

## A Phenomenological Study on the Impact of Personalized AI Feedback on

### Writing Quality: Insights from EFL Students in Uzbekistan

Diyorjon Abdullaev<sup>1\*</sup>, Aziz Abdazimov<sup>2</sup>, Zilola Khusainova<sup>3</sup>, Samariddin Makhmudov<sup>4</sup>,  
Dilfuza Sagdullaeva<sup>5</sup>

<sup>1</sup>Department of Scientific Affairs, Vice-rector for Scientific Affairs, Urganch State Pedagogical Institute, Urganch, Uzbekistan

<sup>2</sup>Department of World History, National Pedagogical University of Uzbekistan, Tashkent, Uzbekistan

<sup>3</sup>Department of Computer Linguistics and Digital Technology, Alisher Navo'i Tashkent State University of Uzbek Language and Literature, Tashkent, Uzbekistan

<sup>4</sup>Department of Finance and Tourism, Termez University of Economics and Service, Termez, Uzbekistan

<sup>4</sup>Department of Economics, Mamun University, Khiva, Uzbekistan

<sup>4</sup>Tashkent State University of Economics, Tashkent, Uzbekistan

<sup>5</sup>Department of "Arabic Language and literature Al-Azhar", International Academy of Islamic Studies of Uzbekistan, Tashkent, Uzbekistan

\*Corresponding author's email: [d.abdullaev1980@gmail.com](mailto:d.abdullaev1980@gmail.com)

\*ORCID: 0000-0001-8560-5604

DOI:

Received: 16/04/2025

Revision: 21/06/2025

Accepted: 19/07/2025

Online: ....../...../2025

---

### ABSTRACT

The incorporation of artificial intelligence (AI) into language education has garnered increasing academic interest, especially concerning how learners interact with and react to feedback on their writing. Although a significant amount of quantitative research has shown enhancements in writing performance, due to AI-mediated feedback, there is much less understanding of the actual experiences of learners who engage with this feedback in real classroom settings. This study aims to fill a gap by employing a phenomenological approach to explore the perceptions and interpretations of personalized AI feedback on writing quality among intermediate-level EFL students in Uzbekistan. Thirty students engaged in an eight-week intervention where they received iterative AI feedback on a variety of academic writing tasks. Data were collected through semi-structured interviews and reflective journals, and analyzed thematically to capture the essence of learners' experiences. The analysis uncovered four interconnected themes: (1) exploring a new ecology of feedback, (2) building trust and understanding with AI, (3) rebuilding writing confidence and agency, and (4) addressing challenges in human–AI mediation. Learners frequently characterized AI feedback as prompt, comprehensive, and encouraging, in stark contrast to the often delayed and generalized feedback usually given by teachers. Simultaneously, they conveyed uncertainty regarding the authority of AI, often verifying its recommendations with teachers to guarantee accuracy and relevance to the context. Personalized AI feedback was notably experienced as empowering, allowing learners to take on greater responsibility for

### Keywords:

Personalized-AI feedback,  
Phenomenology, EFL learners, Writing quality, Uzbekistan

revisions and to view themselves as more capable writers. However, worries also arose about dependence on AI, societal norms surrounding teacher authority, and the sporadic insensitivity to context and rhetorical suitability in suggestions produced by AI. This study enhances our understanding of the phenomenological aspects of personalized AI feedback in EFL writing by emphasizing the perspectives of learners.

---

## **Introduction**

Feedback has been acknowledged as a crucial component in student learning, especially in the context of second language (L2) writing (Hyland & Hyland, 2019). Effective feedback goes beyond just pointing out surface-level mistakes; it plays a crucial role in helping learners create revision strategies, enhancing their confidence, and promoting ongoing involvement with writing tasks. In numerous English as a Foreign Language (EFL) settings, particularly in Uzbekistan, teachers frequently face structural obstacles like large class sizes, heavy workloads, and restricted time for offering personalized feedback (Wright et al., 2019). Consequently, students often encounter feedback that is tardy, vague, or insufficient, which limits their chances for ongoing revision and deeper involvement in the writing process (Min, 2006; Rahimi, 2021). The recent rise of artificial intelligence (AI) feedback tools offers a promising answer to these enduring challenges. By utilizing the capabilities of natural language processing (NLP) and machine learning, these AI systems provide immediate, personalized, and detailed feedback on multiple aspects of writing, including grammar, vocabulary, coherence, and rhetorical structure (Huawei & Aryadoust, 2023; Ramesh & Sanampudi, 2022). In contrast to conventional teacher feedback, which is often limited by time and workload, personalized AI feedback can be delivered instantly and consistently, enabling learners to make real-time revisions to their work. The immediacy and adaptability of personalized AI feedback prove it could serve as a transformative pedagogical tool, particularly in situations where resources are limited and individualized support is lacking (Das et al., 2025; Strielkowski et al., 2025). Aldino et al. (2024) also emphasized the promise of automated feedback in overcoming the shortcomings of conventional feedback methods.

Nonetheless, in light of these encouraging possibilities, the incorporation of AI into writing instruction prompts important inquiries about the genuine experiences of learners with this type of feedback. It is crucial to recognize that feedback is not merely a neutral exchange of information; instead, it is a process that is influenced by social and emotional factors, which in turn shapes learners' identities, confidence, and sense of agency (Hyland, 2019). Panadero et al. (2016) highlight the significance of comprehending how learners manage their self-assessment in relation to feedback. Although quantitative studies have shown that AI feedback can enhance writing outcomes (Bai & Nordin, 2025), there remains a limited understanding of how learners perceive, interpret, and respond to this feedback in their everyday writing activities. A more profound comprehension of these lived experiences is crucial, as learners' interaction with feedback is shaped not only by its technical precision but also by their trust in the source, their culturally-influenced expectations of authority, and their emotional reactions to corrective input (Winstone & Carless, 2019; Yu & Lee, 2016). Consequently, based on this perspective, this study addresses the following research question:

Research question: In what ways do Uzbekistani EFL learners engage with personalized AI feedback regarding their writing?

This study seeks to enhance the understanding of personalized AI feedback in EFL writing by placing a strong emphasis on the perspectives of learners. It aims to highlight the advantages of AI feedback (like its immediacy, personalization, and potential for motivational support) while also addressing the complexities that emerge as learners deal with trust, authority, and cultural expectations. This research builds upon the current literature regarding feedback in L2 writing (Bitchener & Ferris, 2012) and adds to the ongoing discussion about the role of AI in education (Hwang, 2014). Holmes et al. (2019) offer an in-depth examination of the potential benefits and consequences of AI in the field of education. The findings provide practitioners with important insights on integrating personalized AI feedback into writing instruction in a way that enhances, rather than substitutes, teacher feedback. The study highlights the necessity for policymakers to take into account the viewpoints of learners when integrating AI technologies into educational environments. Ultimately, for researchers, it showcases the value of phenomenological inquiry in understanding the lived experiences of learners during a time marked by swift technological progress.

## **Literature review**

### ***Feedback as a Cornerstone of L2 Writing Development***

Feedback has consistently been acknowledged as a crucial component in the teaching of L2 writing. Prominent models of the writing process, like those introduced by Flower and Hayes (1981), view writing as a recursive and strategic endeavor, necessitating that learners consistently establish goals, track their advancement, and refine their work. In this iterative process, feedback acts as an essential catalyst for reflection and improvement, helping learners to recognize the gaps between their intended meaning and its expression in text (Hyland & Hyland, 2019). Effective feedback goes beyond merely pointing out mistakes; it encourages learners to critically assess their writing and gain a more profound grasp of rhetorical principles (Hyland & Hyland, 2019). Hyland and Hyland (2006) further argue that the true value of feedback lies not merely in correction, but in fostering metalinguistic awareness.

Feedback is especially crucial for EFL learners, serving as external support to address limited linguistic resources and enhance rhetorical awareness (Biber et al., 2011; Tai et al., 2015). Nonetheless, the effectiveness of feedback depends not just on its precision but also on its promptness, clarity, and, importantly, the learner's readiness to interact with it (Yu & Lee, 2016). Recent research by Lee (2008) emphasizes the significance of learner agency in enhancing the effectiveness of feedback, indicating that learners need to engage actively in the feedback process for it to be genuinely advantageous. In various educational settings, including Uzbekistan, educators frequently encounter systemic obstacles like large class sizes and heavy workloads, which can hinder their capacity to deliver personalized and prompt feedback (Wright et al., 2019). As a result, students often encounter feedback that is either delayed or too general, which restricts their chances for significant revision and may lessen the effectiveness of the feedback given. The inherent tension between the need for feedback in education and the practical limitations of providing it has generated interest in technological solutions. The potential for immediacy and personalization in AI feedback marks a notable advancement in

tackling this challenge. Furthermore, the growing sophistication of AI tools enables feedback that is customized to the unique needs and proficiency levels of individual learners (Dekhakhena, 2025), presenting a possible remedy to the shortcomings of conventional feedback methods and potentially improving learner autonomy.

