1 Department of Psychology and Educational Sciences, Faculty of Humanities, Khatam University, Tehran, Iran.
2 Department of English Language and Literature, Faculty of Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran.
3 Department of of English Language and Literature, Faculty of Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran.

Corresponding author email address:
M.hashemi2@khatam.ac.ir

English Language Teachers' Psychological Responses to AI Integration: A Grounded Theory Approach

Marzie. Hashemi[1] iD , Farzad. Ebrahimi[2] iD , Fateme. Hashemi[3] iD
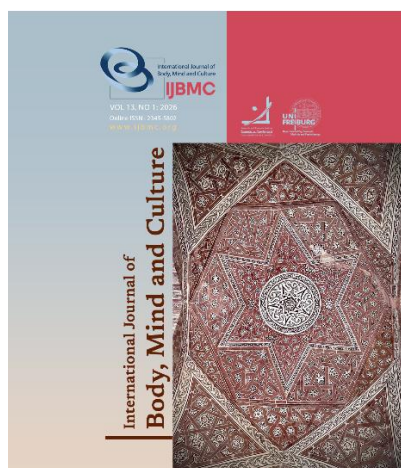
ABSTRACT

Objective: This study explored English language teachers' psychological responses to AI integration and the process through which initial negative emotions evolve with experience and strategic use of AI.

Methods and Materials: Using a qualitative grounded theory design, eight part-time English teachers from diverse institutions were recruited via convenience sampling. Data were collected through open-ended, in-depth interviews. Analysis followed Corbin and Strauss's coding procedures (open, axial, and selective coding) with constant comparison to develop categories and a central explanatory account of teachers' experiences.

Findings: The core category was "Negotiating professional identity in AI-infused classrooms." Two dominant psychological strains—anxiety and fear—were identified. These emotions were primarily rooted in perceived job obsolescence, threats to professional credibility/identity, and uncertainty about teachers' evolving roles. As participants gained hands-on experience, many reported a shift toward strategic engagement, describing improved instructional creativity, reduced workload in routine tasks, higher job satisfaction, and better well-being, while still emphasizing the irreplaceable human elements of teaching.

Conclusion: AI integration can trigger identity-related distress among ELT teachers, yet purposeful, supported use may transform early anxiety and fear into adaptive empowerment. Professional development should address both technical competence and psychological adjustment (e.g., identity-reframing and ethical guidance) to sustain a healthy balance between AI affordances and human-centered pedagogy.

Keywords: Artificial Intelligence (AI), English Language Teachers, Psychological Challenges, AI Integration in Education.

Introduction

The rapid diffusion of AI technologies in the educational sector has significantly reshaped pedagogical and learning practices. Intelligent tutoring systems, virtual assistants, and adaptive learning platforms are increasingly applied within language education, enhancing educational outcomes through personalized learning, improved student engagement, and streamlined administrative tasks. However, substantial psychological challenges, such as adapting to new technology tools, maintaining educational equity, and ensuring students' privacy, also impede the integration of AI. These challenges are further exacerbated by the emotional and cognitive pressures associated with change (Yang, 2024).

Understanding the psychological challenges that AI integration brings to English language teachers is crucial. Firstly, the introduction of AI technologies in the classroom depends primarily on teachers, whose experience and perception determine whether the initiative will work or not. Teachers' readiness and ability to embrace AI tools are determining factors in realizing the full potential benefits these technologies offer to students (Rafael, 2026). Secondly, teachers' psychological well-being is linked to job satisfaction, performance, and overall effectiveness as educators. Therefore, addressing the psychological challenges involved in integrating AI is critical to maintaining high levels of professional efficacy and job satisfaction among teachers (Guo, 2020). Against this backdrop, a closer inspection of the most recent empirical work is warranted.

Building on this imperative to safeguard teachers' well-being, current research highlights the potential of AI to transform language education by increased student engagement, customized learning experiences, and improved learning outcomes (Wang, 2024; Rafael, 2026). However, the integration of AI creates challenges, including the need for teachers to develop new technological skills and face ethical issues such as student privacy and algorithmic bias (Yang, 2024; Kushmar et al., 2022). Moreover, significant gaps remain in areas like non-verbal communication and the emotional aspects of teaching (Sharadgah & Sa'di, 2022). Taken together, these mixed findings set the stage for a

more granular review of specific motivational and pedagogical effects.

