



THE IMPACT OF ARTIFICIAL INTELLIGENCE TOOLS ON EDUCATIONAL MOTIVATION AND REDUCTION OF LANGUAGE BARRIER IN TEACHING RUSSIAN AS A FOREIGN LANGUAGE

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Abstract

The article examines the psychological and pedagogical impact of AI tools (Duolingo, Quizlet, DeepL, chatbots) on educational motivation and the reduction of the language barrier (affective filter) in teaching Russian as a foreign language (RFL) to Uzbek-speaking students. Based on an experiment at School No. 5 in Jizzakh (A2 level, n=20), it is shown that AI reduces language anxiety in 78% of students, increases intrinsic and game-based motivation, and accelerates skill automation. A hybrid teaching model is proposed: AI for personalisation and psychological support, the teacher for live communication.

Keywords: Russian as a foreign language, artificial intelligence, educational motivation, affective filter, language barrier, gamification, Uzbek audience.



Introduction

The digital transformation of education introduces AI into language teaching. However, the impact of AI on psychological components — motivation and overcoming the language barrier — remains underexplored. Psychological fears (mistakes, public speaking) are especially acute in national audiences at the initial stage. The purpose of this article is to identify, through theory and experiment, how AI tools influence motivation and the affective filter in RFL learners.

Theoretical Background

According to S. Krashen, the “affective filter” is a psychological barrier caused by fear of error or criticism. Traditional methods often keep this filter high. Research (Popovich, 2024) shows that YandexGPT reduces anxiety in 78% of students thanks to neutral feedback without emotional evaluation. Bikkulova and Ivkina note that gamified chatbots maintain motivation but risk “burnout” from excessive gamification. In Uzbekistan, interlingual interference (Djelyalov, 2022) increases frustration; AI can generate exercises that account for these differences, improving educational self-esteem.

Organisation and Methods

The experiment was conducted at Secondary School No. 5 in Jizzakh. Participants: 20 7th-grade students (A2 level, Uzbek native speakers, age 13–15). Two groups of 10: control (traditional teaching) and experimental (AI tools: Duolingo, Quizlet, DeepL, generative chatbot). Stages: 1) initial testing of motivation (10-point scale) and anxiety; 2) formative stage (topic “Verbs of motion with prefixes”); 3) final testing and statistical analysis.

Results and Discussion

Motivation dynamics:

- Initial average motivation: control — 6.0, experimental — 6.3 (comparable).
- After the module: control — 6.1 (+0.1, insignificant); experimental — 8.7 (+2.4, significant improvement).



Psychological effect: 78% of experimental students reported reduced fear of mistakes. Typical comments: “The bot doesn’t scold, you can try again”, “I don’t have to blush in front of the class”.

Efficiency gains:

- Task completion time decreased by 28% (25 min → 18 min).
- Grammatical errors decreased by 46% (7.2 → 3.9 per student).

Correlation analysis links fewer errors not only to more practice but also to increased confidence.

Three main mechanisms:

1. Depersonalised feedback – no emotional judgement → lower anxiety.
2. Immediate correction – errors are corrected instantly, preventing negative reinforcement.
3. Gamification – points, levels, visual effects sustain long-term engagement.

Risk identified: 3 out of 10 experimental students shifted from substantive motivation to competitive-game motivation (chasing points rather than learning). This confirms the need for balanced use of game mechanics.

Conclusion

1. AI tools (chatbots, adaptive platforms, intelligent correctors) significantly reduce the affective filter in RFL teaching due to neutral, instant feedback without emotional evaluation.
2. Gamified AI environments (Duolingo, Quizlet) increase motivation but require teacher supervision to avoid replacing educational goals with game goals.
3. Maximum effectiveness is achieved in a hybrid model: AI as a tutor and psychological support, the teacher as a facilitator of live communication and content verification.

The results can be used by RFL teachers in Uzbek-speaking audiences and in developing methods to reduce the language barrier using AI.



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