### *AI as a Feedback Provider in Writing*

The incorporation of AI into writing instruction has significantly transformed the way feedback is provided. AI systems, utilizing natural language processing (NLP) and machine learning, are capable of analyzing learners' texts and providing immediate, targeted feedback on elements like grammar, vocabulary, coherence, and rhetorical structure (Huawei & Aryadoust, 2023; Ramesh & Sanampudi, 2022). In contrast to conventional teacher feedback, which is limited by time and resources, personalized AI feedback is accessible whenever needed, allowing learners to revise repeatedly and autonomously (Hwang, 2014). This accessibility can greatly benefit learners who might be reluctant to ask teachers for clarification or who favor working at their own pace, potentially encouraging greater learner autonomy (Rezai et al., 2024). The possibility of enhanced autonomy corresponds with modern teaching methods that focus on learner-centered education.

Recent research indicates that AI feedback has significant potential to improve writing quality. Holmes et al. (2019) note that AI tools such as ChatGPT can serve as virtual tutors, offering corrective feedback that aids learners' growth within their zone of proximal development (Vygotsky, 1978). Laurillard (2008) highlight that technology-driven feedback can assist learners in concentrating on particular areas for enhancement, whereas Tam (2025) propose that ChatGPT provides a balance between the quality of feedback and its immediacy. Certainly, the rapidity and reliability of AI feedback can prove to be especially beneficial in extensive writing courses where personalized guidance from instructors is constrained (Escalante et al., 2023). This holds particular significance in situations characterized by elevated student-to-teacher ratios.

Research studies provide additional evidence for these assertions. Bai and Nordin (2025) showed that students using AI-based applications experienced notable enhancements in their writing results and feedback literacy. In a similar vein, Yesilyurt (2023) noted that regular exposure to AI feedback resulted in lasting improvements, as learners became increasingly aware of their strengths and weaknesses. Meanwhile, Zou et al. (2024) discovered that learners typically viewed AI feedback as beneficial, albeit with some concerns about its subtlety. Yan and Zhang (2024) emphasize the iterative aspect of AI feedback, indicating that regular interaction promotes deeper learning and more lasting enhancements. It is important to recognize that AI feedback has its limitations. Although AI can offer comprehensive corrections, it may not possess the subtle contextual sensitivity and rhetorical insight that define human feedback (Winstone & Carless, 2019). Solak (2024) discovered that learners occasionally view AI feedback as less credible or personalized than that from a human instructor, indicating an ongoing necessity for human oversight and integration. Learners might find it challenging to understand AI suggestions or to question their accuracy, especially in educational environments where teachers are typically seen as the main authority on language usage. These considerations highlight the significance of exploring how learners experience

and navigate personalized AI feedback, as well as how these experiences are influenced by cultural and pedagogical contexts.

### *The Phenomenological Dimensions of Feedback Experiences*

Although quantitative studies have demonstrated the effectiveness of personalized AI feedback in enhancing writing outcomes, they frequently neglect the subjective and nuanced aspects of learners' experiences. Feedback transcends mere technical correction; it is a process influenced by social and emotional factors that can significantly impact learners' identities, confidence, and sense of agency (Hyland, 2019). The engagement of learners with feedback is shaped by various factors, including their trust in the source, cultural expectations concerning authority, and emotional reactions to correction (Guo & Wang, 2025; Yu & Lee, 2016). Hattie and Timperley (2007) contend that feedback achieves its greatest impact when it emphasizes the task, the process, and self-regulation, rather than merely concentrating on the learner – a principle that remains pertinent irrespective of the feedback source. Phenomenology, thus, provides a notably effective perspective for understanding these intricate aspects.

Phenomenology aims to reveal the meanings individuals attach to their experiences with feedback by concentrating on learners' lived experiences (van Manen, 2016). This approach enables researchers to go beyond merely questioning if personalized AI feedback “works” and to investigate how it is experienced, negotiated, and incorporated into learners' writing practices. Understanding these subjective experiences is essential for creating teaching methods that enhance the advantages of personalized AI feedback while reducing possible downsides. Oxford (2015) highlights the importance of addressing learner emotions and motivations for successful language learning, a viewpoint that becomes especially significant with the advent of new technologies such as AI. The emotional aspect of feedback, thus, requires thoughtful attention.

For example, Apriani et al. (2024) discovered that instruction aided by ChatBot enhanced EFL students' writing proficiency, self-efficacy, and self-regulation, while also highlighting concerns regarding possible over-reliance and academic integrity. In a similar vein, Xu et al. (2024) showed that the use of ChatGPT improved both foreign language self-efficacy and enjoyment, with enjoyment acting as a mediator in the relationship between AI use and self-efficacy. These studies indicate that learners' experiences with AI feedback are complex, involving both empowerment and possible challenges. Additionally, recent research by Jin et al. (2025) emphasizes the need to take into account learners' previous experiences with technology when analyzing their reactions to personalized AI feedback, indicating that digital literacy significantly influences their perceptions. A phenomenological approach is essential for capturing these nuances and providing a more comprehensive understanding of the impact of personalized AI feedback. It moves beyond quantifiable results to explore the qualitative dimensions of learner experience, ultimately informing more effective pedagogical practices.

### *The Context of Uzbekistan and Research Gaps*

The context of Uzbekistan brings an important dimension to this investigation. In Uzbekistan, the significance of English has grown in both educational and professional contexts, as government initiatives advocate for English proficiency as a crucial element of modernization and global integration (Ozodbekova, 2025). Nonetheless, for numerous learners, composing in English continues to pose a considerable difficulty. Effective academic writing requires



linguistic precision alongside the capacity to structure ideas coherently, formulate persuasive arguments, and utilize suitable rhetorical conventions (Swales & Feak, 2004). For EFL learners, these challenges are frequently intensified by restricted exposure to genuine English texts and the natural difficulty of articulating complex ideas in an L2 (Lee, 2016). Additionally, the distinct rhetorical traditions and cultural norms inherent in academic writing can vary greatly between English and Uzbek, presenting further challenges for learners (Akhmedjanova, 2022). This distinction underscores the importance of employing culturally sensitive teaching methods.

In Uzbekistan, teachers often face challenges in delivering the specific, personalized feedback that students need to enhance their writing abilities. In this context, AI feedback serves as a valuable addition to teacher input, offering learners immediate, personalized guidance that can aid in iterative revision and promote greater autonomy. Nonetheless, the cultural dynamics surrounding feedback in Uzbekistan introduce additional layers of complexity to this scenario. Learners frequently see teachers as the primary authority and may be doubtful of feedback coming from non-human sources (Sotlikova, 2024). Investigating how learners manage these tensions is essential for grasping the pedagogical potential of personalized AI feedback in this particular cultural context. Jandt (1998) contends that cultural awareness is essential when introducing new pedagogical methods in varied educational environments, and neglecting cultural norms can impede the success of even the most innovative technologies.

Although there is an increasing amount of research on AI feedback, there are still several gaps that persist. Initially, a significant portion of the current literature has concentrated on quantifiable results, like writing scores or self-efficacy ratings, frequently overlooking the personal aspects of learners' experiences. Secondly, most studies have primarily focused on East Asian contexts, while under-researched regions like Central Asia have received insufficient attention. The cultural dynamics of feedback in Uzbekistan can significantly influence learners' experiences with personalized AI feedback in distinctive and meaningful ways. Third, although research has explored the overall advantages of personalized AI feedback, there is limited understanding of how tailored, context-specific feedback affects learners' views on writing quality, their confidence, and their sense of agency. Recent research by Mirzaei and Khayer (2025) indicates that the perceived usefulness of AI feedback is closely linked to learners' trust in the technology, underscoring the need to tackle skepticism and foster learner confidence. This study seeks to fill these gaps by employing a phenomenological approach to investigate the experiences of Uzbekistani EFL learners with personalized AI feedback on their writing. By prioritizing learners' voices, it aims to shed light on the emotional, cognitive, and social aspects of personalized AI feedback, which can enhance a deeper and more thorough understanding of its educational potential and constraints.

