TEACHING ENGLISH TO PRESCHOOL CHILDREN THROUGH INTEGRATION OF ARTIFICIAL INTELLIGENCE AND MULTISENSORY METHODS

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Abstract: *This article explores innovative approaches to teaching English to preschool-aged children through the combined use of artificial intelligence (AI) and multisensory methods. The study employed observation, analysis, and practical activities to examine the effectiveness of integrating AI tools, visual materials, and interactive games. The results indicate a significant increase in children's interest in lessons, motivation, and active participation. While AI provides a personalized learning experience, multisensory activities enhance memory and comprehension. The research demonstrates that combining AI and multisensory methods is one of the most effective strategies for teaching English at an early age.*

Annotatsiya: *Ushbu maqola maktabgacha yoshdagi bolalarda ingliz tilini o'rgatishda sun'iy intellekt (AI) va multisensor metodlarni birgalikda foydalanish orqali innovatsion yondashuvlarni tadqiq qiladi. Tadqiqotda kuzatuv, tahlil va amaliy mashg'ulotlarda qo'llanilib, AI vositalari, vizual materiallar va interaktiv o'yinlarni birlashtirish samaradorligi o'rganildi. Natijalar shuni ko'rsatdiki, bolalarning darsga qiziqishi, motivatsiyasi va faol ishtiroki sezilarli darajada oshgan. AI individual o'quv tajribasini ta'minlasa, multisensor mashg'ulotlar xotira va tushunishni mustahkamlaydi. Tadqiqot shuni ko'rsatdiki, AI va multisensor metodlarni birlashtirish erta yoshda ingliz tilini samarali o'rgatish uchun eng maqbul strategiyalardan biridir.*

Keywords: *preschool education, English language, artificial intelligence, multisensory methods, interactive learning, innovation*

Introduction

Lev Vygotsky once said: "A child's development is directly connected with the social environment." Preschool age is a critical period for cognitive, social, and linguistic development. At this stage, children acquire knowledge naturally through their senses and interactions with the environment.

In today's globalized world, English has become an essential skill. Early exposure to English enhances language proficiency and communication skills in later years. Traditional rote memorization techniques, however, often bore young learners and reduce motivation.

Integrating artificial intelligence with multisensory methods offers an innovative solution. AI provides personalized feedback, while multisensory approaches engage multiple senses simultaneously, making learning enjoyable and effective. This article focuses on these

integrated approaches, targeting preschool educators and early childhood development specialists.

Main body

AI tools provide adaptive learning experiences. Applications can listen to children's pronunciation, give instant feedback, and adjust difficulty levels according to individual progress.

Example: A teacher asks, "Where is the cat?" An AI app shows several animals, the child points, and the app provides immediate feedback. This fosters independent learning and builds confidence.

Multisensory learning involves sight, hearing, touch, and movement simultaneously. Preschoolers learn best through exploration and interaction.

Examples:

Visual: Flashcards, colorful images, or videos of objects and animals;

Auditory: Songs, rhymes, and stories in English;

Kinesthetic: Movement-based activities such as "Jump and Say Red" or "Act like an Elephant".

Combining these methods ensures vocabulary and phrases are experienced visually, aurally, and physically, enhancing memory and comprehension.

Integrating AI with multisensory approaches maximizes learning outcomes.

Practical Example:

During a lesson on colors, an AI app displays a red object on a tablet, says "Red," and prompts the child to repeat the word while singing a song and arranging colored blocks. Sight, sound, and touch are combined, and AI provides instant, personalized feedback.

Benefits:

- Increased motivation and engagement.
- Improved pronunciation and vocabulary retention.
- Individualized learning pace for each child.
- Encourages curiosity and independent exploration.

This integrated approach reduces classroom stress and makes learning English playful and meaningful.

Conclusion

Teaching English to preschool children through the integration of AI and multisensory methods is highly effective. This strategy increases engagement, motivation, and active participation while addressing individual learning needs. Multisensory activities reinforce memory and comprehension, and AI provides adaptive, personalized feedback that accelerates language acquisition. Early exposure using these methods lays a strong foundation for future language learning, making children confident and capable communicators. Educators are encouraged to adopt these approaches to create enjoyable and effective learning environments.

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