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THE IMPACT OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES ON THE PSYCHOLOGICAL COMFORT OF ENGLISH LANGUAGE LEARNERS

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Abstract: In recent years, foreign language learning has increasingly been viewed not only as a cognitive process but also as an affective one, where anxiety, confidence, and motivation play a central role. The rapid development of artificial intelligence (AI) technologies has created new opportunities for language practice by enabling learners to interact with digital systems without fear of negative evaluation. This article examines international empirical studies on the impact of AI tools—particularly generative systems (e.g., ChatGPT-like models), chatbots, and automated feedback systems—on the psychological comfort of English language learners. The findings suggest that AI-mediated environments help reduce language anxiety, enhance learner confidence, and create a safe space for linguistic experimentation.

Keywords: artificial intelligence, language learning, psychological comfort, foreign language anxiety, self-efficacy, chatbots, generative AI, English language learners, affective factors, automated feedback

Introduction

Foreign language learning is often associated with considerable psychological tension. The concept of *foreign language anxiety*, introduced by Horwitz, Horwitz, and Cope, refers to a persistent form of anxiety that arises during oral communication and performance evaluation. Previous research has demonstrated that such anxiety significantly affects learners' willingness to speak and actively participate in communication.

With the advancement of digital technologies, research has increasingly focused on tools that can help reduce affective barriers. The emergence of AI-powered chatbots and generative language models has made it possible to create alternative learning environments where students can practice language skills without fear of criticism. In recent literature, AI is often described as a psychologically safe intermediary that supports learner engagement.

The aim of this article is to analyze international empirical studies investigating the impact of AI tools on learners' anxiety, confidence, and overall psychological comfort in English language learning. This study also contributes to the existing body of research by providing qualitative insights into how AI-mediated environments influence learners' emotional experiences—an area that remains relatively underexplored.

Review of International Empirical Studies

Early studies in this field focused on the use of language chatbots. Fryer and Carpenter found that students who interacted with chatbots over the course of a semester participated more actively in dialogues and reported lower levels of anxiety compared to traditional classroom settings. The absence of direct human evaluation and the possibility of repeated attempts played a key role in increasing learners' confidence.

Similarly, Kim conducted a six-week study involving Korean university students practicing spoken English with an AI chatbot. The results showed a significant decrease in speaking anxiety and a noticeable improvement in confidence. Participants highlighted that interacting with an AI system felt less stressful than communicating with teachers or peers.

With the emergence of generative AI, research has expanded to include systems similar to ChatGPT. Kohnke, Moorhouse, and Zou reported that students using generative AI for conversational practice demonstrated greater autonomy and a stronger willingness to experiment with language. Many participants described AI as a "safe interlocutor," allowing them to explore new linguistic forms without fear of making mistakes.

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Zhai examined the use of generative AI for writing practice among university students in the United States and China. The study revealed increased self-efficacy and reduced writing anxiety, which the author attributed to the non-judgmental nature of AI-generated feedback.

Another important line of research focuses on automated feedback systems. Ranalli showed that automated writing evaluation reduces stress by allowing students to receive feedback privately. Wang and Lee similarly reported decreased writing anxiety and increased motivation among learners who regularly used AI-based feedback tools.

Furthermore, psychological comfort is often understood as a combination of reduced anxiety and increased enjoyment. Dewaele and MacIntyre demonstrated that lower anxiety is associated with higher levels of positive emotions and communicative engagement. Zhou and Wei confirmed that regular interaction with chatbots leads to reduced anxiety and increased confidence in speaking.

Overall, international evidence consistently shows that AI tools create psychologically safer learning environments, encouraging learners to take risks and engage more actively in language practice.

Methodology

This study employs a qualitative research design to explore learners' experiences with AI tools. The participants consisted of 20 adult English language learners at B1–B2 proficiency levels. The study was conducted over a four-week period, during which participants engaged in AI-assisted activities at least three times per week. Each session included conversational interaction with a generative AI chatbot as well as short writing tasks followed by automated feedback.

The AI tools used in the study were selected due to their accessibility and relevance to real-world language learning contexts. Data were collected through semi-structured interviews and reflective journals, allowing for an in-depth understanding of learners' emotional experiences.

The data were analyzed using thematic analysis, which was carried out in several stages, including initial coding, categorization of recurring themes, and interpretation of patterns related to psychological comfort, anxiety, and motivation. To enhance reliability, the analysis focused on recurring responses across multiple participants. In addition, data triangulation across interviews and reflective journals was employed to ensure the credibility of the findings.

Results

The findings indicate that participants experienced noticeably lower levels of anxiety when interacting with AI compared to traditional communication settings. Many learners emphasized that the absence of direct evaluation and the ability to correct mistakes privately contributed to a sense of psychological safety.

Participants also reported increased confidence in their language abilities. The opportunity to practice repeatedly and receive immediate feedback enhanced their sense of control over the learning process.

In addition, AI-mediated environments were perceived as spaces for experimentation. Learners were more willing to try new vocabulary and grammatical structures without fear of negative reactions. This resulted in increased practice time and improved fluency.

These findings align with previous international research highlighting reduced anxiety and increased learner autonomy in AI-supported learning environments.

Theme	Description	Evidence from participants
Reduced anxiety	Lower fear of making mistakes	"I feel less nervous talking to AI"
Increased confidence	Greater willingness to speak	"I try more sentences now"
Safe experimentation	Freedom to test language	"I'm not afraid to be wrong"

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Discussion

The results confirm that AI technologies can function as psychological mediators in language learning. The reduction in anxiety can largely be explained by the absence of social judgment and the availability of private, low-risk practice environments.

From the perspective of self-efficacy theory, regular interaction with AI tools strengthens learners' belief in their own abilities, which in turn increases their readiness to participate in real-life communication. However, there is also a potential risk of overreliance on AI-generated support. For this reason, a balanced integration of AI tools with traditional teaching methods is recommended.

Conclusion

The analysis of international empirical studies demonstrates that artificial intelligence technologies can significantly enhance the psychological comfort of English language learners. AI-supported environments reduce anxiety, increase confidence, and provide a safe space for language practice.

The integration of AI tools into foreign language education can therefore be considered an effective strategy for overcoming psychological barriers. At the same time, this study has certain limitations, including a relatively small sample size and a short duration, which may affect the generalizability of the findings.

Future research should focus on the long-term impact of AI on affective factors and on the development of pedagogically grounded models for its effective implementation.

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