## **Methods**

### *Research Design*

This study utilized a qualitative phenomenological approach to investigate the lived experiences of EFL students in Uzbekistan who interacted with personalized AI feedback on their writing. Phenomenology was selected for its emphasis on grasping the essence of participants' experiences, concentrating on how individuals perceive and interpret a phenomenon in their daily lives (van Manen, 2016). In contrast to methods that focus on measurement and

generalization, phenomenology prioritizes depth, seeking to understand the meanings that participants attach to their experiences. Creswell and Poth (2016) highlight that this approach is especially effective for comprehending intricate, subjective experiences. The choice to adopt a phenomenological approach was influenced by the research questions, which aimed to explore not only the effects of personalized AI feedback on writing quality but also how learners perceived their experiences in terms of confidence, agency, and their views on writing. Hyland (2019) emphasizes that feedback is not merely a neutral exchange of information; rather, it is a process that is shaped by social and emotional factors. A phenomenological perspective, then, enables the emphasis on learners' voices while examining the emotional, cognitive, and social aspects of their interaction with personalized AI feedback. This corresponds with the wider movement in applied linguistics that views learning as a situated, embodied, and socially constructed process (Norton, 2013). In line with Moustakas (1994), the study highlighted the subjective accounts of participants, seeking to set aside the researcher's preconceptions and concentrate on the meanings that arose from the data. The analysis aimed to uncover the core of the phenomenon by extracting shared elements from various experiences, all the while recognizing individual differences. The process of "bracketing" plays a vital role in reducing researcher bias and ensuring that the voices of the participants remain central (Pandini & Yanto, 2023).

### *Participants*

The research took place at a private language institute in Tashkent, Uzbekistan, which provides English courses for secondary and university students gearing up for academic and professional endeavors. In Uzbekistan's educational landscape, English proficiency is gaining significant importance, supported by government initiatives that position it as a crucial factor for modernization and global integration (Ozodbekova, 2025). Nonetheless, writing in English continues to pose a considerable challenge for numerous learners, who frequently struggle with grammar, vocabulary, coherence, and rhetorical conventions (Lee, 2016). This context offers a distinctive chance to investigate how personalized AI feedback can meet particular educational requirements. In the study, thirty intermediate-level EFL learners, aged between 17 and 21, took part. Participants were enrolled in academic writing courses and had previous experience with teacher feedback, though their exposure to AI tools was limited. The sample comprised both male and female students, accurately representing the institute's gender distribution. Participants were chosen using purposive sampling, which is suitable for phenomenological research as it guarantees the inclusion of individuals who have direct experience with the phenomenon being studied (Creswell & Poth, 2016). This sampling strategy facilitated the selection of participants capable of offering in-depth and nuanced narratives of their experiences. All participants willingly volunteered after being informed about the study's purpose. Participants were guaranteed that their involvement was voluntary, that they could withdraw at any moment, and that their responses would remain confidential. All transcripts and reports utilized pseudonyms to safeguard the identities of participants.

### *Data Collection*

Data were gathered over an eight-week timeframe in which participants engaged in a sequence of writing assignments and received ongoing personalized AI feedback. The AI system utilized was ChatGPT, offering tailored feedback on grammar, vocabulary, coherence, organization, and

content relevance. Students were urged to refine their drafts in light of the feedback received and to contemplate their experiences. This iterative process enabled participants to interact with the AI feedback progressively, fostering a deeper comprehension of its strengths and limitations. Two main methods for data collection were utilized: semi-structured interviews and reflective journals. Every participant took part in a one-on-one interview that lasted between 45 and 60 minutes. Interviews were carried out in either English or Uzbek, depending on the preference of the participants, and were audio-recorded with their consent. The interview guide featured open-ended questions aimed at uncovering participants' experiences with personalized AI feedback, their views on its usefulness, and its effects on their writing confidence and agency. Example prompts included: "Can you describe your initial reaction to receiving feedback from the AI system?", "In what ways did the AI feedback assist you in improving your writing?", "Were there instances where you questioned or doubted the AI's suggestions?", and "How did your experience with AI feedback compare to receiving feedback from your teacher?". The semi-structured format provided flexibility, allowing the interviewer to seek clarification and pursue emerging themes effectively. Participants maintained weekly reflective journals, documenting their thoughts and emotions regarding the personalized AI feedback. The journals served as an additional data source, documenting learners' immediate responses and reflections throughout the duration. Journals were composed in either English or Uzbek and submitted electronically on a weekly basis. The interviews and journals collectively offered a wealth of triangulated data that captured both retrospective and contemporary accounts of learners' experiences.

### *Data Analysis*

The data analysis was conducted using Braun and Clarke's (2006) six-step framework for thematic analysis, tailored to align with a phenomenological approach. The process involved a cyclical approach, engaging with the data multiple times to uncover meaningful patterns. This method facilitated a thorough and careful examination of the data, while also being attentive to the subtleties of the participants' experiences. Initially, all interviews were transcribed word for word, and the reflective journals were gathered into one comprehensive collection. The researchers engaged deeply with the data by reading and re-reading it multiple times. Next, portions of text that highlighted important elements of participants' experiences were coded using an inductive approach. References within the codes highlighted themes of immediacy, trust, motivation, confusion, independence, and cultural expectations. Third, codes were organized into wider categories that represent common meanings. For instance, codes associated with immediacy, availability, and detail were grouped under the theme "discovering a new feedback ecology." The themes were examined in relation to the data to verify accuracy and reflect the experiences of the participants. Discrepant cases were analyzed to enhance the themes and illustrate both similarities and differences. Fifth, four overarching themes were identified: (1) discovering a new feedback ecology, (2) negotiating trust and understanding with AI, (3) reconstructing writing confidence and agency, and (4) challenges and tensions in human-AI mediation. The themes were thoroughly developed with illustrative quotations from participants, along with interpretive commentary. The objective was to articulate the themes and encapsulate the essence of learners' lived experiences. The NVivo software facilitated data management and coding; however, the interpretive work was conducted manually by the



researchers.

### *Trustworthiness and Ethics*

Maintaining trustworthiness was essential throughout the study. In accordance with the criteria set forth by Lincoln and Guba (1985), various strategies were utilized. The credibility of the study was strengthened by member checking, where participants were invited to review summaries of their interviews and verify the accuracy of the interpretations made. Engaging in peer debriefing with colleagues created chances to question assumptions and enhance the analysis. Transferability was enhanced by offering detailed descriptions of the context, participants, and data collection procedures, allowing readers to evaluate the relevance of the findings to different settings. Dependability was ensured through the maintenance of an audit trail documenting the decisions made throughout the data collection and analysis process, which encompassed coding schemes and the development of themes. Confirmability was established through the practice of reflexivity, as the researchers maintained analytic memos to consider their assumptions and possible biases. Approval from the institute's review board was secured for ethical considerations. Participants received information regarding the study's purpose, their right to withdraw, and the measures in place to safeguard their confidentiality. All data was stored securely and was accessible solely to the research team.

### **Findings**

The phenomenological analysis of interviews and reflective journals uncovered four interconnected themes that encapsulate the essence of Uzbekistani EFL learners' experiences with personalized AI feedback on their writing. The themes include: (1) discovering a new feedback ecology, (2) negotiating trust and understanding with AI, (3) reconstructing writing confidence and agency, and (4) challenges and tensions in human–AI mediation. Below, each theme is presented along with illustrative excerpts from participants, accompanied by interpretive commentary. The findings add to the expanding research on the influence of AI on L2 writing, especially in less studied areas such as Uzbekistan (e.g., Chen et al., 2020; Huawei & Aryadoust, 2023).

#### *Theme 1: Discovering a New Feedback Ecology*

For many participants, interacting with personalized AI feedback marked an experience within a new ecosystem of feedback that stood in stark contrast to their previous encounters with teacher comments. Learners consistently highlighted the promptness, accessibility, and thoroughness of personalized AI feedback, fundamentally changing their expectations of the feedback process. This change aligns with findings in CALL research, indicating that technology has the potential to transform learners' perceptions of their learning environments (Holmes et al., 2019). The conventional approach of waiting several days, occasionally up to a week, for feedback from teachers was sharply contrasted with the immediate responses provided by the AI. A student elaborated, describing how it affected their workflow:

*I didn't have to wait for the teacher when I was done with my essay. The AI told me what to do right away. It was like having a teacher who was always there, even at night. Before, I would finish writing and then just put it away because I knew I would have to wait. I can now revise right away, while the ideas are still fresh in my mind. It seems like I'm getting a lot more done. (Dilshod, Interview)*

This excerpt emphasizes both the rapidity of the feedback and its influence on the learner's writing process, encouraging a more iterative and involved approach. Another participant emphasized the detailed nature of the feedback:

*The AI told me exactly which sentence was hard to understand and why. My teacher usually just writes "unclear" or "improve this part". I could see the problem right away with AI. For instance, it showed me a sentence in the passive voice and told me how it made my point weaker. I didn't even know I was doing it, so that was really helpful. (Malika, Journal)*

