

## MASTERING AUTONOMOUS LANGUAGE LEARNING AND ASSIGNMENT CHECKING WITH AI

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### **Abstract**

The integration of artificial intelligence (AI) into language learning has significantly transformed how learners achieve autonomy and approach assignment evaluation. AI tools, such as Grammarly, Duolingo, ChatGPT, and Turnitin, offer real-time feedback, adaptive learning pathways, and efficient evaluation mechanisms, reshaping traditional educational methods. This study examines the multifaceted role of AI in fostering independence, enhancing personalized learning, and improving assignment checking processes. While AI promotes autonomy and provides flexible, tailored support, challenges remain, including over-reliance, limitations in contextual understanding, and difficulties in fostering critical thinking. The paper emphasizes the importance of a balanced approach, integrating AI as a supplement to traditional methods to ensure comprehensive language development. Additionally, it highlights the need for advancements in AI's ability to address cultural and contextual nuances, enhancing its effectiveness in language education. By leveraging AI thoughtfully, learners and educators can maximize its potential, creating a more adaptive and efficient learning environment while addressing its limitations. This study offers insights into the future of AI in education, advocating for its strategic integration to empower both independent learners and traditional teaching practices.

**Key words:** Artificial intelligence in education, autonomous language learning, AI-powered tools, assignment evaluation, personalized learning, language learning technology, AI in language education, adaptive learning pathways, real-time feedback, contextual understanding in AI, AI limitations in education, balancing AI and traditional methods.

### **1. Introduction**

The process of learning a language is complex, requiring consistent practice, active engagement, and effective feedback. Traditional language education has long relied on structured lessons, instructor feedback, and peer collaboration. However, the rapid advancement of artificial intelligence (AI) is reshaping this landscape, offering learners innovative tools to take greater control of their educational journey. By

providing real-time feedback, adaptive learning pathways, and efficient assignment evaluation, AI has become a transformative force in language education.

Autonomous learning, where individuals take responsibility for their own progress, has gained traction in recent years as learners seek more flexible and personalized approaches. AI-powered tools like Grammarly, Duolingo, ChatGPT, and Turnitin are bridging the gap between independence and structured learning by enabling personalized language practice and assignment checking. These tools cater to a wide range of learners, from beginners to advanced levels, tailoring their feedback and recommendations to individual needs.

Despite their numerous advantages, AI tools also present challenges. While they offer speed and precision, they may lack the ability to fully understand cultural nuances, idiomatic expressions, or the creativity required in language use. Moreover, over-reliance on AI can hinder critical thinking and the ability to self-correct, raising concerns about the depth of learning. For educators and learners, finding a balance between leveraging AI's potential and maintaining traditional methods is crucial to achieving comprehensive language proficiency.

This paper examines the intersection of AI and autonomous language learning, focusing on how AI tools enhance learner independence and streamline assignment evaluation. Drawing on existing literature, survey results, and practical methodologies, the study explores the dual-edged impact of AI on the learning process. While highlighting the benefits of AI in fostering flexibility, accessibility, and efficiency, it also addresses the challenges of over-dependence and the limitations in contextual understanding.

By providing insights into the role of AI in language education, this research aims to guide learners, educators, and developers in navigating its potential while addressing its shortcomings. It advocates for the thoughtful integration of AI as a supplement to traditional teaching methods, ensuring that learners achieve not only efficiency but also depth and critical engagement in their language-learning journey. The future of AI in language education lies in enhancing its cultural and contextual comprehension, fostering a more balanced and effective approach to learning.

This paper contributes to the ongoing dialogue on the role of AI in education, offering recommendations for its application to create a more adaptive and learner-centered environment. Through strategic integration, AI has the potential to redefine the language learning experience, empowering learners with the tools they need to succeed while maintaining the human elements essential to mastering a language.

