Journal of Posthumanism
2025
Volume: 5, No: 6, pp. 2945–2953
ISSN: 2634-3576 (Print) | ISSN 2634-3584 (Online)
posthumanism.co.uk

DOI: https://doi.org/10.63332/joph.v5i6.2414

Human-AI Collaboration in Curriculum Reform: A Posthuman Investigation into AI Driven Class in Chinese University

Haitao Wang[1], Hangxuan Zhao[2], Yiwei Li[3], Hailong Zhang[4]

Abstract

As artificial intelligence (AI) technologies become increasingly integrated into higher education, university instructors are compelled to navigate shifting pedagogical landscapes and reconfigure their professional identities. This qualitative study investigates how university teachers in China perceive and negotiate their roles in AI-mediated classrooms, using a posthumanist theoretical framework to explore human–machine entanglements in pedagogy. Drawing on semi-structured interviews with six instructors across diverse disciplines, the study identifies three emergent orientations toward AI: as an assistant, a collaborator, and a threat. The study demonstrates how AI integration provokes both pragmatic adaptation and deep-seated identity renegotiation, underscoring the affective, ethical, and epistemological tensions of educational transformation.

Keywords: *Posthuman Pedagogy, Artificial Intelligence, Teacher Identity, Human–Machine Collaboration, Higher Education, Qualitative Study.*

Introduction

The rapid integration of artificial intelligence (AI) into educational environments is reshaping the landscape of teaching and learning (Zootzky & Pfeiffer, 2024; Lytras et al., 2024). From automated grading systems and personalized learning platforms to generative language models such as ChatGPT, AI technologies are increasingly embedded in the daily routines of educators and students alike (Klašnja-Milićević & Ivanović, 2021; Gambo et al., 2025). These tools promise to enhance instructional efficiency, reduce administrative burdens, and foster new forms of learner engagement. However, the expanding presence of intelligent systems in the classroom also raises fundamental questions about the role, identity, and agency of the teacher (Lan, 2024; Dimitriadou & Lanitis, 2023). As AI systems become capable of performing tasks traditionally reserved for human educators—such as content delivery, formative assessment, and even student feedback—the contours of pedagogical labor are being redefined in real time.

While much of the current discourse on AI in education focuses on technological efficacy and implementation strategies, less attention has been paid to the ontological and affective dimensions of teaching in the age of AI (Cope et al., 2021; Lameras & Arnab, 2021). Specifically, how educators perceive their evolving roles in AI-mediated environments remains underexplored. Do teachers view AI as a threat, an assistant, or a collaborator? What emotions,

[1] School of Nursing, Army Medical University, Chongqing, China, Email: sharedemali@outlook.com
[2] King's College London Arts & Humanities, London, UK, Email: hxmason0817@gmail.com
[3] Shanghai Zhongqiao vocational and technical University, Shanghai, China, Email: yiwli@chapman.edu
[4] Russian Presidential Academy of National Economy and Public Administration, Moscow, Russia, Email: zhanghailong.student@outlook.com.

tensions, and ethical dilemmas arise when AI systems begin to participate in meaning-making processes once considered uniquely human? Addressing these questions is crucial not only for effective AI integration, but also for preserving the relational and reflective dimensions of pedagogy.

Despite the growing interest in AI-enhanced learning, there is a notable gap in the literature concerning the posthuman reconceptualization of the teacher's role. Existing studies often adopt instrumentalist or techno-centric perspectives, overlooking the theoretical and philosophical implications of human–machine entanglement in educational contexts. This study aims to fill this gap by examining how university educators interpret and negotiate their teaching identities in the presence of AI, using a posthumanist theoretical framework. Through in-depth qualitative interviews, this research explores the multiplicity of teacher responses—from acceptance to anxiety—and theorizes these reactions as expressions of emerging posthuman subjectivities in contemporary higher education.

Literature Review

Teachers' Role in AI Era

The role of teachers in the context of AI-driven educational transformation is evolving, with a consensus that AI will augment rather than replace educators. AI tools are increasingly recognized as essential for student success, highlighting the importance of human-AI collaboration in educational settings (Edwards et al., 2025). This collaborative potential is further emphasized by the notion that AI can support teachers in delivering personalized learning experiences, which are crucial for effective education (Jiang et al., 2023). AI's capacity to excel at providing tailored support allows teachers to focus more on pedagogical and relational aspects of teaching, thereby transforming their traditional roles (Qureshi, 2025; Jiménez, 2024).

