

## Current Issues of Educational Tools Based on Artificial Intelligence and Future Directions

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### **Abstract**

This study analyzed contemporary artificial intelligence (AI)-related educational research in order to have a better grasp of the concerns and obstacles currently encountered in classroom settings. Specifically, works on AI-based chatbots and writing tools, such as machine translators and plagiarism checkers, were comprehensively evaluated. Approximately 50 publications from SSCI, SCOPUS, and KCI-indexed journals were chosen for analysis based on keyword searches and abstract reviews. To analyze the selected studies, the following categorization criteria were applied: target topics, publication years, types of AI chat-bots and tools-related technologies, study methodologies, and findings. The majority of study participants ranged from elementary school children to college students. The study of the gathered research reveals a sharp growth in the number of chat-bot and machine translation experiments employing various types of technology since 2017. The most popular types of AI-based chatbots and machine translators were Dialogue Flow and Google Translator. Survey, case, review, and quasi-experimental studies are distinct types of research approaches. The research suggests that AI-chatbot and machine translation studies have typically beneficial impacts on the affective characteristics of young learners, such as their level of immersion and their interests, but not on their cognitive characteristics. This study offers pedagogical implications as well as ideas for future studies and researchers on how to make effective use of technology associated with artificial intelligence in education.

**Keywords:** Artificial Intelligence, chat-bots, writing tools, English Education