This degree of detail enabled learners to tackle specific issues instead of struggling with ambiguous instructions. Students found this immediacy to be motivating, enabling them to revise their work while their ideas remained fresh, which contributed to a more dynamic and less frustrating writing process. Simultaneously, learners acknowledged that personalized AI feedback was not merely a substitute for teacher comments but rather an integral component of a wider feedback ecosystem. One participant expressed:

*I see AI as just one more way to get feedback. It helps me find mistakes on the surface quickly, but I still want to know what my teacher thinks about the bigger picture, like the main point and how the essay is put together. The AI is good at grammar and vocabulary, but my teacher knows how I write and can give me more specific advice.*

This indicates a sophisticated grasp of AI's function, framing it as an additional resource instead of a replacement for human knowledge. This theme demonstrates how personalized AI feedback transformed learners' temporal and emotional connection with feedback. The promptness and precision of AI comments fostered a feeling of ongoing support, in stark contrast to the delays and vagueness often associated with teacher feedback. Nevertheless, learners did not forsake the authority of teachers; rather, they integrated AI as a supportive tool within a wider framework of feedback. This illustrates the sociocultural concept of tools serving as facilitators of learning (Vygotsky, 1978), with AI acting as a novel mediational resource that broadens learners' chances for revision. This finding is consistent with recent research on blended learning environments, in which technology serves to enhance rather than substitute traditional teaching methods (Bernacki et al., 2020).

#### *Theme 2: Negotiating Trust and Understanding with AI*

Although learners valued the promptness of personalized AI feedback, they also conveyed mixed feelings regarding its reliability and precision. Numerous participants articulated a process of negotiating trust, frequently verifying AI suggestions with teachers or peers, showcasing a discerning approach to the information presented. This is consistent with research on information literacy, highlighting the significance of assessing sources and confirming information (Gilster, 1997). The necessity to validate AI recommendations highlighted a perceived deficiency in intrinsic authority, leading learners to pursue confirmation from reliable sources. A student commented:

*There were times when the AI suggested words that didn't make sense to me. I wasn't sure if they were right, so I asked my teacher. It said "utilize" instead of "use" in one sentence, and it just sounded wrong. I trusted the AI more after the teacher agreed that "use" was better in that situation, but I still double-check. (Shahnoza, Interview)*

This demonstrates a dependence on human validation to build trust in the AI system. Another participant shared their thoughts on the lack of clarity in AI explanations:

*The AI told me to change my sentence, but I didn't always get why. It gave the right answer, but not always the reason why. For instance, it marked a sentence as "awkward" but didn't say why it was awkward. That made me wonder if the suggestion was really helpful or just a random change. (Bekzod, Journal)*

The absence of clear reasoning behind the suggestions impeded learners' comprehension and acceptance of the feedback. Learners observed that their trust in AI increased over time as they witnessed enhancements in their writing. As one articulated:

*At first, I didn't think it was reliable. I thought it was just a machine and that it couldn't get what I was saying. But after a few weeks, I noticed that my essays were better, and my teacher agreed. Then I began to trust the AI more and see it as a useful tool instead of just a random suggestion maker. (Interview with Nilufar)*

This gradual acceptance indicates that trust is established through experiential validation and observable results. This theme emphasizes the analytical efforts that learners engage in while interacting with personalized AI feedback. Trust was established not spontaneously, but rather through careful negotiation, drawing comparisons with human authority and observing concrete advancements. The unclear nature of AI explanations led to moments of uncertainty, highlighting the need for transparency in feedback. The gradual acceptance of AI by learners illustrates a process of experiential validation, where trust is established through practice instead of mere assumption. This finding aligns with research on learner autonomy, indicating that learners must cultivate critical thinking skills to effectively assess and apply feedback (Mull, 2013).

### *Theme 3: Reconstructing Writing Confidence and Agency*

A notable discovery was the degree to which personalized AI feedback enhanced learners' confidence and sense of agency in writing. Numerous participants expressed a greater sense of autonomy in their revision processes and a reduced reliance on teachers, indicating a transformation in their self-view as writers. This aligns with Bandura's (1997) research on self-efficacy, which indicates that individuals' beliefs regarding their abilities affect their motivation and performance. The steady presence of feedback, along with the targeted guidance offered, nurtured a feeling of independence. A student elaborated:

*I used to wait for the teacher to tell me what was wrong. Without their help, I felt like I couldn't do anything. Now, I use AI to help me fix myself first. I feel more free, like I have someone to help me write. It's not enough to just get the right answer; I also need to learn how to find and fix my own mistakes. (Javlon, Interview)*

This illustrates a forward-thinking strategy for revision, enhanced by the prompt feedback offered by the AI system. Many learners observed that personalized AI feedback allowed them to perceive writing as an ongoing process instead of a final product. As someone expressed it:

*I used to think that writing was just a way to get a grade and finish the work. Now that I have AI, I see it as something I can work on little by little. It taught me to be patient because I learned that writing is a journey, not a goal. (Sardor, Interview)*

This change in viewpoint demonstrates a more profound comprehension of the cyclical process of writing and the significance of ongoing enhancement. This theme highlights the emotional aspect of personalized AI feedback. Through the delivery of prompt, precise, and occasionally uplifting remarks, personalized AI feedback cultivated a feeling of competence and independence. Learners started to reshape their identities as writers, transitioning from passive recipients of teacher feedback to proactive participants in their own revision journey. This corresponds with Bandura's (1997) concept of self-efficacy, indicating that personalized AI feedback can significantly influence learners' perceptions of their writing capabilities. This finding further corroborates research regarding the significance of feedback in fostering learner agency and self-regulation (Hattie & Timperley, 2007).

#### *Theme 4: Challenges and Tensions in Human–AI Mediation*

While there are advantages, students also noted difficulties and conflicts in their interactions with personalized AI feedback. Some expressed concerns about over-reliance, fearing that they might become dependent on AI suggestions, reflecting issues highlighted in the literature regarding the potential for deskilling (Carr, 2020). This issue was especially common among students who sensed they were diminishing their capacity to recognize and rectify mistakes on their own. A student admitted:

*I feel lazy sometimes. I just wait for the AI to fix everything. I worry that I won't learn to write if I always depend on it. My brain is getting used to just taking the suggestions without thinking for itself. (Umid, Interview)*

This emphasizes the significance of encouraging active critical engagement with personalized AI feedback instead of mere passive acceptance. Some observed that personalized AI feedback occasionally fell short in terms of cultural sensitivity or contextual relevance:

*The AI suggested words that are correct in English but don't fit our situation. For instance, it told me to use very formal words that we don't usually use in essays for school. It doesn't get the subtleties of our academic culture. (Madina, Journal)*

This highlights the necessity for AI systems to be tailored to particular cultural and linguistic environments. A few participants voiced their concerns regarding the ethical implications of utilizing AI: "I was worried that perhaps using AI feels akin to cheating." I was uncertain whether my teacher would accept it. Submitting an essay that was partially crafted by a machine felt inappropriate. (Farhod, Interview) This highlights a wider discussion regarding the ethical application of AI in education, emphasizing the necessity for clear guidelines and policies. This theme highlights the mixed feelings that come with learners' interaction with personalized AI feedback. They appreciated its immediacy and detail, yet acknowledged the potential risks of dependency, cultural mismatch, and ethical uncertainty. The existing tensions underscore the importance of thoughtfully incorporating AI into educational practices, making certain that it serves to enhance rather than supplant human feedback, and that students are instructed on its responsible use. This finding highlights the significance of cultivating essential AI literacy skills in both learners and educators (Holmes et al., 2019).

### **Discussion**

This study aimed to investigate the experiences of Uzbekistani EFL learners who interacted with personalized AI feedback regarding their writing. Through phenomenological analysis, four themes emerged: (1) discovering a new feedback ecology, (2) negotiating trust and

understanding with AI, (3) reconstructing writing confidence and agency, and (4) challenges and tensions in human–AI mediation. This section examines these findings in relation to prior research, emphasizing both similarities and differences, while providing a critical rationale for their importance in the context of EFL in Uzbekistan. It is important to recognize that the incorporation of AI into educational environments is influenced by prevailing power structures, cultural values, and teaching philosophies (Selwyn, 2016). Thus, a detailed comprehension of these contextual factors is crucial for interpreting the findings.