Several studies have explored AI's impact on student motivation, language skill acquisition, and teaching methodologies, demonstrating both benefits and limitations (Jia & Zhang, 2021; Moybeka et al., 2023; Zou et al., 2020). AI technologies can enhance intrinsic and extrinsic motivation and create more engaging platforms for language learning. However, concerns about privacy, over-reliance on technology, and maintaining a balance between AI tools and human interaction have been raised (Kushmar et al., 2022; Samarasinghe & Prasangani, 2023). In addition, the need for educators to promote digital skills and confront ethical issues is emphasized (Lameras & Arnab, 2021). Taken together, these unresolved tensions underscore the necessity of shifting the research focus from purely pedagogical outcomes to the psychological well-being of teachers themselves.

Against this backdrop, despite growing study of AI's impact on education, significant gaps remain in understanding how these technologies effect teachers' psychological well-being. While research has explored the technical and pedagogical aspects of AI integration, little consideration has been given to its emotional and cognitive effects on teachers (Sharadgah & Sa'di, 2022). More study is needed to understand teachers' perceptions of the advantages and disadvantages of AI, the challenges they face,, and the coping strategies they utilize (Hwang et al., 2020).

So as AI is integrated into educational institutions at a rapid pace as marked by national policy deadlines (e.g., South Korea, UAE, Netherlands targeting 2025 implementation), this grounded theory study looks for psychological dimensions that are typically overlooked in policy debates. Based on the lived experience of English language teachers, it aims to:(a) specify context-dependent AI integration challenges,(b) illuminate adaptive strategies that enhance teacher well-being. While not generalizable, these findings offer preliminary evidence for the creation of targeted teacher support systems and indicate additional large-scale validation.

Literature Review

The use of Artificial Intelligence (AI) in the teaching and learning environment is rapidly altering the dynamics of teaching and learning, presenting both substantial pedagogical benefit as well as complex

challengesfor educators. This literature review evaluates existing research into artificial intelligence in educational contexts, with particular focus on the psychological impact experienced by English language educators. It explores attitudes, opinions, concerns, and potential benefits of AI use in English Language Teaching (ELT).

The advent of artificial intelligence has proven to significantly reshaped the different aspects of the educational sector. Several research results indicate AI's capacity to personalize learning experiences, automate administrative functions, and provide instant feedback for learners as well as teachers (Altinay et al., 2025). These benefits emerge only when educators apply informed pedagogical supervision; in its absence, adaptive technologies like ChatGPT can reinforce superficial learning and exacerbate digital gaps (Ahn et al., 2024; Altinay et al., 2025; Tafazoli, 2024).

Empirical research shows that teachers' acceptance to AI is significantly affected by circumstance, rather than being consistently favorable or unfavorable. For instance, the favourable attitudes reported in (Bhojak et al., 2025), Türkiye (Özdere, 2023) , and Saudi Arabia (Al-khresheh, 2024) all hinge on structural factors—such as institutional support, specialized training, and test-oriented curricula—that closely replicate the everyday working conditions of the English teachers.

The fast-paced evolution of artificial intelligence in the educational field has raised several psychological concerns for education professionals. One key concern is the fear of job loss, given that AI technologies are increasingly performing tasks that have been traditionally undertaken by teachers. This fear is further compounded by uncertainties regarding the changing role of AI in classrooms and its likely impact on professional legitimacy.

Scholarly research has identified specific challenges such as ethical problems, privacy issues, biased conclusions, and a lack of emotional intelligence in AI systems (Altinay et al., 2025). Teachers at the secondary level in Saudi Arabia are confronted with problems such as attitudes of colleagues, perceived risk, time required, alignment to education objectives, availability of technical support, and economic factors related to the implementation of artificial intelligence tools (Almethen, 2024). AI technology adoption in private schools has

unique challenges and influences teaching approaches and student involvement (Umali, 2024).

One of the key issues raised in the academic literature regards the essential need for extensive professional development programs to prepare teachers with the necessary skills and knowledge for the effective integration of artificial intelligence into their instructional practices. This training needs to cover not just the technical usage of AI tools but also the pedagogical and psychological aspects involved. Teachers need help to overcome difficulties, solve their problems, and use artificial intelligence to augment, not replace, their knowledge. There is evidence of the necessity for continuous professional development of teachers (Al-khresheh, 2024; Almethen, 2024; Özdere, 2023). In spite of the many benefits that come with artificial intelligence, a balance needs to be struck between the efficacy of AI and the necessary human aspects inherent in education. The abstract of the study above reiterates this balance, a view that is repeated consistently in current literature. The emotional intelligence, compassion, and deep understanding that veteran teachers bring to the classroom cannot be replaced by artificial intelligence.