Several studies underscore that AI enhances teachers' ability to manage large and diverse classrooms by automating administrative tasks and reducing cognitive load, which enables educators to dedicate more time to individual student needs. This digital transformation also involves developing new tools, such as teacher dashboards, that reveal interaction patterns and facilitate data-driven decision-making, further empowering teachers in their roles (Schifter et al., 2014).

Despite these advancements, challenges remain, including addressing the diverse needs of students and managing high curriculum demands. Teachers are expected to navigate these complexities while integrating AI tools effectively into their practice (Sun & Pratt, 2024; Alam & Mohanty, 2023). The literature suggests that a clear-eyed approach to AI's role—recognizing its strengths in personalization and administrative support—can help teachers leverage these technologies without feeling threatened by automation (Beirat et al., 2025; Yadav, 2025).

Furthermore, policy initiatives and national strategies are increasingly emphasizing AI's importance in education, aiming to eliminate barriers and support teachers in this digital transformation (Cheng & Wang, 2023). Overall, the emerging view is that AI will serve as a transformative partner, enhancing teachers' roles by providing scalable support and enabling more personalized, effective instruction.

Teacher's Readiness and Attitude Towards AI

Teachers with higher levels of AI readiness may have the necessary knowledge and abilities to innovate their work by experimenting with and adapting to opportunities presented by AI (Jöhnk

et al., 2021; Luckin et al., 2022). Innovative attempts may, in turn, improve their work experience and thus job satisfaction (Bhargava et al., 2021). In contrast, those with lower levels of AI readiness may feel threatened, fear that AI may disrupt their work, and thus distance themselves from AI technology (Chounta et al., 2022; Polak et al., 2022).

Although a good level of AI readiness is considered key to successfully integrating AI into teaching (Celik et al., 2022), there is limited empirical knowledge on how AI readiness affects teachers' work. Little is known about whether and how AI readiness differs among teachers of different demographic backgrounds, especially gender and socioeconomic backgrounds. Gender and socioeconomic background have been reported to often lead to differences in the use of traditional technologies (Beaunoyer et al., 2020; Park et al., 2019). Furthermore, given that the ethical use of AI has received widespread attention (Hagendorff, 2020; Morley et al., 2021), it would be beneficial to gain a deeper understanding of the relationship between ethics and other components of AI readiness. Given the increasing use of AI in education to innovate teaching and enhance educators' work experience (Luckin et al., 2022).

Method

Research Design

The current study adopts a qualitative, exploratory research design to investigate how higher education instructors perceive the changing role of the teacher in the context of AI-assisted education. Framed within posthumanist theory, the research explores how teachers position themselves in relation to AI tools and how they interpret their evolving pedagogical agency in a distributed, human–machine learning environment.

Participants

A purposive sample of six university instructors was recruited from different disciplines including humanities, social sciences, and STEM fields. All participants had experience incorporating AI tools (e.g., ChatGPT, automated grading software, AI-supported tutoring systems) into their teaching practice within the past academic year. Participants were selected to ensure disciplinary diversity and a range of AI adoption experiences. All participants agreed the publication of the article. Participants were anonymous and lable as P1, P2,…P6.

Data Collection

Data were collected through semi-structured, one-on-one interviews, each lasting approximately 30 to 45 minutes. Interviews were conducted either in person or via video conferencing, depending on participant availability. Each interview was audio-recorded with participants' consent and then transcribed for analysis. The interview guide was designed around three central themes: 1) How do instructors describe the role of AI in their teaching? 2) Has the use of AI changed how they perceive their role as educators? 3) What feelings (e.g., empowerment, anxiety, resistance) emerge in response to AI integration?

Data Analysis

Transcripts were analyzed using thematic analysis (Braun & Clarke, 2006), allowing recurring patterns and latent meanings in the data to emerge inductively. The coding process followed six phases: familiarization, initial coding, searching for themes, reviewing themes, defining and naming themes, and final reporting. Themes were then interpreted through a posthumanist theoretical lens, focusing on distributed agency, decentered subjectivity, and human–nonhuman

entanglements in pedagogical practice.