## 2. Literature review

The concept of autonomous learning, where individuals take responsibility for their educational progress, has been a significant focus in language education research

for decades. Holec (1981) pioneered the discourse on learner autonomy, defining it as the ability to take charge of one's own learning and emphasizing the importance of self-regulation and motivation. With advancements in technology, this concept has expanded to include the use of artificial intelligence (AI) as a key enabler for fostering independence. Researchers and educators have increasingly explored how AI tools contribute to autonomous language learning and assignment checking, bridging the gap between personalized support and efficient evaluation.

Kumar and D'Silva (2020) highlighted the transformative potential of AI in language learning, particularly in addressing individual learner needs. Their study demonstrated how AI tools such as Grammarly and Duolingo adapt to learners' progress, providing personalized feedback that enhances language proficiency. They argue that AI promotes autonomy by empowering learners to identify and correct their errors independently. However, they also caution that the overuse of AI could reduce opportunities for self-correction and critical thinking.

Similarly, Godwin-Jones (2017) discussed the role of mobile and intelligent technologies in promoting language learning autonomy. He emphasized that AI-enabled applications offer flexible learning pathways and encourage self-directed learning by catering to diverse needs. However, he noted that the limitations of these tools, particularly in understanding cultural and contextual nuances, could hinder their overall effectiveness in achieving holistic language learning outcomes.

The use of AI for assignment checking has also garnered attention for its ability to streamline evaluation processes. In their research, Turnitin (2022) highlighted how AI-powered plagiarism detection tools enhance academic integrity and provide detailed feedback on writing style and grammar. They emphasized that such tools not only improve the efficiency of assignment checking but also contribute to the development of writing skills by offering actionable insights.

Similarly, the work of Luo and Sun (2020) focused on the effectiveness of AI tools like Grammarly in improving academic writing. Their study revealed that learners who regularly used Grammarly showed significant improvement in grammatical accuracy and clarity. However, the authors stressed that such tools often struggle with creative assignments, where nuanced language use and cultural sensitivity are essential.

While AI tools offer significant benefits, their limitations remain a topic of discussion. Warschauer and Grimes (2007) argued that technology should not be seen as a replacement for human interaction in language learning. They pointed out that AI lacks the depth to fully understand idiomatic expressions, cultural nuances, and emotional tones, which are critical for language mastery. These limitations suggest



that AI should be used as a supplement rather than a substitute for traditional teaching methods.

Additionally, Chapelle (2019) discussed the importance of incorporating AI into the broader pedagogical framework to maximize its potential. She argued that while AI tools provide efficiency and personalized learning, their success depends on the ability of learners and educators to critically engage with the feedback provided.

The literature on AI in language learning highlights both its transformative potential and its limitations. Researchers like Holec (1981) and Kumar and D'Silva (2020) have emphasized the role of AI in fostering autonomy, while others, such as Warschauer and Grimes (2007), have highlighted the challenges of over-reliance on technology. Studies on tools like Grammarly and Turnitin demonstrate their effectiveness in assignment checking but also underscore the need for human oversight and contextual understanding.

This review shows the importance of a balanced approach to integrating AI in language education. By addressing its limitations and using it as a supplement to traditional methods, AI can empower learners to achieve greater autonomy while ensuring comprehensive language development. The findings from this review will guide the subsequent sections of this study in exploring how AI tools can be effectively utilized in autonomous language learning and assignment evaluation.

### 3. Methods and Materials

This study employs a mixed-methods approach to explore the role of artificial intelligence (AI) in fostering autonomous language learning and streamlining assignment checking. By combining qualitative and quantitative data collection methods, the research provides comprehensive insights into the impact of AI on language education. The study was conducted in two phases: in-depth interviews and a survey.

#### 3.1 Interviews

The first phase involved conducting three semi-structured interviews with educators and language experts who regularly use AI tools in their teaching or learning environments. These interviews aimed to capture qualitative data on the benefits and challenges of AI in language education. Each interview lasted approximately 15–20 minutes, allowing participants to elaborate on their experiences and insights. The participants included:

Educator 1: A university language instructor specializing in autonomous learning methods and AI integration in language education.