#### *Discovering a New Feedback Ecology*

The initial theme indicated that learners perceived personalized AI feedback as a novel ecosystem of feedback distinguished by its immediacy, availability, and specificity. This finding aligns closely with previous studies highlighting the importance of timely and adaptive AI feedback. For instance, Hwang (2014) and Holmes et al. (2019) contend that AI tools serve as virtual tutors, offering real-time, targeted assistance that supports learners' growth within their zone of proximal development (Vygotsky, 1978). In a similar vein, Meyer (2008) emphasize the significance of technology-driven feedback in helping learners concentrate on particular areas for enhancement during their revision process. Nonetheless, this focus on efficiency and personalization may neglect the social and relational dimensions of feedback, which hold significant importance in collectivist cultures such as Uzbekistan (Hofstede, 1984). Ting-Toomey (2018) emphasizes that recognizing cultural communication patterns is essential for the successful integration of new technologies in educational environments, as neglecting these patterns may result in ineffective implementation. This study builds on previous findings by demonstrating how immediacy alters learners' temporal connection with feedback. In Uzbekistan, teacher feedback is frequently hindered by workload constraints (Wright et al., 2019), while personalized AI feedback is perceived as being continuous and readily available. This immediacy not only enabled iterative revision but also alleviated frustration, as learners could respond to feedback while their ideas remained fresh. This is consistent with research on flow theory, indicating that immediate feedback boosts engagement and motivation (Csikszentmihalyi, 1990), leading to a more effective learning experience.

Simultaneously, learners perceived personalized AI feedback not as a substitute for teacher input, but as an integral component of a wider feedback ecosystem. This is consistent with the views of Winstone and Carless (2019), who contend that feedback ought to be perceived as a dialogic process that incorporates various sources. The positioning of AI by Uzbekistani learners as a complementary resource demonstrates a practical approach: they appreciated its immediacy and detail while still pursuing validation from their teachers. This indicates that personalized AI feedback is likely to be most impactful when incorporated into a multi-source feedback environment instead of being treated as an isolated solution. Nonetheless, it prompts inquiries regarding the possibility of AI reinforcing current hierarchies within the classroom, as teachers maintain ultimate control over the interpretation of feedback. Recent work by Solak (2024) indicates that learners frequently favor feedback from trusted sources, even when personalized AI feedback is clearly accurate, underscoring the significance of establishing trust in AI systems in educational settings. Additional investigation is required to examine how these dynamics manifest across various cultural contexts and teaching methods, as well as to determine the most effective ways to utilize the strengths of both human and AI feedback



sources.

### *Negotiating Trust and Understanding with AI*

The second theme emphasized learners' mixed feelings regarding the authority of personalized AI feedback. Trust was established not automatically, but rather through a process of negotiation that involved comparing teacher feedback and observing concrete advancements in writing. This finding reflects the concerns highlighted by Winstone and Carless (2019) regarding the interpretive efforts learners must engage in when interacting with feedback, underscoring that feedback involves not just passive reception but an active process of evaluation and meaning-making. This aligns with the observation made by Yu and Lee (2016) that the extent to which learners engage with feedback is greatly affected by their trust in the source delivering it. Nonetheless, this trust is not only based on cognitive aspects; it is also influenced by emotional factors, including learners' views on the AI's credibility and kindness (Mayer et al., 1995). Benk et al. (2025) argue that perceptions of AI trustworthiness are becoming increasingly important, especially in educational settings where technology is more integrated into the learning process.

Earlier research has indicated comparable trends of careful acceptance. For example, Apriani et al. (2024) discovered that although ChatBot-assisted instruction enhanced writing proficiency and self-efficacy, learners raised concerns regarding possible over-reliance and the risk of plagiarism. In a similar vein, Xu et al. (2024) illustrated that learners' trust in ChatGPT increased over time as they witnessed enhancements in their language abilities, indicating that observable positive results can encourage acceptance. This study supports these findings, showing that Uzbekistani learners initially questioned AI suggestions but gradually built trust as they compared them with teacher feedback and noted improvements in their writing. This indicates that a combined strategy, integrating personalized AI feedback alongside human support, could be especially beneficial in enhancing learner confidence and encouraging the effective use of feedback.

This study makes a significant contribution by highlighting the lack of clarity in AI explanations. Multiple learners expressed uncertainty when AI proposed modifications without providing clear reasoning. This underscores a constraint of existing AI systems, which frequently offer corrections lacking adequate educational context. Although Bai and Nordin (2025) and Yan and Zhang (2024) highlight the advantages of regular personalized AI feedback, the current findings indicate that mere frequency is not enough; transparency and interpretability play vital roles in establishing trust and enhancing the learning process. XU et al. (2025) further emphasize this point, suggesting that learners are more inclined to engage with feedback when they comprehend the reasoning behind it. In settings such as Uzbekistan, where educators are typically regarded as the primary authority, the lack of clarity surrounding personalized AI feedback could deepen skepticism and impede its successful incorporation into the educational experience. This lack of clarity also brings to light worries regarding the possibility of AI perpetuating current power disparities, as learners may passively embrace recommendations without cultivating a critical grasp of the fundamental reasoning behind them.

### *Reconstructing Writing Confidence and Agency*

The third theme indicated that personalized AI feedback played a significant role in enhancing

learners' confidence and agency, allowing them to view themselves as more independent writers. This finding is consistent with Bandura's (1997) theory of self-efficacy, which suggests that confidence in one's abilities promotes persistence and motivation. This aligns with research indicating that personalized AI feedback can improve self-efficacy through consistent and supportive input (Abdelhalim & Alsehibany, 2025; Huang & Mizumoto, 2025; Song & Song, 2023). It is essential to recognize that self-efficacy extends beyond mere individual belief; it is also influenced by social and environmental factors (Zimmerman, 2000). Dweck (2006) posits that cultivating a growth mindset—the conviction that abilities can be enhanced through commitment and effort—is essential for establishing enduring self-efficacy and resilience in learners.

This interpretation is supported by empirical evidence. Apriani et al. (2024) discovered that instruction aided by ChatBot enhanced both writing proficiency and self-efficacy, as well as self-regulation. In a similar vein, Xu et al. (2024) showed that the use of ChatGPT improved both self-efficacy and enjoyment, with enjoyment acting as a mediator in the relationship. This indicates that positive emotional experiences can enhance the advantages of AI-supported learning. This study builds on previous findings by demonstrating how personalized AI feedback has facilitated a transformation in learners' identities: transitioning from passive recipients of teacher corrections to active participants in their own revision process. This transition is in harmony with the principles of learner-centered pedagogy, highlighting the significance of empowering learners to assume responsibility for their own education (Broom, 2015). This sense of agency holds significant importance in situations where learners might feel disempowered by conventional teaching methods, promoting a more proactive and engaged learning experience.

An especially significant element of this theme was the encouraging impact of positive reinforcement. Learners appreciated both corrections and affirmations of their strengths, including remarks that emphasized clear organization or effective vocabulary use. This supports the argument made by Hyland and Hyland (2019) that feedback must strike a balance between criticism and encouragement to maintain motivation and foster a positive learning environment. In the context of Uzbekistan, where students frequently feel anxious about writing in English (Akhmedjanova, 2022), the emotional aspect of personalized AI feedback seems particularly important. Recent research by Miers (2021) underscores the significance of positive feedback in alleviating anxiety and enhancing engagement in online learning environments, further stressing the necessity for AI systems to offer not just corrective guidance but also motivational support. This theme importantly questions the belief that personalized AI feedback is solely about correction. Rather, it illustrates that personalized AI can assume an emotional role, nurturing confidence and agency. This indicates that the design of AI feedback systems ought to emphasize not just accuracy, but also motivational components, fostering a more supportive and empowering learning experience.

#### *Challenges and Tensions in Human–AI Mediation*

The fourth theme emphasized the difficulties and conflicts that learners faced in their interactions with personalized AI feedback. Recurring concerns included over-reliance, cultural mismatch, and ethical uncertainty. The findings align with those of Apriani et al. (2024), who noted that learners expressed concerns about becoming reliant on ChatBots and raised issues

regarding plagiarism. They align with the findings of Seyri and Ghiasvand (2025), who discovered that learners' emotional experiences with AI were dynamic and occasionally ambivalent, highlighting the intricate relationship between technology and learner affect. The worry regarding over-reliance highlights a larger conflict in educational technology: although AI can support learning, it might also lead to dependency if learners depend on it without critical thinking. This is consistent with the cautions raised by Yip (2012) and Mizumoto (2012) regarding the impact of low self-efficacy, which may lead learners to choose simpler options, thus potentially obstructing the growth of independent learning skills. In this study, several learners expressed feelings of "laziness" when AI provided corrections for everything, prompting inquiries into the balance between support and autonomy. This emphasizes the significance of fostering metacognitive awareness, motivating learners to contemplate their own learning processes and to cultivate strategies for independent problem-solving (Flavell, 1979).