To ensure trustworthiness, researcher triangulation was used: two researchers independently coded the data and collaboratively resolved discrepancies. A brief member-checking process was also conducted, allowing participants to review summarized interpretations for accuracy.

Results and Discussion

AI as Assistant: Delegating the Mechanical, Retaining the Human

A dominant theme that emerged from the interviews is the framing of artificial intelligence (AI) as a pedagogical assistant—a tool that automates routine tasks while leaving the more complex, human-centric elements of teaching intact. This perspective was shared by the majority of participants, who viewed AI as a mechanism for reducing their cognitive and administrative burden, thereby allowing them to devote more time and energy to interpersonal engagement and instructional creativity.

Several participants emphasized the instrumental utility of AI in tasks such as grading, feedback generation, and content summarization. For example, one instructor from the humanities stated:

"I use ChatGPT mainly to generate draft feedback for student essays. It saves me a lot of time on repetitive comments like grammar or structure. But I always personalize the final version—it's important the students still feel my presence in their learning." (P2)

Another faculty member in engineering echoed a similar sentiment:

"AI helps me automate quizzes and basic assessments. It's like a second pair of hands. I wouldn't trust it with anything requiring critical judgment, but for objective tasks, it's incredibly efficient." (P5)

These reflections reveal a common division of labor: AI is welcomed in domains perceived as mechanical, repetitive, or impersonal, while core teaching practices—such as mentoring, ethical judgment, and disciplinary interpretation—remain under the exclusive purview of the human teacher. AI, in this configuration, functions as a *supportive appendage* rather than an autonomous agent.

From a theoretical standpoint, this conception of AI aligns with a human-centric epistemology that reinforces the teacher as the primary source of meaning-making. Despite the presence of advanced technologies, the boundaries between human and machine remain sharply drawn. Teachers maintain what Hayles (1999) would call a "liberal humanist" stance, wherein the human subject retains agency and control over nonhuman systems. The AI is not regarded as a thinking entity or pedagogical partner, but rather as a passive tool that enhances human efficiency.

In this way, the role of AI is confined to augmenting the human rather than entangling with it. This instrumentalist framing suggests a residual anthropocentrism, wherein the human teacher is positioned at the center of the pedagogical process, and the machine remains subordinate. Although participants expressed appreciation for the time-saving benefits of AI, there was little indication that they perceived AI as altering the ontological structure of teaching itself. Such views represent an incomplete reconfiguration of pedagogy in the age of AI. While AI tools are being adopted pragmatically, they are not yet conceptualized as co-agents in the educational assemblage. True posthuman pedagogy involves a decentering of the human subject and recognition of knowledge production as a distributed process that includes both human and

nonhuman actors (Braidotti, 2019). In the current findings, however, AI is largely confined to a peripheral role—useful, but not transformative.

This theme thus illustrates an early stage of AI integration into educational practice: one in which the potential for symbiotic human-machine pedagogy is present, but the epistemic and ontological boundaries between teacher and tool remain intact. Future research may explore whether prolonged exposure to AI-enabled environments leads to deeper shifts in how educators understand their roles, responsibilities, and relational agency.

AI as Collaborator

Two participants described a more integrated and relational engagement with AI, wherein the technology is not merely a tool but a collaborative partner in the process of designing curriculum, generating content, and stimulating pedagogical creativity. This shift in perception—from assistant to collaborator—marks a transition toward distributed agency, in which both human and nonhuman actors contribute meaningfully to the learning experience.

Participants in this category emphasized a dialogic relationship with AI systems, engaging with them not only to delegate tasks but also to co-develop teaching materials and classroom strategies. One participant from the social sciences noted:

"When I prepare a new lecture, I often ask ChatGPT to generate counterarguments or examples that I might not have thought of. It's like brainstorming with an intelligent colleague—I don't always take its suggestions, but they help me see the topic from fresh angles." (P1)

Another instructor from education studies elaborated:

"I used AI to help design a set of discussion prompts. It generated some really provocative questions that I refined and brought to class. The students were surprised and intrigued—and the conversations were richer than usual." (P4)

These experiences suggest an emerging form of human–machine co-authorship, in which the AI's generative capacity serves as a stimulus for pedagogical experimentation. In this configuration, AI is no longer viewed as a subordinate entity but rather as a creative interlocutor—a presence that challenges, provokes, and inspires the human educator.

