

THE ROLE OF ARTIFICIAL INTELLIGENCE-BASED ADAPTIVE TASKS IN DEVELOPING STUDENTS' COMMUNICATIVE COMPETENCE

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<https://doi.org/10.5281/zenodo.22275173>

Abstract

The rapid development of artificial intelligence (AI) is transforming contemporary education by creating new opportunities for personalized and adaptive learning. One of the promising applications of AI in language education is the use of AI-based adaptive tasks that adjust their content, difficulty, and feedback according to individual learners' needs and performance. This article examines the role of AI-based adaptive tasks in developing students' communicative competence. Particular attention is paid to the ways in which adaptive technologies can support students' speaking, listening, reading, writing, interaction, and pragmatic abilities. The article argues that AI-based adaptive tasks can create more individualized, interactive, and learner-centered educational environments. They can provide immediate feedback, increase opportunities for communication practice, reduce learners' anxiety, and encourage autonomous learning. At the same time, effective implementation requires appropriate pedagogical design, teacher supervision, ethical considerations, and careful attention to the limitations of artificial intelligence. The article concludes that AI-based adaptive tasks should not replace teachers but should function as a complementary pedagogical tool for strengthening students' communicative competence.

Keywords: artificial intelligence, adaptive learning, adaptive tasks, communicative competence, language education, personalized learning, digital education, feedback.

Introduction

The integration of digital technologies into education has significantly changed the ways in which teaching and learning are organized. Among the technologies currently attracting considerable attention, artificial intelligence has particular potential because it can analyze learner performance, identify individual difficulties, generate learning materials, and provide personalized feedback. In language education, these capabilities can contribute to the development of students' communicative competence by creating learning activities that respond to learners' specific linguistic and communicative needs.

Communicative competence is a fundamental objective of modern language education. It involves much more than knowledge of grammar and vocabulary. A communicatively competent learner should be able to use language appropriately and effectively in different social, academic, and professional situations. This includes linguistic knowledge as well as discourse, sociolinguistic, pragmatic, and strategic abilities.

Traditional classroom instruction may not always provide sufficient opportunities for every student to practice communication. Large groups, differences in proficiency levels, limited lesson time, and students' individual learning preferences can make it difficult for teachers to provide personalized activities and immediate feedback. AI-based adaptive tasks offer a potential solution to some of these challenges. By dynamically adjusting tasks to learners' performance, such systems can provide differentiated practice and create additional opportunities for meaningful communication.

The purpose of this article is to examine the role of AI-based adaptive tasks in developing students' communicative competence and to identify the pedagogical benefits and challenges associated with their implementation.

The concept of communicative competence has become one of the central concepts in modern language teaching. It emphasizes the learner's ability to use language effectively rather than simply memorize linguistic rules.

Communicative competence can be viewed as a multidimensional construct that includes several interconnected components. Linguistic competence refers to knowledge of vocabulary, grammar, pronunciation, and other language structures. Sociolinguistic competence involves the ability to adapt language use to different social contexts and relationships. Discourse competence concerns the ability to organize ideas coherently in spoken and written communication. Pragmatic competence enables learners to understand and produce language according to communicative intentions and contextual requirements. Strategic competence involves the use of communication strategies when learners encounter difficulties during interaction.

Therefore, developing communicative competence requires learners to participate in meaningful language activities rather than merely complete mechanical exercises. Students need opportunities to interpret messages, express opinions, negotiate meaning, ask and answer questions, solve problems, and communicate appropriately in different contexts.

AI-Based Adaptive Learning and Tasks

Adaptive learning refers to an educational approach in which learning materials and activities are modified according to the individual learner's knowledge, performance, progress, and needs. Artificial intelligence makes adaptive learning more sophisticated by enabling systems to process learner data and make real-time decisions about subsequent learning activities.

An AI-based adaptive task can change its difficulty, topic, vocabulary, instructions, or type of feedback depending on the learner's responses. For example, if a student repeatedly makes errors when using a particular grammatical structure, the system may provide additional exercises targeting that structure. If the learner demonstrates sufficient mastery, the system can automatically introduce more complex tasks.

In communicative language learning, adaptive tasks can take various forms:

- AI-supported conversational activities;
- adaptive speaking tasks;
- personalized reading comprehension activities;
- interactive listening exercises;
- contextual vocabulary tasks;
- adaptive writing assignments;
- role-playing and simulation activities;
- problem-solving tasks;
- dialogue-based activities;
- AI-generated discussion questions.