The incorporation of artificial intelligence in teaching English comprises a multifaceted interaction of opportunities and challenges. While AI technologies can enhance educational experiences by personalizing learning pathways to individual needs (Özdere, 2023) and automating administrative tasks (Kessler, 2018), they simultaneously raise psychological concerns for educators, including anxiety about job security (Autor & Salomons, 2018; Wilson & Daugherty, 2018) and threats to professional identity (Brynjolfsson et al., 2017). Research indicates that while AI offers efficiency gains, it may also increase teachers' workloads through the need to monitor and correct AI-generated content, contributing to technostress (Kohnke et al., 2024). Furthermore, the rapid adoption of tools like ChatGPT has created tension between technological innovation and teachers' sense of professional autonomy (Hubbard & Healey), particularly among those with lower digital literacy (Burnett, 2011). Addressing these challenges requires a comprehensive response comprising large-scale professional development, facilitating legal frameworks, and a focus on maintaining the essential human aspects of education. Follow-up studies need to

attempt to investigate the evolving relationship between educators and artificial intelligence and, more critically, methods implemented to break psychological resistance and benefit the most from AI in learning.

Methods and Materials

The proposed study will be a qualitative research design, using a grounded theory approach. The research will critically explore the experiences of English language teachers regarding challenges they face in integrating artificial intelligence into their teaching practice. Since the proposed study focuses on subjective realities and personal perceptions of participants, it therefore aims to elicit rich, detailed insights concerning their psychological challenges.

These include 8 teachers of the English language. Convenience sampling was utilised in finding respondents because the approach is more feasible and consists of willing and easily accessible participants who suit the inclusion criteria set for the research. The sample obtained is from various educational institutions that expose their teaching experiences to the introduction of AI technologies.

Data collection was through in-depth, open-ended interviews, a qualitative research tool appropriate for the approach of grounded theory. This is because participants can express their views, feelings, and experiences without being constrained by structured questions. The guide to interviews aimed at capturing information on teachers' psychological challenges emanating from the integration of AI into the school system and their coping strategies.

Data Analysis

Data analysis was conducted following the grounded theory methodology outlined by Corbin & Strauss, (1990). This approach includes open, axial, and selective coding for systematic categorization and interpretation of data. First, the transcripts were read several times through open coding to identify major themes and concepts. Next, axial coding was used to relate the identified themes and develop broader categories, culminating in a core category representing the central phenomenon under study. This intensive analytic process yielded findings that holistically describe participants' experiences of psychological challenges.

Data analysis was performed by the second and third authors.

Ethical Aspects

Ethical considerations were paramount in this study. Participation and the nature of the research were explained prior to the collection of data, and the right to withdraw at any moment without consequence was put before them. The participants gave informed consent prior to the study. Participants' identities were anonymized, and identifying information was removed from the transcripts to ensure confidentiality. Data were kept securely, with access limited only to the research team. Moreover, the ethical principles that are prescribed for experiments relating to human beings were considered in this research exercise, and as such, it ensured that the lives and dignity of the subjects under study were observed accordingly.

Findings and Results

The present research study aimed to explore the psychological challenges faced by English language teachers in light of the increasing proliferation of Artificial Intelligence (AI) in education, and the impact of these challenges on their teaching practices and well-being. Given the bottom-up approach that we resolved to take, data analysis, as indicated earlier, followed the sequential processes of open, axial, and selective coding. this process yielded the core category "Negotiating professional identity in AI-infused classrooms," which subsumes two pervasive psychological responses -initial anxiety and enduring fear- that recurred in every participant's account.