Theoretically, this orientation resonates with Barad's (2003) theory of agential realism, in which agency is not possessed by individuals but emerges through intra-actions between entities. In this view, knowledge production is not the act of a sovereign human subject but a relational process, contingent on the entanglement of human and nonhuman forces. When educators collaborate with AI in this manner, they enact a form of posthuman pedagogy, one that decenters the notion of an isolated, authoritative teacher and foregrounds assemblages of cognition.

This shift also reflects Braidotti's (2019) notion of the *affirmative posthuman subject*—an educator who does not resist technological intrusion, but embraces the opportunity to become-with nonhuman systems in a productive and generative way. Rather than perceiving AI as a threat to their autonomy, these educators view it as an extension of their epistemic and pedagogical imagination.

However, this collaborative posture does not come without tension. Some participants acknowledged concerns about originality, dependency, or ethical ambiguity. Yet even amidst these ambivalences, their narratives reflect a willingness to negotiate shared authorship and reconceptualize teaching as a multi-agent process.

This theme thus signals a conceptual reorientation in teacher identity: not as a singular source of knowledge, but as a node in a network of intelligent agents, both human and machine. While still emergent, this posthuman stance suggests a pedagogical future in which creative cognition is distributed, and the curriculum becomes an evolving co-production across intelligences.

AI as Threat: De-centering the Teacher

While some participants embraced AI as a helpful assistant or creative collaborator, a subset expressed deep concerns about the displacement of the human teacher, signaling emotional resistance and identity destabilization. These instructors perceived AI not merely as a tool but as a potential threat to their professional role, authority, and pedagogical distinctiveness.

Some participants explicitly articulated a sense of loss of relevance in the face of AI's rapidly expanding capabilities. One instructor from a general education course reflected:

"Sometimes when I see what AI can generate—explanations, examples, even grading—I wonder: what's left for me to do? If it teaches better, more efficiently, then am I still needed?" (P6)

Another participant commented on the unsettling speed at which AI is evolving:

"I feel like the ground is shifting too fast. I don't have time to fully understand these tools before the students start using them better than I can. It's disorienting." (P3)

These accounts reveal a disruption in pedagogical self-conception, where traditional signifiers of teaching expertise—clarity, authority, responsiveness—are being challenged by algorithmic systems. The anxiety expressed is not simply about skill obsolescence, but about a deeper ontological uncertainty: What does it mean to be a teacher when machines can emulate core teaching functions?

From a theoretical lens, such narratives point to a crisis of anthropocentric identity. Unlike those who adopt a posthuman perspective that embraces decentered, distributed roles, these educators remain embedded in a model of human exceptionalism, where teaching is conceived as an inherently human domain grounded in empathy, judgment, and moral reasoning. The perceived encroachment of AI into this domain evokes not only professional insecurity but also existential discomfort.

This discomfort aligns with critiques of technological determinism in educational discourse, where AI is often introduced as an inevitable, neutral progression rather than as a socially constructed and value-laden system. Without sufficient institutional support, ethical frameworks, or opportunities for critical reflection, teachers may default to defensive stances, resisting innovation not out of conservatism but due to a lack of meaningful integration pathways.

From a posthumanist standpoint, these responses underscore the need for affective and ethical scaffolding as educators undergo identity transformation. As Braidotti (2013) emphasizes, the posthuman subject is not devoid of vulnerability; rather, she is *becoming* through her relational embeddedness with the technological and material world. Resistance to AI, therefore, should not be dismissed as mere fear, but understood as part of the liminal process of subject reconfiguration in the face of ontological instability.

This theme complicates the narrative of seamless AI integration by highlighting the emotional costs of technological disruption. It also exposes the pedagogical risks of neglecting teacher

agency and affect in conversations around innovation. Without deliberate efforts to co-design AI adoption with educators, and to reimagine teaching as a relational, evolving, and non-exclusive act, the promise of posthuman pedagogy may remain unrealized.

Conclusion

This study set out to explore how university instructors perceive the evolving role of the teacher in the context of AI-enhanced education, and how such perceptions might be reinterpreted through a posthumanist theoretical lens. Drawing on in-depth interviews with six higher education teachers across disciplines, the analysis revealed three distinct orientations toward AI: as an assistant, a collaborator, and a threat. These positions reflect varying degrees of engagement with the ontological and pedagogical shifts brought about by the increasing integration of intelligent systems into educational practice.

