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## ANALYSIS OF THE CHALLENGES AND STRATEGIES FOR IMPLEMENTING INTERACTIVE TECHNOLOGIES IN HIGHER EDUCATION

Interactive technology, as an important component of information technology, encompasses various forms such as virtual reality (VR), augmented reality (AR), interactive whiteboards, and online collaboration platforms. Its application in higher education not only enhances interactivity and engagement in teaching but also offers new possibilities for personalized learning and distance education [1]. However, the effective implementation of interactive technology requires overcoming multiple challenges to ensure its practical benefits in teaching [2].

In higher education, the implementation of interactive technology faces multiple challenges. Firstly, the lack of technological infrastructure significantly limits the scope and effectiveness of interactive technology, especially in institutions located in remote areas. The absence of high-performance computing devices and a stable network environment makes it difficult for many interactive technologies to operate smoothly [3]. Secondly, the limited capacity of faculty is also a major challenge. Many teachers lack the knowledge and skills related to interactive technology, and their acceptance and adaptability to new technologies vary, further

affecting its practical application in teaching [4].

The issue of students' adaptability to interactive technology also cannot be overlooked. Some students find it challenging to adapt due to unfamiliarity with new technology, which affects their learning outcomes [5]. The varying needs for interactive technology across different disciplines require flexible adjustments to meet specific teaching demands. Lastly, ethical and privacy concerns pose deeper challenges for technology application. Interactive technology involves handling a large amount of student data, raising questions about how to ensure data security and privacy, and avoid ethical controversies, such as conduct in virtual environments—an urgent issue that needs addressing [6-7]. Therefore, enhancing technical support, strengthening teacher training, addressing student adaptability, and establishing comprehensive policies are key to promoting the effective implementation of interactive technology.

To promote the effective application of interactive technology in higher education, enhancing technological infrastructure is crucial. Universities should increase investment in hardware and network environments, and establish technical support teams to ensure system stability and timely troubleshooting [8]. Strengthening teacher training is also an important way to address the shortcomings in technology application. Higher education institutions can improve teachers' technical literacy and application skills through systematic training programs, while encouraging experience sharing and collaboration among teachers to foster innovation in teaching methods [9].

Optimizing instructional design can better leverage the advantages of interactive technology. Instructional design should be student-centered, integrating the characteristics of the technology with learning objectives to create targeted learning activities. For example, using virtual reality to enhance students' practical skills, or leveraging online collaboration platforms to develop teamwork and communication abilities [10]. On this basis, to address data privacy and ethical concerns, universities should establish comprehensive policies and guidelines to protect student data security and define behavior standards within virtual environments, thereby maintaining a positive teaching order [11]. These combined strategies will facilitate the smooth implementation and deeper development of interactive technology in higher education.

The application prospects of interactive technology in higher education are promising, yet numerous challenges remain in its implementation. By strengthening technological infrastructure, providing systematic teacher training, optimizing student-centered instructional design, and establishing comprehensive policies and regulations, higher education institutions can effectively address these challenges and fully unlock the potential of interactive technology, thereby enhancing teaching quality and student learning experiences. Looking ahead, with continuous technological advancement and evolving educational philosophies, interactive technology will play an increasingly important role in higher education, driving profound changes in educational models.

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## CHARACTERISTICS AND ESSENCE OF EDUCATIONAL LEADERSHIP CONCEPT: THEORETICAL DISCUSSION

Educational leadership is a core theme in educational management, which is related to the realization of educational organization goals and the improvement of its operating efficiency. Its essence is a kind of influence, which achieves the common goals of educational institutions through the collaboration of organizational members.