In this study, two major psychological challenges, namely anxiety and fear were revealed in response to AI integration. The challenges appear to have stemmed mainly from fear of job security as AI is believed to have the capability to replace them unless its potential is harnessed in their own interests. In other words, teachers are of the conviction that instead of being fixated on the issue of whether it will render them jobless, they can approach it strategically and integrate it into their teaching so as to stay updated. Two other factors that cause anxiety and fear relate to compromise of professional credibility and identity, and falling into a state of obsolescence if they avoid AI use. Put differently, the evolving dynamics between teachers and students in

AI-aware classrooms challenge traditional authority structures, necessitating teachers to forge new ways of establishing credibility and professional identity. While teachers appreciate AI's potential to elevate educational quality, they also emphasize the importance of maintaining a human element in learning environments, ensuring that educational outcomes remain holistic and student-centered.he Taken together however, it should be noted that, these challenges were initially intense; that is, as teachers gained more hands-on experience with AI and its potential affordances in relation to their profession, the initial intense feelings of anxiety and fear transitioned to a sense of relief but did not disappear permanently. In this regard, teacher 1 describes her experience as follows:

But on the other hand, I'm kind of worried about it, especially yesterday I saw a news about a school in London that the teachers were replaced by AI. So as a teacher, if I say, you know, that no, I don't worry about it, that, you know, no, AI cannot replace teachers, I would be lying to you.

So I feel like that as, you know, as much as it is a great help for me, one day, yeah, I have this worry, I have this fear that maybe as a teacher, I would be replaced by AI. In a similar vein, teacher 3 and 4 express their views respectively as follows:

My perspective towards JGPT, AR or whatever. Is something positive. Though a little bit of feeling dangerous and wondering what it would be like in the future. Or how would the people continue using it.

You know, I don't see AI as a threat or as a factor that can make everything worse. Maybe at first I didn't feel positively about it. But when you get to know it, when you get to use it, you see that it is helpful.

As the excerpts from teachers show, they come to see the potential that AI holds; nonetheless, the feeling of anxiety and fear persist, albeit diminished in intensity. Despite this, AI appears to be regarded as the proverbial "blessing in disguise" expression. This is particularly evident in the following excerpt from teacher 5 where he puts it in the following:
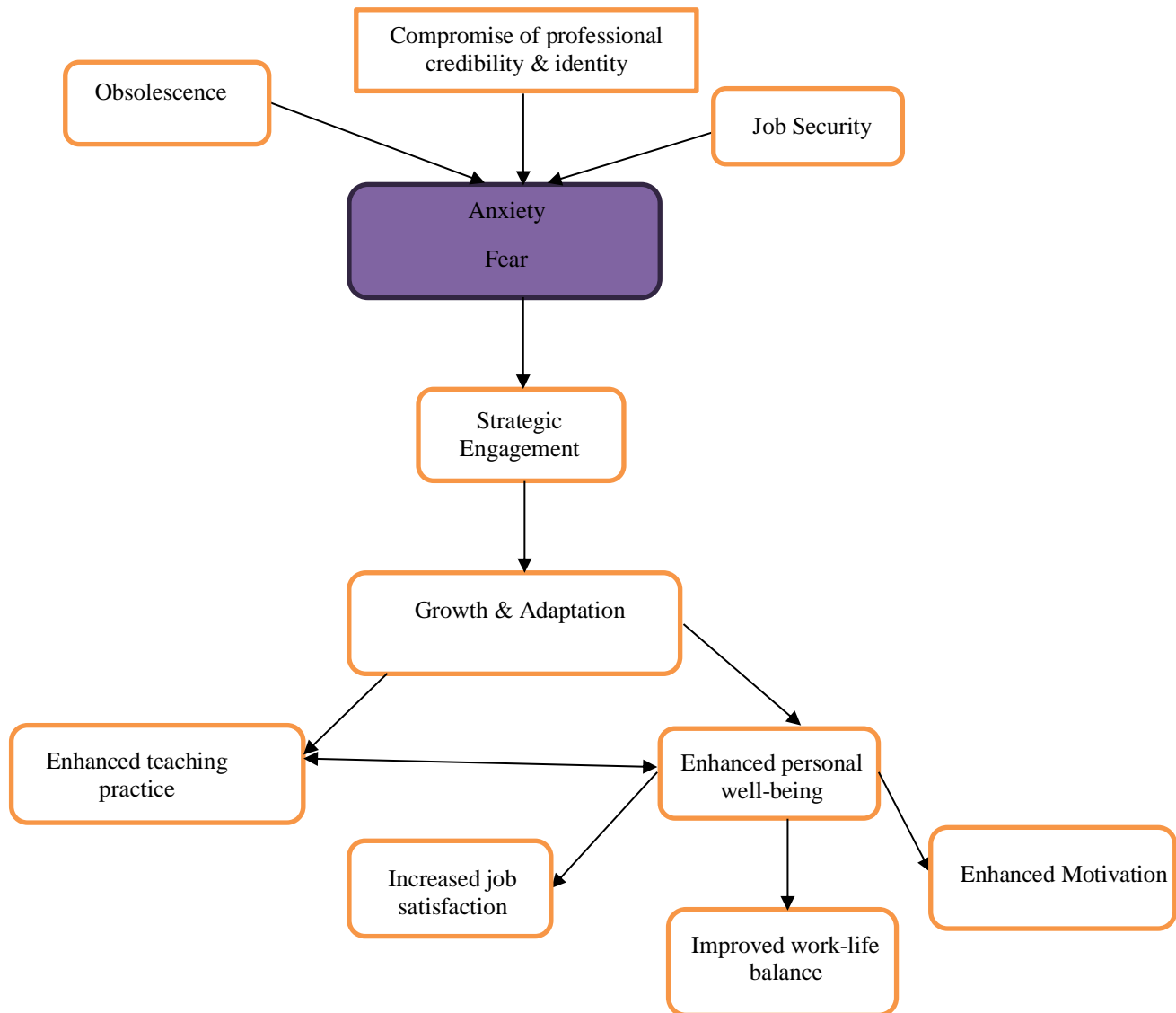
At first, I was surely anxious, because I remember exactly that I kept telling myself 20 years ago, it was knowing English was enough to make you rich. You know, back then, if you had known English well, you would have been rich. But nowadays, people are talking about ways they can avoid going for teachers.