Educator 2: A private language tutor with expertise in guiding learners through tools like Duolingo, Grammarly, and ChatGPT to enhance language skills.

Expert 3: An educational technologist focused on developing AI-driven solutions for assignment checking and personalized feedback systems.

The interviews focused on themes such as the effectiveness of AI tools in promoting learner autonomy, the limitations of these tools in contextual understanding, and strategies for integrating AI with traditional teaching methods. The responses were transcribed and analyzed thematically to identify patterns and actionable insights.

### 3.2 Survey

Building on the insights from the interviews, a survey was designed to gather quantitative data on learners' experiences with AI tools in language learning. The survey, created using Google Forms, consisted of 10 multiple-choice and Likert-scale questions, alongside open-ended responses to capture diverse perspectives. Key questions included:

-How often do you use AI tools (e.g., Grammarly, Duolingo, ChatGPT) in your language learning?

-What aspects of language learning (e.g., grammar, vocabulary, writing) do AI tools help you improve the most?

-How effective do you find AI-powered tools for checking assignments?

-Do AI tools encourage you to take more responsibility for your learning?

-What challenges do you face while using AI tools (e.g., contextual misunderstandings, over-reliance)?

-How satisfied are you with the feedback provided by AI tools compared to human instructors?

The survey targeted two primary groups:

University Students: Language learners from Ferghana State University, representing a diverse range of proficiency levels.

Independent Learners: Individuals studying languages autonomously using AI tools, providing insights into self-directed learning experiences.

Participation was voluntary and anonymous to ensure honest responses and minimize bias. A total of 15 participants completed the survey, with demographic data such as age, proficiency level, and frequency of AI tool usage collected to contextualize the results.

By integrating qualitative insights from interviews and quantitative data from the survey, this study offers a nuanced understanding of AI's role in language education, its benefits, and its limitations. The findings serve as a foundation for recommendations on how AI tools can be effectively utilized to promote learner autonomy and improve assignment evaluation processes.

### 4. Results and discussions

#### 4.1. Interview results

The interviews conducted with three educators and experts provided diverse insights into how AI tools influence autonomous language learning and assignment checking.

1) The instructor highlighted that AI tools like Grammarly and ChatGPT significantly enhance learner autonomy by providing immediate feedback and personalized suggestions. They emphasized that these tools help students recognize and correct grammatical errors, improving overall writing skills. However, they also expressed concerns about over-reliance on AI, which may limit students' ability to develop critical thinking and self-editing skills. The instructor suggested combining AI use with traditional teaching methods to maintain a balance between automation and human input.

2) The tutor shared that AI tools are invaluable for independent learners who lack access to regular teacher feedback. They mentioned that platforms like Duolingo and ChatGPT are particularly effective for vocabulary building and conversational practice. However, the tutor noted that AI often struggles with nuanced language aspects, such as cultural expressions or idiomatic phrases, which require additional human guidance. The tutor recommended scaffolding techniques, such as pairing AI feedback with contextual explanations, to enhance learner understanding.

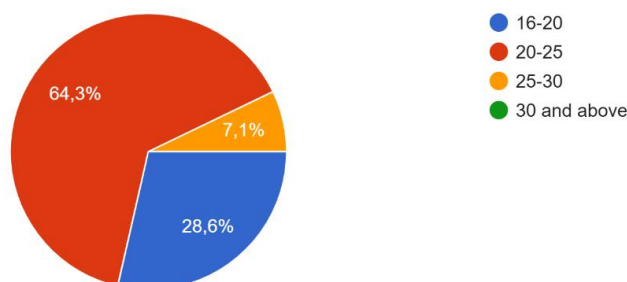
3) The technologist focused on the role of AI in assignment checking, particularly tools like Turnitin and Grammarly. They explained that these tools streamline the evaluation process, offering detailed insights into grammar, plagiarism, and stylistic issues. However, they pointed out that AI lacks the ability to evaluate creativity or context-sensitive assignments, which can lead to incomplete feedback. The technologist emphasized the importance of integrating AI as a complementary tool rather than a standalone solution for assignment evaluation.