Another significant issue was the cultural mismatch. Learners observed that AI occasionally proposed vocabulary or structures that, while grammatically accurate, were contextually unsuitable for academic writing in Uzbekistan. This finding highlights the significance of contextual sensitivity in feedback, reflecting Hyland's (2019) assertion that academic writing is influenced by disciplinary and cultural conventions. Although personalized AI feedback is developed using global English corpora, it does not consistently meet local expectations, which can lead to confusion for learners. This also raises questions regarding the potential for AI to perpetuate linguistic imperialism, imposing dominant norms on local writing practices (Phillipson, 1992), a concern that necessitates careful consideration in diverse educational contexts. Canagarajah (2012) emphasizes that acknowledging and appreciating linguistic diversity is essential for fair educational practices.

Ultimately, ethical concerns arose, as some learners worried that utilizing AI could be seen as an act of cheating. This highlights wider discussions regarding the validity of AI in educational settings (Holmes et al., 2019). In environments that prioritize academic integrity, students might be reluctant to utilize personalized AI feedback transparently. This highlights the necessity for well-defined ethical guidelines and policies concerning the application of AI in education. These tensions underscore the necessity for teacher mediation. Although personalized AI feedback provides promptness and specificity, educators are essential in helping students understand and utilize it in a responsible manner. This aligns with Winstone and Carless's (2019) advocacy for feedback literacy, highlighting the necessity for learners to be instructed not only in receiving feedback but also in evaluating and responding to it effectively. Additionally, educators can assist students in addressing the ethical challenges linked to AI usage, promoting a culture of academic honesty and responsible technology incorporation.

## **Conclusion**

This phenomenological study has examined the lived experiences of Uzbekistani EFL learners who interacted with personalized AI feedback on their writing. The study highlights the perspectives of learners, revealing that personalized AI feedback was perceived as immediate, detailed, and motivating, while also bringing forth feelings of ambivalence, the need for trust negotiation, and worries about potential over-reliance. Four themes encapsulated these experiences: the exploration of a new feedback ecology, the negotiation of trust and

understanding with AI, the reconstruction of writing confidence and agency, and the challenges and tensions inherent in human–AI mediation. The findings add to an expanding collection of research that emphasizes the intricate relationship among technology, pedagogy, and learner agency in L2 learning (e.g., Benson, 2001; Thorne, 2003).

The findings enhance the expanding research on AI in language education by redirecting attention from quantifiable results to the experiential aspects of feedback. They show that AI feedback goes beyond just correction; it also engages emotions and motivation, transforming learners' identities as writers and their sense of agency. This is consistent with recent research in positive psychology, highlighting the significance of cultivating self-efficacy and intrinsic motivation in the learning process (Deci & Ryan, 2000). The study simultaneously emphasizes the cultural and ethical intricacies involved in incorporating AI into feedback practices in settings like Uzbekistan, where teachers are typically regarded as the ultimate authority. This highlights the significance of taking into account the sociocultural context when introducing new technologies in education (Warschauer & Healey, 1998). The results indicate that effectively incorporating AI feedback necessitates a deep comprehension of local norms, values, and educational philosophies.

### **Implications**

This study's findings carry important implications for various stakeholders in EFL education, especially in contexts such as Uzbekistan, where challenges in effective writing instruction persist. In addition to practical recommendations, these implications highlight wider considerations about the future of language learning and assessment. For learners, personalized AI feedback offers a chance to develop greater independence, confidence, and agency in their writing, as long as it is seen as a means for reflection and ongoing improvement instead of a quick fix. It is essential to cultivate “feedback literacy” (Winstone & Carless, 2019) to ensure that AI serves to empower learners instead of creating dependency. This requires clear instruction on how to assess AI suggestions and identify potential biases. In a similar vein, educators need to redefine their roles within an AI-driven feedback environment, welcoming AI as a supportive resource that enables them to concentrate on advanced skills like argumentation, critical thinking, and rhetorical awareness, all while helping students evaluate the relevance and quality of AI-generated recommendations.

These shifts, consequently, require strong systemic support for effective implementation. Curriculum designers are tasked with the careful integration of personalized AI feedback into structured writing courses, creating layered feedback processes that strategically blend the immediacy of AI with the nuanced insights of teacher input, all while ensuring alignment with course objectives and local academic conventions. Institutions should ensure access to dependable AI tools, along with thorough training for educators and learners, while also setting forth clear ethical standards for AI usage. Policymakers play a crucial role in facilitating the integration of AI into national language education strategies by providing infrastructure funding, implementing professional development initiatives, and creating culturally sensitive AI tools. This study highlights the importance of ongoing phenomenological research to examine learners' experiences with AI, especially in relation to cultural influences and the long-term impacts on writing development. Such insights will ultimately guide best practices for the responsible and effective integration of AI in EFL contexts.

### Limitations and Suggestions for Further Research

This study, like all qualitative research, has limitations that must be recognized. The sample comprised 30 intermediate-level learners from a single language institute located in Tashkent. Although the findings offer valuable insights into the experiences of these learners, they are not applicable to all EFL learners in Uzbekistan or elsewhere. The particular context of the study (i.e., a private language institute) might have also shaped the findings, as learners in these environments may possess different expectations and experiences compared to those in public schools or universities. Secondly, the research depended on self-reported information gathered from interviews and journals, which could be affected by social desirability or recall bias. Participants might have hesitated to share negative views on personalized AI feedback, or they could have struggled to remember their experiences accurately. Third, the study concentrated on a single AI tool (ChatGPT), and the experiences of learners may vary with other platforms that offer different kinds of feedback. The fast-paced evolution of AI technology indicates that the findings could quickly become obsolete as new tools and features are introduced.

Future research may expand upon this study in various ways. Initially, comparative studies across various proficiency levels and institutional contexts in Uzbekistan would offer a more comprehensive insight into how learners engage with personalized AI feedback. Additionally, longitudinal research could investigate the evolution of learners' trust, confidence, and agency over prolonged periods of interaction with personalized AI feedback. Third, research that combines phenomenological accounts with classroom observations or analyses of learners' revisions could offer a more complete understanding of how personalized AI feedback influences writing development. Ultimately, cross-cultural studies could explore how learners from various educational traditions navigate the authority of personalized AI feedback, providing valuable insights into the cultural aspects of human–AI mediation. Exploring the effects of various forms of personalized AI feedback, such as grammar checkers, plagiarism detectors, and stylistic editors, would be beneficial.

### References

- Abdelhalim, S. M., & Alsehibany, R. A. (2025). Integrating AI-powered tools in EFL pronunciation instruction: effects on accuracy and L2 motivation. *Computer Assisted Language Learning*, 1-25. <https://doi.org/10.1080/09588221.2025.2534015>
- Akhmedjanova, D. (2022). Writing practices of university students in an online academic English course in Uzbekistan. *Writing & Pedagogy*, 14(1), 129-150. <https://doi.org/10.1558/wap.20895>
- Aldino, A. A., Tsai, Y. S., Mello, R. F., Gašević, D., & Chen, G. (2024). Enhancing feedback quality at scale: Leveraging machine learning for learner-centered feedback. *Computers and Education: Artificial Intelligence*, 7, 100332. <https://doi.org/10.1016/j.caeai.2024.100332>
- Apriani, E., Cardoso, L., Obaid, A. J., Muthmainnah, M., Wijayanti, E., Esmianti, F., & Supardan, D. (2024). Impact of AI-powered chatbots on EFL students' writing skills, self-efficacy, and self-regulation: A mixed-methods study. *Global Educational Research Review*, 1(2), 57–72. <https://doi.org/10.71380/GERR-08-2024-8>
- Bai, X., & Nordin, N. R. M. (2025). Human-AI collaborative feedback in improving EFL writing performance: An analysis based on natural language processing technology.