And at first, I was totally depressed. But later on, when I found that, okay, this might be a golden opportunity for me, you know, because it's the early days that people are using AI. Then I remember I looked it up on Google Scholar, and I found some articles about AI.

Adaptability through a strategic transition from the initial feelings of anxiety and fear to acceptance of AI as an educational tool seems to be the next evolutionary development. This adaptation requires self-education and experimentation, allowing teachers to explore AI's potential in enhancing their teaching practices. By engaging with AI, they gradually realize its supportive capabilities, leading to more efficient and enhanced teaching practice, and enhanced personal well-being. This has come about through enhanced efficiency and reduced workload, thereby enabling them to focus on core teaching activities. As far as their personal well-being is concerned, the integration of AI into teaching methods has contributed to increased job satisfaction by alleviating repetitive and time-consuming tasks, thereby allowing educators to allocate more time to personal and professional growth. This shift led to a positive motivational impact, as teachers felt better equipped to manage workloads and deliver high-quality education.

Overall, the study reveals that while AI presents psychological challenges for English language teachers, it also offers substantial opportunities for enhancing teaching practices and personal well-being when strategically utilized. Teachers who embrace AI as a partner in education find it eases workload burdens, increases job satisfaction, and facilitates pedagogical innovation. However, maintaining a balance between technology and the essential human elements in education remains critical to optimizing learning outcomes and sustaining teacher authority. Through prudent usage and strategic integration of AI, educators can confidently navigate the evolving educational landscape while maintaining the core values of teaching.

The essence of teacher participants' experience reveals that while fear and anxiety about the prospect of AI enacting their role in the future might be disturbing, they believe that AI is here to stay and accordingly, its integration into their daily teaching practices can and has in fact promoted their well-being and teaching practice. Further, the element of human in educational practices seems to be indispensable and can reach its full potential via a prudent application of AI affordances.

Figure 1

Psychological challenges, along with their causes and consequences experienced by English language teachers

Discussion and Conclusion

The present study aimed to understand the psychological impacts associated with the integration of AI among English language teachers. Anxiety and fear concerning job security, professional credibility, and obsolescence were identified as two major psychological challenges. Feelings of this kind have evolved with increasing pervasion of AI technologies in educational contexts, hence they are nothing new.

Following Job Insecurity Theory for example, Greenhalgh & Rosenblatt (1984); Sverke et al. (2002), that perceived threats to job continuity elicit significant stress, anxiety, and negative attitudes, our research has identified profound anxiety and fear of job security, professional reputation, and obsolescence as key psychological concerns among English language teachers facing AI integration. Its basic assumptions – perceived powerlessness and expectation of negative work outcomes – accurately account for the 'fear of replacement' and 'nullification of skills' in our participants.

The respondents felt intimidated and feared that AI would replace them because, in such an instance, their skills would become null, which would hamper their professional credibility. However, this study also

recognized that as the experience of the teachers with AI tools increases with time, such negative feelings can be converted into positive attitudes. For example, the teachers who capitalized on the strategic opportunity provided by AI rather than taking it as a threat mentioned that improvements were noted in teaching practices, job satisfaction, and overall well-being (Guo, 2020). This adaptability underscores a key finding: while AI presents challenges, it can enhance pedagogical efficiency and personal fulfillment when thoughtfully integrated.