#### 4.2. Survey Results

Figure number 1.

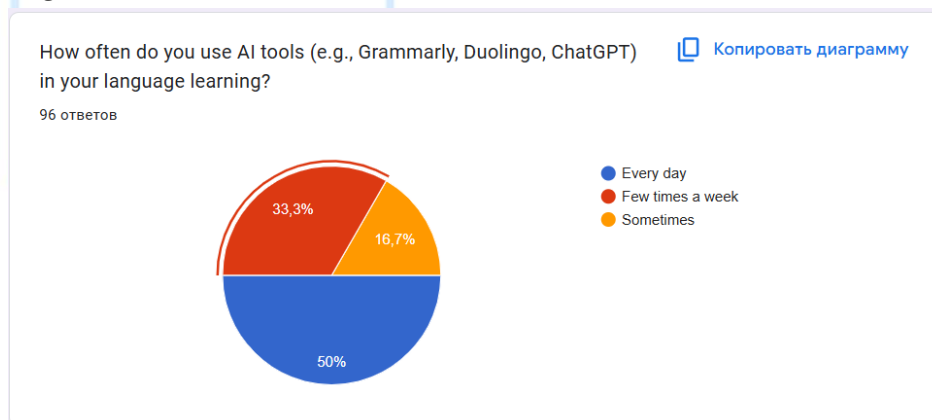
Which age group do you belong to?

14 ответов



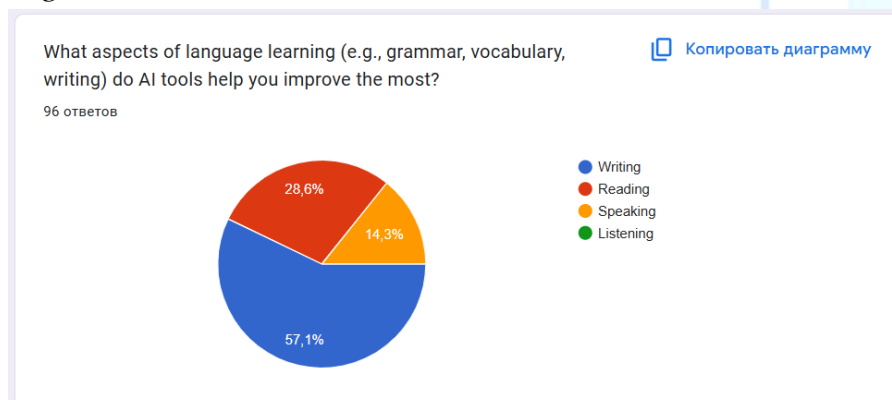
The first pie chart shows the age distribution of respondents. The majority (**64.3%**) fall into the **20–25 age group**, indicating a focus on young adult learners. A smaller proportion (**28.6%**) represents the **16–20 age group**, while **only 7.1%** are **over 25-30**. This demographic reflects a youthful audience that is likely familiar with technology and AI tools.

Figure number 2.



The second chart explores how often respondents use AI tools for language learning. The majority (**50%**) reported using AI tools daily, while **33,3%** use them a few times a week. A small group (**16.7%**) uses AI tools occasionally. These findings suggest a high level of engagement with AI among language learners.