The key characteristic of these activities is their ability to respond to the learner rather than providing exactly the same task to every student.

The Role of AI-Based Adaptive Tasks in Developing Communicative Competence

Individualization of Learning

One of the most important advantages of AI-based adaptive tasks is personalization. Students in the same classroom often have different levels of language proficiency, learning speeds, interests, and difficulties. A single standardized task may therefore be too easy for some learners and too difficult for others.

Adaptive technologies can address this problem by adjusting tasks according to individual performance. A beginner learner may receive simple vocabulary and sentence-construction activities, while an advanced learner can be presented with complex discussions, authentic texts, and problem-solving situations.

This individualized approach allows students to work at an appropriate level of challenge. As a result, learners can gradually develop their communicative abilities without being consistently overwhelmed or insufficiently challenged.

Speaking competence requires regular practice, but classroom conditions often limit the amount of time each student can spend speaking. AI-based conversational systems can provide additional opportunities for oral interaction.

For example, an adaptive AI task can simulate a conversation between a student and a virtual interlocutor. The system can present situations such as ordering food, participating in a job interview, discussing an academic topic, asking for information, or solving a problem. Depending on the learner's responses, the AI can continue the conversation and increase or decrease its complexity.

areas that require additional attention.

This creates a learning environment in which students become more responsible for their own progress. Nevertheless, learner autonomy should be supported rather than assumed; teachers remain important in helping students establish realistic goals and evaluate their progress. The presence of artificial intelligence alone does not guarantee successful language learning. The effectiveness of AI-based adaptive tasks depends primarily on their pedagogical design.

First, tasks should have clearly defined communicative objectives. Technology should serve educational purposes rather than become an end in itself.

Second, adaptive tasks should be connected with authentic communication. Activities should encourage learners to use language to achieve meaningful purposes, such as exchanging information, expressing opinions, negotiating, persuading, or solving problems.

Third, teachers should remain actively involved. AI can analyze responses and generate activities, but teachers can provide emotional support, contextual knowledge, pedagogical judgment, and human interaction that technology cannot fully reproduce.

Fourth, students should be taught how to use AI critically. They should understand that AI-generated feedback may sometimes be inaccurate or incomplete and should learn to evaluate suggestions rather than accept them automatically. Despite their potential benefits, AI-based adaptive tasks have several limitations.

One challenge is the accuracy of AI-generated feedback. Artificial intelligence may misunderstand a learner's communicative intention or incorrectly evaluate an unconventional but acceptable language form.

Another issue is the risk of excessive dependence on technology. If students interact primarily with AI systems, they may have fewer opportunities for authentic human

communication. Language learning ultimately requires interaction with real people and exposure to genuine social contexts.

Data privacy is another important concern. Adaptive systems often collect information about learner performance and behavior. Educational institutions should therefore ensure that student data is handled responsibly and securely.

There is also a digital inequality problem. Not all learners have equal access to reliable devices, high-speed internet, or advanced AI tools. Consequently, institutions should consider accessibility when introducing AI-based educational technologies.

Finally, teachers need appropriate digital and pedagogical competencies to integrate AI effectively. Professional development should therefore accompany the implementation of AI-supported learning systems.

Conclusion

AI-based adaptive tasks represent a promising direction in contemporary language education. Their ability to personalize learning, provide immediate feedback, adjust task difficulty, and create interactive communication opportunities can make an important contribution to the development of students' communicative competence.

The greatest value of adaptive AI tasks lies not simply in automation but in their capacity to create individualized learning pathways. By responding to learners' performance and needs, these tasks can provide additional opportunities for speaking, listening, reading, writing, vocabulary development, and pragmatic language use.

However, artificial intelligence should be considered a pedagogical tool rather than a replacement for teachers or human communication. The most effective model is likely to be a balanced combination of AI-supported adaptive practice and teacher-guided, collaborative, authentic interaction.

Thus, the successful integration of AI-based adaptive tasks requires a human-centered approach in which technology, teachers, and learners work together. When appropriately designed and implemented, adaptive AI technologies can contribute significantly to creating more personalized, interactive, and effective environments for developing students' communicative competence.

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