- Eurasian Journal of Applied Linguistics*, 11(1), 1-19.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Beatty, K. (2013). *Teaching & researching: Computer-assisted language learning*. Routledge.
- Benk, M., Kerstan, S., von Wangenheim, F., & Ferrario, A. (2025). Twenty-four years of empirical research on trust in AI: a bibliometric review of trends, overlooked issues, and future directions. *AI & Society*, 40(4), 2083-2106. <https://doi.org/10.1007/s00146-024-02059-y>
- Benson, P. (2001). *Autonomy in language learning*. Longman.
- Bernacki, M. L., Greene, M. J., & Lobczowski, N. G. (2021). A systematic review of research on personalized learning: Personalized by whom, to what, how, and for what purpose (s)?. *Educational Psychology Review*, 33(4), 1675-1715. <https://doi.org/10.1007/s10648-021-09615-8>
- Biber, D., Nekrasova, T., & Horn, B. (2011). The effectiveness of feedback for L1-English and L2-writing development: A meta-analysis. *ETS Research Report Series*, 2011(1), i-99. <https://doi.org/10.1002/j.2333-8504.2011.tb02241.x>
- Bitchener, J., & Ferris, D. R. (2012). *Written corrective feedback in second language acquisition and writing*. Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Broom, C. (2015). Empowering students: Pedagogy that benefits educators and learners. *Citizenship, Social and Economics Education*, 14(2), 79-86. <https://doi.org/10.1177/2047173415597142>
- Canagarajah, S. (2012). *Translingual practice: Global Englishes and cosmopolitan relations*. Routledge.
- Carr, N. (2020). *The shallows: What the internet is doing to our brains*. W. W. Norton & Company.
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *IEEE access*, 8, 75264-75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- Das, S., Mutsuddi, I., & Ray, N. (2025). Artificial intelligence in adaptive education: A transformative approach. In *Advancing adaptive education: Technological innovations for disability support* (pp. 21-50). IGI Global Scientific Publishing.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- Dekhakhena, A. (2025). AI-powered personalized learning in EFL acquisition: Exploring adaptive instruction and feedback systems. *Journal of Studies in Language, Culture and Society (JSLCS)*, 8(1), 111-131.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.
- Escalante, J., Pack, A., & Barrett, A. (2023). AI-generated feedback on writing: Insights into efficacy and ENL student preference. *International Journal of Educational Technology in*

- Higher Education*, 20(1), 57. <https://doi.org/10.1186/s41239-023-00425-2>
- Flavell, J. H. (1979). *Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry*. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition & Communication*, 32(4), 365-387. <https://doi.org/10.58680/cc3198115885>
- Gilster, P. (1997). *Digital literacy*. John Wiley & Sons.
- Guo, Y., & Wang, Y. (2025). Exploring the effects of artificial intelligence application on EFL students' academic engagement and emotional experiences: A Mixed-Methods study. *European Journal of Education*, 60(1), e12812. <https://doi.org/10.1111/ejed.12812>
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112. <https://doi.org/10.3102/003465430298487>
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. Sage.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Huang, J., & Mizumoto, A. (2025). The role of generative AI in mediating L2MSS and engagement with written feedback in EFL learning: A structural equation modeling approach. *Annual Review of Applied Linguistics*, 1-17. <https://doi.org/10.1017/S0267190525000029>
- Huawei, S., & Aryadoust, V. (2023). A systematic review of automated writing evaluation systems. *Education and Information Technologies*, 28(1), 771-795. <https://doi.org/10.1007/s10639-022-11200-7>
- Hwang, G. J. (2014). Definition, framework and research issues of smart learning environments-a context-aware ubiquitous learning perspective. *Smart Learning Environments*, 1(1), 1-14. <http://www.slejournal.com/content/1/1/4>
- Hyland, K. (2019). *Second language writing* (2<sup>nd</sup> ed.). Cambridge University Press.
- Hyland, K., & Hyland, F. (2006). Feedback on second language students' writing. *Language Teaching*, 39(2), 83-101. <https://doi.org/10.1017/S0261444806003399>
- Hyland, K., & Hyland, F. (Eds.). (2019). *Feedback in second language writing: Contexts and issues*. Cambridge University Press.
- Jandt, F. E. (1998). *Intercultural Communication: An Introduction*. Sage Publications.
- Jin, F. J. Y., Maheshi, B., Lai, W., Li, Y., Gasevic, D., Chen, G., ... & Tsai, Y. S. (2025). Students' perceptions of generative AI-powered learning analytics in the feedback process: A feedback literacy perspective. *Journal of Learning Analytics*, 12(1), 152-168. <https://doi.org/10.18608/jla.2025.8609>
- Laurillard, D. (2008). Technology enhanced learning as a tool for pedagogical innovation. *Journal of Philosophy of Education*, 42(3-4), 521-533. <https://doi.org/10.1111/j.1467-9752.2008.00658.x>
- Lee, H. (2008). Learner agency and identity in second language writing. *ITL-International Journal of Applied Linguistics*, 156(1), 109-128. <https://doi.org/10.2143/ITL.156.0.2034425>
- Lee, I. (2016). Teacher education on feedback in EFL writing: Issues, challenges, and future

- directions. *Tesol Quarterly*, 50(2), 518-527. <https://www.jstor.org/stable/43893834>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). *An integrative model of organizational trust*. *Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.5465/amr.1995.9508080335>
- Miers, A. C. (2021). An investigation into the influence of positive peer feedback on self-relevant cognitions in social anxiety. *Behaviour Change*, 38(3), 193-207. <https://doi.org/10.1017/bec.2021.8>
- Min, H. T. (2006). The effects of trained peer review on EFL students' revision types and writing quality. *Journal of Second Language Writing*, 15(2), 118-141. <https://doi.org/10.1016/j.jslw.2006.01.003>
- Mirzaei, S., & Khayer, B. (2025). Enhancing feedback personalisation with AI-generated analytics: A narrative review. *Learning Letters*, 5, 50-50. <https://doi.org/10.59453/ll.v5.50>
- Mizumoto, A. (2012). Exploring the effects of self-efficacy on vocabulary learning strategies. *Studies in Self-Access Learning Journal*, 3(4), 423-437. [http://purl.org/coar/resource\\_type/c\\_6501](http://purl.org/coar/resource_type/c_6501)
- Mull, J. (2013). The learner as researcher: Student concordancing and error correction. *Studies in Self Access Learning Journal*, 4(1), 43-55.
- Norton, B. (2013). *Identity and language learning: Extending the conversation*. Multilingual Matters.
- Oxford, R. (2015). Emotion as the amplifier and the primary motive: Some theories of emotion with relevance to language learning. *Studies in second language learning and Teaching*, (3), 371-393.
- Ozodbekova, M. (2025). The growth of English language learning in Uzbekistan. *Bulletin News in New Science Society*, 2(6), 308–318.
- Panadero, E., Brown, G. T., & Strijbos, J. W. (2016). The future of student self-assessment: A review of known unknowns and potential directions. *Educational Psychology Review*, 28(4), 803-830. <https://doi.org/10.1007/s10648-015-9350-2>
- Pandin, M. G. R., & Yanto, E. S. (2023). The what and how of existential phenomenological research. *The Qualitative Report*, 28(3), 816-827. <https://doi.org/10.46743/2160-3715/2023.6268>
- Phillipson, R. (1992). *Linguistic imperialism*. Oxford University Press.
- Rahimi, M. (2021). A comparative study of the impact of focused vs. comprehensive corrective feedback and revision on ESL learners' writing accuracy and quality. *Language Teaching Research*, 25(5), 687-710. <https://doi.org/10.1177/1362168819879182>
- Ramesh, D., & Sanampudi, S. K. (2022). An automated essay scoring systems: a systematic literature review. *Artificial Intelligence Review*, 55(3), 2495-2527. <https://doi.org/10.1007/s10462-021-10068-2>
- Rezai, A., Namaziandost, E., & Hwang, G. J. (2024). How can ChatGPT open promising avenues for L2 development? A phenomenological study involving EFL university students in Iran. *Computers in Human Behavior Reports*, 16, 100510. <https://doi.org/10.1016/j.chbr.2024.100510>
- Selwyn, N. (2016). *Is technology good for education?* Polity Press.