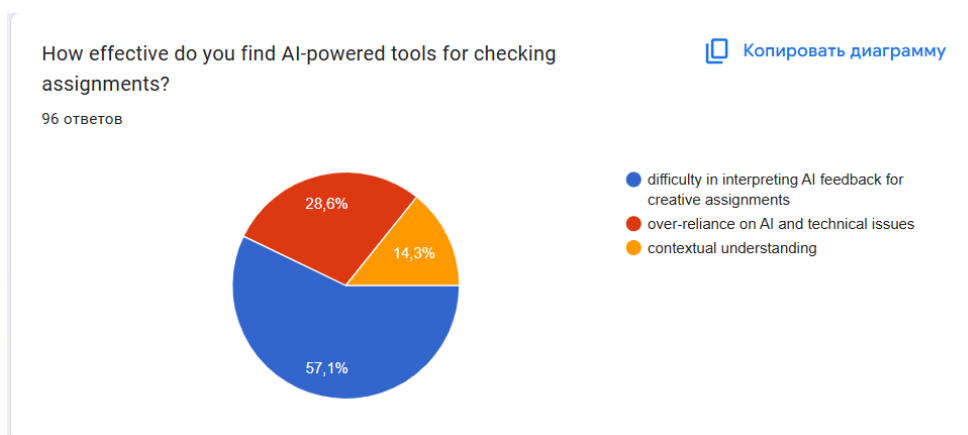
Figure number 3.



Respondents were asked which language skills AI tools help them improve the most. Writing skills topped the list (**57.1%**), followed by grammar improvement (**28.6%**) and vocabulary enhancement (**14.3%**). This highlights AI's effectiveness in areas requiring detailed and structured feedback.

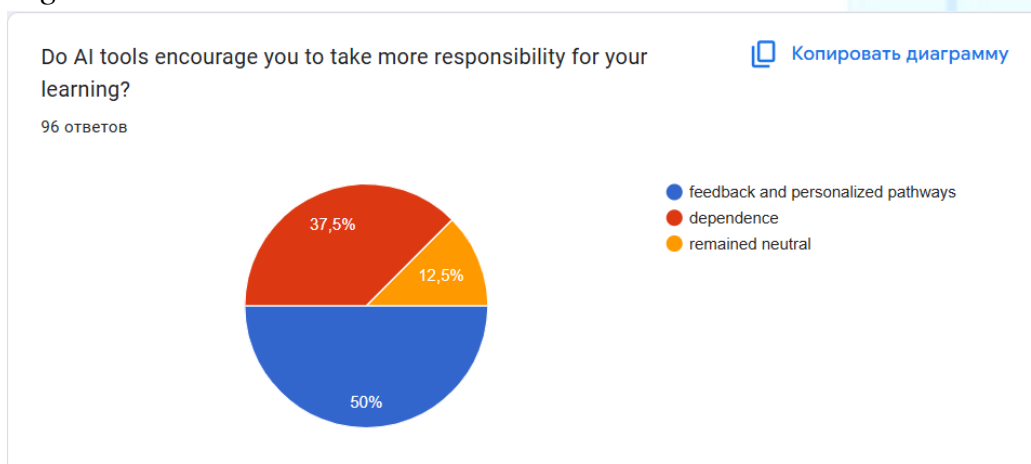
Figure number 4.





The fourth chart illustrates challenges faced by respondents while using AI tools. The most common issue (**57.1%**) was the difficulty in interpreting AI feedback for creative assignments. Other challenges included over-reliance on AI (**28.6%**) and technical issues (**14.3%**). These results underline the need for improved contextual understanding in AI tools.

Figure number 5.



When asked about AI's impact on learning autonomy, a significant majority (**50%**) agreed that AI tools encourage independent learning by offering instant feedback and personalized pathways. However, **37.5%** felt that these tools could lead to dependence, and **12.5%** remained neutral.

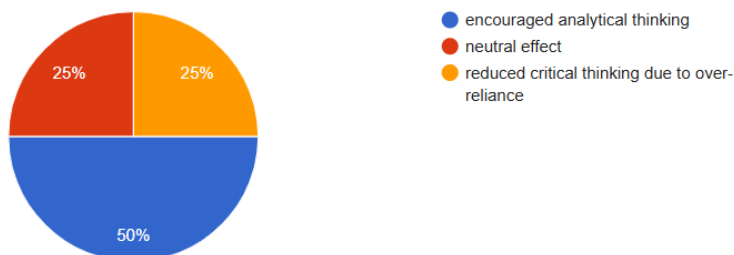
Figure number 6.