Teachers who viewed AI as an assistant retained a traditional human-centered model of pedagogy, in which technology served to automate routine tasks but did not challenge the primacy of the teacher. Those who engaged AI as a collaborator, by contrast, enacted a more distributed and relational approach to teaching, positioning themselves as co-authors in a hybrid knowledge-making process. Finally, educators who perceived AI as a threat expressed anxiety and identity destabilization, underscoring the emotional and ethical tensions that accompany technological disruption in education.

These findings affirm the relevance of posthumanist perspectives in educational research, particularly in framing AI not as a neutral tool, but as an agentive force within complex pedagogical assemblages. By moving beyond binaries of human versus machine, posthuman theory invites a reimagination of the teacher not as a bounded individual, but as a node in a dynamic network of cognitive, affective, and technological relations. Such a perspective challenges institutions to rethink teacher training, curriculum design, and ethical governance in ways that honor complexity, multiplicity, and shared agency.

Limitations and Future Implications

This study is subject to several limitations that should be acknowledged. First, the sample size was relatively small and drawn from a limited institutional and geographical context, which may constrain the generalizability of the findings. While the qualitative design allowed for in-depth insights into educators' experiences, future research could benefit from larger, more diverse samples across institutions, disciplines, and cultural settings to validate and expand upon these themes. Second, the study captured a snapshot of teachers' perceptions during a particular phase of AI adoption, rather than tracing their evolving relationship with AI technologies over time. Longitudinal studies could offer a more dynamic understanding of how posthuman subjectivities and pedagogical practices develop in response to sustained technological engagement.

Future research might also explore how institutional policies, technological infrastructure, and disciplinary epistemologies shape educators' willingness and capacity to embrace AI in posthuman terms. Furthermore, there is scope for participatory or design-based studies that co-create AI integration strategies with teachers, emphasizing agency, ethics, and care. As educational systems increasingly incorporate intelligent technologies, researchers must move beyond functionality to critically engage with the ontological, ethical, and relational dimensions of AI–human collaboration in pedagogy.

References

Alam, A., & Mohanty, A. (2023). Educational technology: Exploring the convergence of technology and pedagogy through mobility, interactivity, AI, and learning tools. Cogent Engineering, 10(2), 2283282.

Ali, W., & Khan, A. Z. (2024). Factors influencing readiness for artificial intelligence: a systematic literature review. Data Science and Management.

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. Signs: Journal of women in culture and society, 28(3), 801-831.

Beirat, M. A., Tashtoush, D. M., Khasawneh, M. A., Az-Zo'bi, E. A., & Tashtoush, M. A. (2025). The Effect of Artificial Intelligence on Enhancing Education Quality and Reduce the Levels of Future Anxiety among Jordanian Teachers. Appl. Math, 19(2), 279-290.

Braidotti, R. (2019). A theoretical framework for the critical posthumanities. Theory, culture & society, 36(6), 31-61.

Braidotti, R. (2013). Posthuman humanities. European Educational Research Journal, 12(1), 1-19.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative research in psychology, 3(2), 77-101.

Bhargava, A., Bester, M., & Bolton, L. (2021). Employees' perceptions of the implementation of robotics, artificial intelligence, and automation (RAIA) on job satisfaction, job security, and employability. Journal of Technology in Behavioral Science, 6(1), 106-113.

Celik, I., Dindar, M., Muukkonen, H., & Järvelä, S. (2022). The promises and challenges of artificial intelligence for teachers: A systematic review of research. TechTrends, 66(4), 616-630.

Cheng, E. C. K., & Wang, T. (2023). Leading digital transformation and eliminating barriers for teachers to incorporate artificial intelligence in basic education in Hong Kong. Computers and Education: Artificial Intelligence, 5, 100171.

Chounta, I. A., Bardone, E., Raudsep, A., & Pedaste, M. (2022). Exploring teachers' perceptions of artificial intelligence as a tool to support their practice in Estonian K-12 education. International journal of artificial intelligence in education, 32(3), 725-755.

Cope, B., Kalantzis, M., & Searsmith, D. (2021). Artificial intelligence for education: Knowledge and its assessment in AI-enabled learning ecologies. Educational philosophy and theory, 53(12), 1229-1245.

