

## Qualitative Analysis of User Experiences and Needs for Educational Chatbots in Higher Education

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**Abstract :** In an era where technology increasingly intersects with education, the potential of chatbots and ChatGPT agents in enhancing student learning experiences in higher education is both significant and timely. This study explores the integration of these AI-driven tools in educational settings, emphasizing their design and functionality to meet the specific needs of students. Recognizing the gap in literature concerning student-centered AI applications in education, this research offers valuable insights into the role and efficacy of chatbots and ChatGPT agents as educational tools. Employing qualitative research methodologies, the study involved conducting semi-structured interviews with university students. These interviews were designed to gather in-depth insights into the students' experiences and expectations regarding the use of AI in learning environments. The High-Performance Cycle Model, renowned for its focus on goal setting and motivation, served as the theoretical framework guiding the analysis. This model helped in systematically categorizing and interpreting the data, revealing the nuanced perceptions and preferences of students regarding AI tools in education. The major findings of the study indicate a strong preference among students for chatbots and ChatGPT agents that offer personalized interaction, adaptive learning support, and regular, constructive feedback. These features were deemed essential for enhancing student engagement, motivation, and overall learning outcomes. Furthermore, the study revealed that students perceive these AI tools not just as passive sources of information but as active facilitators in the learning process, capable of adapting to individual learning styles and needs. In conclusion, this study underscores the transformative potential of chatbots and ChatGPT agents in higher education. It highlights the need for these AI tools to be designed with a student-centered approach, ensuring their alignment with educational objectives and student preferences. The findings contribute to the evolving discourse on AI in education, suggesting a paradigm shift towards more interactive, responsive, and personalized learning experiences. This research not only informs educators and technologists about the desirable features of educational chatbots but also opens avenues for future studies to explore the long-term impact of AI integration in academic curricula.

**Keywords :** chatbot design in education, high-performance cycle model application, qualitative research in AI, student-centered learning technologies

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