These findings are in tune with the previous research into psychological and professional consequences of AI for education. For example, Guo (2020) pointed out that AI may reduce the emotional labor of teachers in their routine activities and thus enable educators to focus on the meaningful aspects of teaching. This is supported by our results, where teachers reported increased well-being and reduced workload due to AI integration. Similarly, studies by Hwang et al. (2020) and Sharadgah & Sa'di (2022) highlighted the opportunities provided by AI and the associated challenges, including ethical issues and the risk of over-reliance on technology. Participants in this study also expressed concerns about obsolescence and maintaining the human touch in education, echoing the findings of Jia & Zhang (2021).

However, whileconfirming past issues (e.g., workload,ethics), this research critically uncovers an under-explored feature:profound identity threat (Sari, 2023) due to fearsof indispensable skill obsolescence, not general jobinsecurity. This goes beyond previous focus onpractical/ethical issues (Hwang et al., 2020; Sharadgah & Sa'di, 2022) or abstract human value (Jia & Zhang, 2021), revealing AI's existential impact on professional self-concept forteachers. Based on Job Insecurity Theory (Greenhalgh & Rosenblatt, 1984),we understand anxiety as not simply displacement, butdevaluation of centrally pedagogical human capacities.

However, our results somewhat contrast with the more optimistic outlook presented by (Liu et al., 2022), who focused on the positive effects of AI on teaching and learning processes. While acknowledging the benefits that AI can bring, our study also highlights the emotional and psychological difficulties that rapid technological development may cause for teachers. This suggests that although AI offers technical and pedagogical advantages, its psychological impact needs to be managed carefully.

Similarly, works such as Zou et al. (2020) and Moybeka et al. (2023) indicated the strengths of AI in motivating students and enhancing communication skills. Although our study recognizes these advantages, it focuses primarily on the psychological challenges related to job insecurity and professional identity, a direction not extensively explored in previous research.

Overall, our study aligns with much of the existing research on the opportunities and challenges AI presents for English language education but differs by focusing more on the psychological effects on teachers. This emphasis emphasizes the importance of providing psychological and educational support to help teachers in integrating AI into their job.

These findings have important implications for education policy and practice. The finding of the emotional cost of AI integration for teachers indicates comprehensive professional development programs, which would include both technical skills and psychological adjustment for working with AI. The coping strategies will help the teachers handle anxiety and fear related to AI, help them to view it as a technology supporting teaching and not threatening teachers' jobs. Again, striking a balance between the use of AI tools and human interaction can maintain the holistic and student-centered nature of education.

As participants made clear, while AI can perform administrative tasks and provide personalized learning experiences, it cannot replace a teacher in relationship building with students, encouraging critical thinking, and giving emotional support. Policymakers and school administrators who develop educational policy should ensure that the use of AI tools supports but does not replace the human elements of teaching.

Despite the useful insights gained from this research, several limitations must be recognized. First, the sample size was relatively small, consisting of only eight English language teachers. Second, the study relied on self-reported data, which may be subject to bias, as participants might minimize or exaggerate certain experiences. Third, the focus on part-time teachers may not capture the full psychological burdens that full-time educators or those in different educational contexts may experience. These limitations suggest that further research should explore experiences of different teacher backgrounds and institutional settings to better

understand the psychological effects of AI across education.

The results and limitations of this study suggest a number of avenues for future research. First, a longitudinal design would explore the longitudinal development of teachers' psychological responses to the integration of AI technologies. Such studies could also examine the long-term influence on job satisfaction, teaching efficacy, and professional identity.

Future research should also investigate which professional development programs effectively support teachers in managing the psychological demands of AI integration. It is relevant that educators and policymakers have an idea of the training methods that would better reduce anxiety and fear while building a strategic engagement with AI.

Ultimately, additional research is required to examine the ethical concerns related to AI in education, including student privacy, data security, and the potential for AI to deepen current disparities. As AI rapidly changes educational environments, it is essential to actively address questions of equity, inclusivity, and the well-being of students as well as teachers.