- Seyri, H., & Ghiasvand, F. (2025). "Teaching is basically feeling": Unpacking EFL Teachers' perceived emotions and regulatory strategies in AI-Powered L2 speaking and writing skills instruction. *Computers and Education Open*, 100264. <https://doi.org/10.1016/j.caeo.2025.100264>
- Solak, E. (2024). Examining writing feedback dynamics from CHATGPT AI and human educators: A comparative study. *Педагогика*, 96(7), 955-970.
- Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in psychology*, 14, 1260843. <https://doi.org/10.3389/fpsyg.2023.1260843>
- Sotlikova, R. (2024). Students' attitude towards teacher feedback : A case study of Uzbekistan EFL learners. *Asian Journal of Assessment in Teaching and Learning*, 13(1), 59–66. <https://doi.org/https://doi.org/10.37134/ajatel.vol13.1.7.2023>
- Strielkowski, W., Grebennikova, V., Lisovskiy, A., Rakhimova, G., & Vasileva, T. (2025). AI-driven adaptive learning for sustainable educational transformation. *Sustainable Development*, 33(2), 1921-1947. <https://doi.org/10.1002/sd.3221>
- Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills* (Vol. 1). University of Michigan Press.
- Tai, H. C., Lin, W. C., & Yang, S. C. (2015). Exploring the effects of peer review and teachers' corrective feedback on EFL students' online writing performance. *Journal of Educational Computing Research*, 53(2), 284-309. <https://doi.org/10.1177/0735633115597490>
- Tam, A. C. F. (2025). Interacting with ChatGPT for internal feedback and factors affecting feedback quality. *Assessment & Evaluation in Higher Education*, 50(2), 219-235. <https://doi.org/10.1080/02602938.2024.2374485>
- Thorne, S. L. (2003). *Artifacts and cultures of use in intercultural communication*. *Language Learning & Technology*, 7(2), 38–60. <http://lt.msu.edu/vol7num2/thorne/>
- Ting-Toomey, S. (2018). *Communicating across cultures*. Guilford Press.
- van Manen, M. (2016). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). Routledge.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Warschauer, M., & Healey, D. (1998). *Computers and language learning: Critical perspectives*. Cambridge University Press.
- Winstone, N. E., & Carless, D. (2019). *Designing effective feedback processes in higher education: A learning-focused approach*. Routledge.
- Wright, M. C., Bergom, I., & Bartholomew, T. (2019). Decreased class size, increased active learning? Intended and enacted teaching strategies in smaller classes. *Active Learning in Higher Education*, 20(1), 51-62. <https://doi.org/10.1177/1469787417735607>
- Xu, S., Chen, P., & Zhang, G. (2024). Exploring the impact of the use of ChatGPT on foreign language self-efficacy among Chinese students studying abroad: The mediating role of foreign language enjoyment. *Heliyon*, 10(21), 1-9. <https://doi.org/10.1016/j.heliyon.2024.e39845>
- Xu, S., Su, Y., & Liu, K. (2025). Investigating student engagement with AI-driven feedback in translation revision: A mixed-methods study. *Education and Information Technologies*, 1-



27. <https://doi.org/10.1007/s10639-025-13457-0>
- Yan, D., & Zhang, S. (2024). L2 writer engagement with automated written corrective feedback provided by ChatGPT: A mixed-method multiple case study. *Humanities and Social Sciences Communications*, 11(1), 1-14. <https://doi.org/10.1057/s41599-024-03543-y>
- Yesilyurt, Y. E. (2023). AI-enabled assessment and feedback mechanisms for language learning: Transforming pedagogy and learner experience. In *Transforming the language teaching experience in the age of AI* (pp. 25-43). IGI Global.
- Yip, M. C. (2012). Learning strategies and self-efficacy as predictors of academic performance: a preliminary study. *Quality in Higher Education*, 18(1), 23-34. <https://doi.org/10.1080/13538322.2012.667263>
- Yu, S., & Lee, I. (2016). Exploring Chinese students' strategy use in a cooperative peer feedback writing group. *System*, 58, 1-11. <https://doi.org/10.1016/j.system.2016.02.005>
- Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82-91. <https://doi.org/10.1006/ceps.1999.1052>
- Zou, S., Guo, K., Wang, J., & Liu, Y. (2024). Investigating students' uptake of teacher-and ChatGPT-generated feedback in EFL writing: A comparison study. *Computer Assisted Language Learning*, 1-30. <https://doi.org/10.1080/09588221.2024.2447279>

## Biodata

**Professor Dr. Diyorjon Abdullaev** earned his Bachelor's degree in History Teaching Methods (2015) and Master's degree in Methodology of Teaching Social and Humanities (History) (2017) from the Tashkent State Pedagogical University named after Nizami. From 2018 to 2019, he pursued doctoral studies at the same university, conducting extensive research in history and pedagogy. In 2023, he received the Doctor of Historical Sciences (DSc) degree ahead of schedule, after previously earning the title of Associate Professor (2021) and later Professor (2025). Dr. Abdullaev has authored around 150 scholarly works, including 3 monographs, 4 co-authored textbooks, 3 educational manuals, and over 50 articles published in national and international journals. His research has been presented in conferences across Europe, Asia, and the United States. He has completed advanced training programs and academic internships at leading institutions such as Moscow State University, Kazan Federal University, and the National Academy of Pedagogical Sciences of Ukraine. Currently, Professor Abdullaev serves as Vice-Rector for Scientific Affairs and Innovations and Professor of History at the Urgench State Pedagogical Institute, contributing actively to the development of historical scholarship and academic innovation in Uzbekistan. <https://orcid.org/0000-0001-8560-5604>.

**Dr. Aziz Abdazimov** was born on May 13, 1973, in the Turkestan District of the Shymkent Region. He graduated with honors from high school in 1990 and earned his degree in History Education and Methodology from the Nizami Tashkent State Pedagogical Institute in 1995. From 1995 to 2004, Dr. Abdazimov worked as a history teacher, chief specialist at the Tashkent City Department of Spirituality and Enlightenment, and lecturer in the Department of Foreign History at Tashkent State Pedagogical University, later serving as Head of the Research Department (2004–2005). He currently serves as Vice-Rector for Research and Innovation at Profi University. In 2022, he defended his PhD dissertation titled “Pedagogical Aspects of the Development of the Education System in Turkestan at the Beginning of the 20th Century” and



was awarded the academic title of Associate Professor in 2024. Dr. Abdazimov has supervised two PhD candidates, authored one monograph, three international papers, and over twenty national research articles. He is a recipient of the “10 Years of Independence of the Republic of Uzbekistan” and “Excellent Public Education” badges. <https://orcid.org/0009-0002-0536-2871>.

**Dr. Zilola Khusainova** was born on December 16, 1989, in Khiva, Khorezm Region, Uzbekistan. She earned her Bachelor's degree in Applied Mathematics and Computer Science from Urgench State University (2013) and her Master's degree in Computer Linguistics from the Alisher Navoi Tashkent State University of Uzbek Language and Literature (2022). In 2024, she defended her PhD dissertation in Philology titled “Linguistic Foundations and Software for Tokenizing, Stemming, and Lemmatizing Lexical Units of the Uzbek Language.” Dr. Khusainova currently serves as a Senior Lecturer in the Department of Computer Linguistics and Digital Technologies at the same university. Her research focuses on artificial intelligence and natural language processing (NLP) for the Uzbek language, including POS tagging, morphological analysis, corpus linguistics, machine translation, sentiment analysis, and the development of the UzWordNet ontology. She has authored over 90 scholarly publications, including 7 papers indexed in Scopus, and has more than 75 works registered in DBLP and ResearchGate. An active member of the international NLP community, Dr. Khusainova leads training programs and workshops, contributing significantly to the advancement of Uzbek computational linguistics. <https://orcid.org/0000-0003-4357-7515>.

**Dr. Samariddin Makhmudov** was born on March 20, 1984, in Langar, Khatirchi District, Navoi Region, Uzbekistan. He earned his Bachelor's degree in Information Systems in Economics (2007) and Master's degree in Logistics (2019) from the Tashkent State University of Economics. In 2023, he successfully defended his PhD dissertation titled “Improving Financing of Enterprises in the Logistics System” at the Tashkent State University of Economics. Dr. Makhmudov has held various professional and academic positions, including roles at Halk Bank, Trastbank, Davr Bank, and the Ministry of Defense of the Republic of Uzbekistan. Since 2019, he has served as Assistant, Senior Lecturer, and currently as Associate Professor (PhD) at Mamun University. His research interests encompass digital economics, environmental and green economy, macroeconomics, and finance. He has authored over 70 scholarly works, including 41 articles indexed in Scopus, and holds a Hirsch index of 7. <https://orcid.org/0009-0004-7315-6724>.

**Dr. Dilfuza Sagdullaeva** is an accomplished scholar of Arabic linguistics and philology. She defended her Candidate (PhD) dissertation in 2021 on “Structural-Semantic Investigation of Arabic Sentences and Loanwords in the Work Qisasi Rabguzi,” earning the academic degree of Doctor of Philosophy (PhD) in Philological Sciences, and was awarded the title of Associate Professor in 2025. Her research interests include Arabic syntax, historical linguistics, and the interaction of Arabic and Turkic languages in classical texts. She is the author of several educational and methodological resources, notably the Ministry-approved manual “Arabic Language (for 1st-Year Students of Textual and Source Studies),” the monograph “A Structural-

*Semantic Study of Arabic Loanwords in Qisasi Rabg‘uzi,” and the textbook “Collection of Texts and Exercises in Arabic.” Dr. Sagdullaeva has published over 50 scholarly works, including one textbook, one monograph, one teaching manual, and numerous articles in national and international journals and conference proceedings across Russia, Kazakhstan, Poland, Brazil, Spain, Indonesia, and France. She is widely recognized as a leading educator and researcher in Arabic linguistics and philological studies in Uzbekistan. <https://orcid.org/0000-0001-6264-3413>.*