Dimitriadou, E., & Lanitis, A. (2023). A critical evaluation, challenges, and future perspectives of using artificial intelligence and emerging technologies in smart classrooms. Smart Learning Environments, 10(1), 12.

Edwards, J., Nguyen, A., Lämsä, J., Sobocinski, M., Whitehead, R., Dang, B., ... & Järvelä, S. (2025). Human-AI collaboration: Designing artificial agents to facilitate socially shared regulation among learners. British Journal of Educational Technology, 56(2), 712-733.

Gambo, I., Abegunde, F. J., Gambo, O., Ogundokun, R. O., Babatunde, A. N., & Lee, C. C. (2025). GRAD-AI: An automated grading tool for code assessment and feedback in programming course. Education and Information Technologies, 30(7), 9859-9899.

Hagendorff, T. (2020). The ethics of AI ethics: An evaluation of guidelines. Minds and machines, 30(1), 99-120.

Hayles, N. K. (1999). The illusion of autonomy and the fact of recursivity: Virtual ecologies, entertainment, and Infinite Jest. New Literary History, 30(3), 675-697.

Jiang, N., Liu, X., Liu, H., Lim, E. T. K., Tan, C. W., & Gu, J. (2023). Beyond AI-powered context-aware services: the role of human–AI collaboration. Industrial Management & Data Systems, 123(11), 2771-2802.

Jiménez, A. F. (2024). Integration of AI helping teachers in traditional teaching roles. European Public & Social Innovation Review, 9, 1-17.

Jöhnk, J., Weißert, M., & Wyrtki, K. (2021). Ready or not, AI comes—an interview study of organizational AI readiness factors. Business & information systems engineering, 63(1), 5-20.

Klašnja-Milićević, A., & Ivanović, M. (2021). E-learning personalization systems and sustainable education. Sustainability, 13(12), 6713.

Lameras, P., & Arnab, S. (2021). Power to the teachers: an exploratory review on artificial intelligence in education. Information, 13(1), 14.

Lan, Y. (2024). Through tensions to identity-based motivations: Exploring teacher professional identity in Artificial Intelligence-enhanced teacher training. Teaching and Teacher Education, 151, 104736.

Luckin, R., Cukurova, M., Kent, C., & Du Boulay, B. (2022). Empowering educators to be AI-ready. Computers and Education: Artificial Intelligence, 3, 100076.

Lytras, M. D., Serban, A. C., Alkhaldi, A., Aldosemani, T., & Malik, S. (2024). Digital transformation in higher education in times of artificial intelligence: Setting the emerging landscape. In Digital Transformation in Higher Education, Part A (pp. 1-22). Emerald Publishing Limited.

Morley, J., Elhalal, A., Garcia, F., Kinsey, L., Mökander, J., & Floridi, L. (2021). Ethics as a service: a pragmatic operationalisation of AI ethics. Minds and Machines, 31(2), 239-256.

Park, C. W., Seo, S. W., Kang, N., Ko, B., Choi, B. W., Park, C. M., ... & Yoon, H. J. (2020). Artificial intelligence in health care: current applications and issues. Journal of Korean medical science, 35(42).

Polak, S., Schiavo, G., & Zancanaro, M. (2022, April). Teachers' perspective on artificial intelligence education: An initial investigation. In CHI conference on human factors in computing systems extended abstracts (pp. 1-7).

Qureshi, I. (2025). The Impact of AI on Teacher Roles: Towards a Collaborative Human-AI Pedagogy. Journal of AI Integration in Education, 2(1), 1-11.

Schifter, C., Natarajan, U., Ketelhut, D. J., & Kirchgessner, A. (2014). Data-driven decision-making: Facilitating teacher use of student data to inform classroom instruction. Contemporary Issues in Technology and Teacher Education, 14(4), 419-432.

Sun, J. C., & Pratt, T. L. (2024). Navigating AI Integration in Career and Technical Education: Diffusion Challenges, Opportunities, and Decisions. Education Sciences, 14(12), 1285.

Yadav, S. (2025). Leveraging AI to enhance teaching and learning in education: The role of artificial intelligence in modernizing classroom practices. In Optimizing research techniques and learning strategies with digital technologies (pp. 211-238). IGI Global Scientific Publishing.

Zootzky, G., & Pfeiffer, A. (2024). Educational transformation through AI: Preparing for a new era of learning. In INTED2024 Proceedings (pp. 1202-1207). IATED.