This study illuminates central psychological concerns English language teachers have with AI integration in education, most importantly initial concern regarding job security and professional identity. Importantly, it also reveals that active engagement in the use of AI tools by instructors yields substantial pedagogical efficacy, job satisfaction, and well-being. In order to safeguard core education values, the benefits of AI must be balanced against irreplaceable human factors—establishing relationships, facilitation of critical thinking, and emotional support. These difficulties can be overcome through systematic professional development (e.g., identity-reframing workshops) and ethics-driven implementation to improve teachers' support throughout this transition.

Acknowledgments

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

Authors' Contributions

All authors equally contribute to this study.

References

Ahn, J., Verma, R., Lou, R., Liu, D., Zhang, R., & Yin, W. (2024). Large language models for mathematical reasoning: Progresses and challenges. *arXiv preprint arXiv:2402.00157*. https://doi.org/10.18653/v1/2024.eacl-srw.17

Al-khresheh, M. H. (2024). Bridging technology and pedagogy from a global lens: Teachers' perspectives on integrating ChatGPT in English language teaching. *Computers and Education: Artificial Intelligence*, 6, 100218. https://doi.org/10.1016/j.caeai.2024.100218

Almethen, A. A. (2024). Teachers' Technical Competencies in Using Tools of Madrasti Platform Within the Saudi Environment.

Altinay, Z., Dagli, O., Dagli, G., Altinay, M., & Altinay, F. (2025). Evaluation of the Use of Educational Technologies in Shaping the Future According to the Opinions of School Principles. *Leadership and Policy in Schools*, 24(1), 210-220. https://doi.org/10.1080/15700763.2024.2426635

Autor, D., & Salomons, A. (2018). *Is automation labor-displacing? Productivity growth, employment, and the labor share*. https://doi.org/10.3386/w24871

Bhojak, N. P., Momin, M., Jani, D., & Mathur, A. (2025). Enhancing teachers' job satisfaction through the artificial intelligence utilization. *Journal of Applied Research in Higher Education*. https://doi.org/10.1108/JARHE-03-2024-0126

Brynjolfsson, E., Rock, D., & Syverson, C. (2017). *Artificial intelligence and the modern productivity paradox: A clash of expectations and statistics*. https://doi.org/10.3386/w24001

Burnett, C. (2011). Pre-service teachers' digital literacy practices: exploring contingency in identity and digital literacy in and out of educational contexts. *Language and Education*, 25(5),

433-449. https://doi.org/10.1080/09500782.2011.584347

Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative sociology*, *13*(1), 3-21. https://doi.org/10.1007/BF00988593

Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management review*, *9*(3), 438-448. https://doi.org/10.2307/258284

Guo, Q. (2020). Minimizing emotional labor through artificial intelligence for effective labor management of English teachers. *Journal of Combinatorial Mathematics and Combinatorial Computing*, *117*, 37-46. https://doi.org/10.61091/jcmcc117-04

Hubbard, P., & Healey, D. Developing Targeted Technology Standards for Teachers: Report on a Project for the Canadian Settlement Language Sector. https://papers.iafor.org/wp-content/uploads/papers/worldcall2023/WorldCALL2023_75515.pdf

Hwang, G.-J., Xie, H., Wah, B. W., & Gašević, D. (2020). Vision, challenges, roles and research issues of Artificial Intelligence in Education. In (Vol. 1, pp. 100001): Elsevier. https://doi.org/10.1016/j.caeai.2020.100001

Jia, S., & Zhang, X. (2021). Teaching mode of psychology and pedagogy in colleges and universities based on artificial intelligence technology. Journal of Physics: Conference Series. https://doi.org/10.1088/1742-6596/1852/3/032033

Kessler, G. (2018). Technology and the future of language teaching. *Foreign language annals*, *51*(1), 205-218. https://doi.org/10.1111/flan.12318

Kohnke, L., Zou, D., & Moorhouse, B. L. (2024). Technostress and English language teaching in the age of generative AI. *Educational technology & society*, *27*(2), 306-320. https://www.jstor.org/stable/48766177

Kushmar, L. V., Vornachev, A. O., & Kaida, N. (2022). Artificial intelligence in language learning: What are we afraid of. https://reposit.uni-sport.edu.ua/items/74b24a77-7b31-4c94-a6c8-690bfb0a9531

Lameras, P., & Arnab, S. (2021). Power to the teachers: an exploratory review on artificial intelligence in education. *Information*, *13*(1), 14. https://doi.org/10.3390/info13010014