What challenges do you face while using AI tools (e.g., contextual misunderstandings, over-reliance)?

96 ответов

Копировать диаграмму



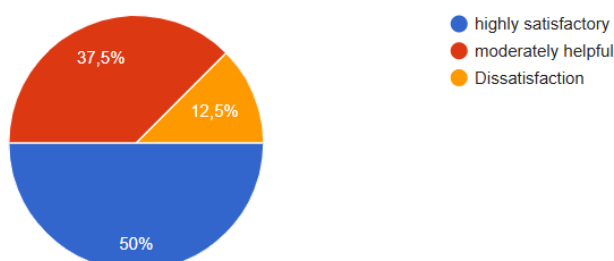
The influence of AI tools on critical thinking was another area of focus. While **50%** of respondents felt that AI encouraged analytical thinking, **25%** reported a neutral effect, and **25%** expressed concerns about reduced critical thinking due to over-reliance on AI.

*Figure number 7.*

How satisfied are you with the feedback provided by AI tools compared to human instructors?

96 ответов

Копировать диаграмму



Respondents were asked how satisfied they were with the feedback provided by AI tools. Most (**50%**) rated it as highly satisfactory, while **37,5%** found it moderately helpful. A small portion (**12,5%**) indicated dissatisfaction, citing limitations in AI's ability to address context-sensitive errors.

## 5. Discussion

The results from both interviews and surveys demonstrate that AI tools significantly contribute to fostering autonomous language learning and improving assignment checking processes. Most respondents reported positive experiences, highlighting benefits such as personalized feedback, real-time correction, and enhanced writing and grammar skills. However, challenges such as over-reliance, technical issues, and AI's limitations in understanding cultural or contextual nuances were also evident.

The interview revealed the need for a balanced integration of AI into language education. Educators emphasized that while tools like Grammarly and Duolingo support independent learning, they cannot replace the critical thinking and contextual understanding developed through traditional methods. For instance, AI struggles with creative assignments and idiomatic expressions, areas where human guidance remains essential. Educators recommended using AI as a supplement, enabling learners to benefit from its precision without losing opportunities for deeper engagement.

Survey results revealed that AI tools are particularly effective in improving technical language skills, with grammar, writing, and vocabulary being the most impacted areas. However, their influence on critical thinking and creativity remains limited. Some respondents expressed concerns about over-dependence on AI, which could hinder the development of self-correction and analytical skills.

These findings highlight the transformative potential of AI tools while pointing to areas for improvement. To maximize their effectiveness, AI tools should evolve to offer more nuanced feedback that encourages creativity and critical thinking. Combining AI with traditional teaching methods ensures a comprehensive approach to language learning, leveraging the strengths of both. By addressing existing limitations, AI can continue to revolutionize education, empowering learners with greater autonomy, efficiency, and skill development in their studies.

## 6. Conclusion

This study highlights the transformative potential of artificial intelligence (AI) in fostering autonomous language learning and streamlining assignment evaluation. AI tools such as Grammarly, ChatGPT, and Duolingo empower learners with personalized feedback, adaptive pathways, and real-time corrections, enhancing their language skills and promoting independent learning. The findings indicate that while AI excels in improving technical aspects like grammar, writing, and vocabulary, its limitations in addressing contextual understanding, creativity, and cultural nuances underscore the importance of human involvement in the learning process.

The study emphasizes that a balanced approach—integrating AI tools with traditional teaching methods—ensures comprehensive language development. By combining the precision and efficiency of AI with the depth and contextual sensitivity provided by educators, learners can achieve both autonomy and critical engagement with language. Addressing challenges like over-reliance on AI and refining its capabilities in nuanced feedback will further enhance its educational impact.

AI tools represent a significant step forward in modern language education, offering learners the flexibility and resources to succeed. Future advancements in AI's contextual understanding and its integration with innovative pedagogical approaches

can ensure its sustained relevance and transformative role in shaping the language learning experience for generations to come.

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