term research project.

4.1.Themes developed from the interviews

Complementary role of ChatGPT's feedback in research

Students use AI for feedback on clarity, structure, summarization, and idea generation as a complementary tool that supports the feedback delivered by supervisors. AI generated feedback acts as a supplement, not a replacement, for human supervision. Students sometimes feel the feedback of supervisors is limited and short. The latter do not have enough time to provide detailed feedback on every aspect of the research process; hence, researchers find it more accessible to get immediate and quick feedback from AI tools. To confirm this role of AI generated feedback, one study participant clearly stated:

AI-generated feedback will or cannot fully replace human supervisory feedback, especially in research-heavy fields like doctoral studies. AI can serve as a valuable supplement, helping students improve writing and get quick suggestions. However, human supervisors provide critical mentorship, nuanced feedback, and a deep understanding of the student's research goals and intellectual development that AI cannot replicate.

ChatGPT's feedback and autonomy

Doctoral students cannot remain dependent on their supervisors during the whole research journey. Students can, therefore, volunteer to seek feedback on their own. Students view AI as a helpful resource to fill gaps and promote self-learning. Consequently, these young researchers can gradually take responsibility for developing research skills and competencies. Students can improve the quality of their dissertation and boost their research skills through their critical evaluation of the feedback they get from AI tools.

Interaction dynamics

AI prompts can mimic some interaction features of human supervisors but they cannot replicate the social and emotional richness of human supervision. Effectiveness in generating feedback from AI tools depends on how students use prompts and on which keywords they use. Often, students have to provide and describe the whole context of their research queries in order to

obtain relevant feedback. Effectiveness in human supervision depends on the supervisory relationship and on the depth both supervisors and students delve into. Both parties become experts of the research topics and both can learn from each other.

4. Discussion

The findings of this study align meaningfully with several theoretical constructs, particularly those related to feedback literacy, self-regulated learning, and sociocultural theories of learning. These frameworks help contextualize students' use of AI-generated feedback as both a pragmatic response to academic needs and a reflection of deeper shifts in learner autonomy and feedback ecosystems.

Feedback literacy foregrounds students' ability to understand, interpret, and use feedback effectively (Carless & Boud, 2018). The study's findings suggest that doctoral students demonstrate growing feedback literacy by strategically using ChatGPT tool to get detailed, immediate, and accessible responses. These characteristics of AI feedback—immediacy, clarity, and surface-level guidance—fulfill students' need for quick revisions and grammatical improvements. As one participant noted, AI feedback serves as a preliminary filter before involving supervisors, highlighting how students are developing skills to manage and sequence multiple feedback sources. This echoes Carless and Boud's emphasis on the learner's proactive role in engaging with feedback to enhance their work.

Closely related is the concept of self-regulated learning (SRL), particularly Zimmerman's (2002) model which emphasizes forethought, performance, and self-reflection phases. The use of AI feedback aligns with the performance and self-reflection phases, as students take initiative to evaluate and revise their work autonomously. The finding that students use AI to gain clarity and improve drafts before meeting their supervisors reflects strategic planning and self-monitoring as key aspects of SRL. Additionally, the notion that students use AI to fill in the gaps when supervisors are unavailable or provide limited feedback underlines a growing sense of learner agency and independence.

The study also reveals the shortcomings of ChatGPT's feedback, particularly its inability to foster deep, dialogic, and relational engagement, as emphasized by sociocultural theories of learning (Vygotsky, 1978). Supervisory feedback, in contrast, is valued for its contextualization, interpersonal nuance, and developmental guidance; these qualities are rooted in the relational co-construction of knowledge. These features are particularly important in doctoral research, where mentorship, intellectual dialogue, and mutual learning stand as the backbone of academic

growth. The human supervisor's role in scaffolding the learner's zone of proximal development (ZPD) remains irreplaceable, especially when feedback must respond dynamically to personal, disciplinary, and emotional needs and contexts.

The highlighted theme of interaction dynamics further illustrates the difference in affordances between ChatGPT's and human feedback. While the former can simulate certain features of dialogic engagement through tailored prompting, it lacks the emotional intelligence, tacit understanding, and adaptability intrinsic to human interaction. This distinction reinforces sociocultural insights that learning is inherently situated and mediated through social interaction, which AI, despite advancements, cannot yet fully afford.

Lastly, the theme of autonomy aligns with both SRL and feedback literacy models, reflecting a shift from dependency to learner ownership. The notion that students gradually assume agency and responsibility for their academic development through independent engagement with AI feedback illustrates the potential of AI tools to support metacognitive development and self-efficacy. However, the findings also caution against overreliance on AI, acknowledging its supportive rather than substitutive role in doctoral supervision.

From a critical perspective and ethically speaking, ChatGPT's feedback can be helpful when combined with supervisory input for deeper conceptual and methodological guidance. It can be used for first-draft refinement, language polishing, or clarity improvements. To resist plagiarism and obtain authenticity in writing, AI generative tools can be approached critically; students should use AI-generated feedback as a supplement but not as a substitute. AI can stand as a powerful tool but it cannot replace the close human supervision applied by doctoral supervisors; it cannot yield the contextual nuances and the human follow up supervisors implement to support their supervisees. When integrated wisely into the doctoral process, AI tools can save time, improve the quality of writing, and enhance confidence. But academic judgment and assessment, original independent thinking, and mentorship remain in the realm of human supervisors.

Novice researchers may think that AI generators open new horizons for the future of research and knowledge, but if we analyze their contributions and how they produce knowledge, we can find that they do not offer data or information that are based on human experiences or related to specific human realities. The danger with AI tools is that they manipulate information through decontextualized processes like prediction, inference and decision-making. These processes are inherently epistemic because they generate human-like information, but these systems are disconnected from the real world and they are conceptually unconscious of the nuanced human judgements (Alvarado, 2023).