Liu, Y., Chen, L., & Yao, Z. (2022). The application of artificial intelligence assistant to deep learning in teachers' teaching and students' learning processes. *Frontiers in psychology*, *13*, 929175. https://doi.org/10.3389/fpsyg.2022.929175

Moybeka, A., Syariatin, N., Tatipang, D. P., Mushthoza, D. A., Dewi, N., & Tineh, S. (2023). Artificial Intelligence and English classroom: the implications of AI toward EFL students' motivation. *Edumaspul: Jurnal Pendidikan*, *7*(2), 2444-2454. https://doi.org/10.33487/edumaspul.v7i2.6669

Özdere, M. (2023). The integration of artificial intelligence in English education: Opportunities and challenges. *Language Education and Technology*, *3*(2). https://www.langedutech.com/letjournal/index.php/let/article/view/55

Rafael, J. M. (2026). Pedagogical practices and experiences of English language teachers using Artificial Intelligence (AI): A meta-synthesis. *Ho Chi Minh City Open University Journal Of Science-Social Sciences*. https://doi.org/10.46223/HCMCOUJS.soci.en.16.10.4466.2006

Samarasinghe, K., & Prasangani, K. (2023). Reliance on AI tools and fostering creativity among Sri Lankan ESL learners:

Special focus to ChatGPT. https://d1wqtxts1xzle7.cloudfront.net/105952112/icetol2023_full_paper_proceedings-libre.pdf?1695953941=&response-content-disposition=inline%3B+filename%3DIcetol2023_full_paper_proceedings.pdf&Expires=1769269632&Signature=TQReAfPsjSM1NwwOJx4lEWgIRIsl5lWfyUB0FJiqNYGEr8opWv8C1PsK3G-WKQquOwLVhYazYDAtFt7Jr3L43n1qxxFruA3E9xOrGSuND1g8OuY0I6wbbJQ19BiJ~9tx1aOepQS9KI-B0KTUDEBNnwVJcyPRvYu-ccW83sHbjly4tWaHd6LbMMMW6dz9Fm1UvnX5P1D8xe8DUI5b4ThGvT~jwUOaF-Ng1fXYzTbv4SbUNx~lQTVZodb5wGu67Q6Vjj660xOaY99g6dbj2vrdMLRO5IIHp0~CgOQQig5z5oPnQU3jMRUFP-5nTfyN4IDXGk81EThYZnaTZhHfPq3Ecg__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=104

Sari, N. (2023). The role of artificial intelligence (AI) in developing English language learner's communication skills. *Journal on Education*, *6*(01), 750-757. https://doi.org/10.31004/joe.v6i1.2990

Sharadgah, T. A., & Sa'di, R. A. (2022). A systematic review of research on the use of artificial intelligence in English language teaching and learning (2015-2021): What are the current effects? *Journal of Information Technology Education: Research*, *21*. https://doi.org/10.28945/4999

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *Journal of occupational health psychology*, *7*(3), 242. https://doi.org/10.1037/1076-8998.7.3.242

Tafazoli, D. (2024). Extended reality in computer-assisted language learning. *Innovations in Technologies for Language Teaching and Learning*, 17-34. https://doi.org/10.1007/978-3-031-63447-5_2

Umali, A. (2024). Remote Learning in Higher Education: Exploring Human Factors Challanges and Learning Management System Usability. https://commons.erau.edu/edt/871/

Wang, L. (2024). RETRACTED ARTICLE: Students' psychology for teaching design with artificial intelligence approaches for enhancing teaching. *Soft Computing*, *28*(Suppl 2), 593-593. https://doi.org/10.1007/s00500-023-08480-7

Wilson, H. J., & Daugherty, P. R. (2018). Collaborative intelligence: Humans and AI are joining forces. *Harvard business review*, *96*(4), 114-123. https://hometownhealthonline.com/wp-content/uploads/2019/02/ai2-R1804J-PDF-ENG.pdf

Yang, A. (2024). Challenges and opportunities for foreign language teachers in the era of artificial intelligence. *International Journal of Education and Humanities*, *4*(1), 39-50. https://doi.org/10.58557/(ijeh).v4i1.202

Zou, B., Liviero, S., Hao, M., & Wei, C. (2020). Artificial intelligence technology for EAP speaking skills: Student perceptions of opportunities and challenges. *Technology and the psychology of second language learners and users*, 433-463. https://doi.org/10.1007/978-3-030-34212-8_17