What can this imply for doctoral education is that students should be aware of the real nature of artificial intelligence and should engage with it responsibly and reflectively. Doctoral programs need to integrate these AI tools into research practices critically and ethically as well. Doctoral education should build students' awareness to undermine and examine the hallucinating errors and address the hidden biases that AI models adopt in their systems. If it is inevitable to use AI in research today, then, students should be oriented towards the quality standards that can enhance academic research and preserve human creativity and integrity. Doctoral students can be positioned to navigate and develop their critical thinking and reflection in this AI-driven academia. Henriksen et al. (2025) suggest that educational doctoral programs have to support AI use that encourages and pushes human creative thinking forward, not replacing but augmenting it. AI tools cannot be allowed to undermine or eliminate human values like empathy, integrity, deep contextual understanding and ethical reasoning. Otherwise, research will lose its value and will contribute to spreading misleading deceptive content. Since Generative AI, as an epistemic technology, can impact the nature of knowledge in education, institutional policies need to adapt doctoral education curricula to include digital criticality and humanistic awareness to navigate the ethical and practical challenges posed by AI.

In short, the findings affirm a complementary relationship between ChatGPT's and human supervisory feedback, where each fulfills different roles within the broader feedback ecology. Feedback literacy and SRL theories help explain students' strategic use of AI for surface-level revisions and autonomous learning, while sociocultural theories underscore the irreplaceable value of human feedback for conceptual development, emotional support, and disciplinary enculturation. This blended use of feedback sources signals an evolving academic landscape in which doctoral students need to actively and critically navigate between technological affordances and human mentorship to advance their research competencies.

4.1. Implications of the Study

The study findings lead us to state some of the implications for the community of researchers and for research institutions. First, the main implication of this paper concerns the reshaping of feedback ecosystems in doctoral research. The results highlight the evolving nature of feedback practices in academia. AI platforms like ChatGPT are emerging as complementary tools within the doctoral supervision ecosystem. This implies a shift toward reimagining a multi-modal feedback structure, where human and AI feedback co-exist to support different phases of

research development—AI for surface-level, corrective and immediate feedback, and human supervisors for conceptual, strategic, and developmental feedback.

Second, the use of AI tools like ChatGPT empowers doctoral students to take a more autonomous and voluntary role in organizing their learning and writing processes. This reflects a growing trend in self-regulated learning, where students proactively seek resources, reflect on their work, and engage in iterative improvements before supervisory meetings and engagements. Academic programs might consider incorporating training on critical AI use to encourage responsible and effective self-guided learning.

Third, the findings suggest that time constraints or workload of supervisors may limit the depth and frequency of supervisory feedback meetings. AI tools can help bridge these gaps, especially during early writing stages or when immediate input is needed. However, this also signals a need for institutions to evaluate supervisory workloads and provide support structures that ensure consistent and quality mentorship.

Fourth, as AI becomes more embedded in academic practices, there is a clear call for formal academic training for doctoral students on how to use these tools ethically, effectively, and critically. Universities should develop guidelines, booklets and workshops that address issues such as data privacy, limitations of AI, overreliance drawbacks, and the importance of human judgment in evaluating AI-generated suggestions.

Finally, despite its added value and within this hybrid feedback literacy, AI feedback cannot replicate the emotional intelligence, relational depth, and contextual sensitivity of human supervision. Supervisors' support and mentoring remain essential for guiding students through complex intellectual, emotional, and professional development processes. Institutions should avoid viewing ChatGPT or any other AI tool as a replacement for human supervision but rather as a strategic supplement.

4.2.Study Limitations

Like many other studies, this qualitative research has some limitations which can call for further research. First, this study is a small-scale investigation on doctoral students who belong to the English department of Mohamed First University in Morocco; interviewing other students from other universities and including other departments can yield better results and can enrich the data variety. Second, the study used only semi-structured interviews as a method; other research instruments like observation and questionnaires can enrich the findings. Third, the study

targeted only doctoral students' access to AI-generated and supervisory feedback. Other research groups are also important informants in the research under investigation like MA students and doctoral supervisors. As a fourth and last limitation, the study focused only on ChatGPT's feedback; investigating other AI tools and platforms can enrich the data and can inform us more about how doctoral students explore these sources to obtain feedback and guidance in their doctoral journey.

5. Conclusion

This study explored doctoral students' perceptions and use of ChatGPT's feedback, particularly in relation to traditional supervisory feedback. The findings revealed a growing interest in using this smart tool as a complementary resource that supports academic writing and promotes student autonomy and initiative to seek feedback elsewhere. ChatGPT's feedback was appreciated for its immediacy, accessibility, and detailed responses, especially for surface-level improvements such as grammar, clarity and structure.

However, its limitations, particularly in addressing the emotional and psychological aspects of learning and the risk of overreliance, highlight the importance of applying critical and ethical reflection while accessing these tools, and maintaining a balanced approach that leverages the strengths of both AI and human interaction in educational settings, mainly in the processes of postgraduate research.

Participants emphasized the fact that ChatGPT's feedback cannot replace the nuanced, contextual, and developmental feedback provided by human supervisors. Supervisory feedback remains essential for supporting students' intellectual growth, strategic thinking, and long-term research progression. The social and emotional dynamics embedded in supervisory relationships also remain beyond the capabilities of current AI technologies.

Overall, this small-scale research paper underscores the emergence of a hybrid feedback model in doctoral education—one that combines the strengths of both human and AI input. For this model to be effective, students must develop their critical awareness to face the limitations and appropriate uses of AI tools. Research centers and universities must continue to invest in high-quality supervision and provide training for ethical, effective AI integration in research practices.

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