

КЫТАЙ ТИЛИН ЧЕТ ТИЛ КАТАРЫ ОКУТУУДА ИНТЕРАКТИВДҮҮЛҮКТҮ ЖОГОРУЛАТУУ
ҮЧҮН МУЛЬТИМЕДИЯЛЫК ТЕХНОЛОГИЯЛАРДЫ КОЛДОНУУ

ИСПОЛЬЗОВАНИЕ МУЛЬТИМЕДИЙНЫХ ТЕХНОЛОГИЙ ДЛЯ ПОВЫШЕНИЯ
ИНТЕРАКТИВНОСТИ В ПРЕПОДАВАНИИ КИТАЙСКОГО ЯЗЫКА
КАК ИНОСТРАННОГО

**AN EMPIRICAL STUDY ON ENHANCING THE INTERACTIVITY OF TEACHING
CHINESE TO FOREIGNERS WITH MULTIMEDIA TECHNOLOGY**

Кыскача мнөздөмө: Бул изилдөө мультимедиялык технологиялар кытай тилин чет тили катары окутууда интерактивдүүлүктү кантип жогорулатырын карайт. Интерактивдүү окуу материалдарын түзүү, онлайн платформаларды колдонуу жана мобилдик түзмөктөрдү интеграциялоо аркылуу биз окутууда мультимедиялык технологиянын натыйжалуулугун эмпирикалык түрдө далилдедик. Изилдөөнүн натыйжалары көрсөткөндөй, мультимедиялык технологиялар студенттердин жигердүүлүгүн кыйла жогорулатат, негизги ойлорду ачык көрсөтөт, окутуу методдорун байытат жана ошону менен жалпы окуу натыйжаларын жакшыртат. Мындан тышкары, изилдөө маданий алмашууну жана түшүнүүнү жеңилдетет. Бул изилдөө кытай тилин чет тили катары окутуунун жаңы интерактивдүү стратегияларын гана сунуштабастан, заманбап билим берүүдө мультимедиялык технологиялардын негизги ролун да баса белгилейт.

Аннотация: В данном исследовании рассматривается, как мультимедийные технологии могут повысить интерактивность при преподавании китайского языка как иностранного. Путем создания интерактивных учебных материалов, использования онлайн-платформ и интеграции мобильных устройств, мы эмпирически доказали эффективность мультимедийных технологий в обучении. Результаты исследования показывают, что мультимедийные технологии значительно повышают вовлеченность студентов, наглядно демонстрируют ключевые моменты, обогащают методы преподавания и, таким образом, улучшают общие результаты обучения. Кроме того, исследование способствует культурному обмену и взаимопониманию. Настоящее исследование не только предлагает новые интерактивные стратегии для преподавания китайского языка как иностранного, но и подчеркивает ключевую роль мультимедийных технологий в современном образовании.

Abstract: This study explores how the use of multimedia technology augments interactivity of the method for teaching Chinese to foreigners. By creating interactive teaching slides and using online platforms and mobile devices, we demonstrated the effectiveness of multimedia technology in teaching. The results revealed that multimedia technology significantly increases students' participation, physically demonstrates knowledge points, enriches teaching methods, and improves the teaching effect. The findings also indicate the role of multimedia technology in facilitating cultural communication and understanding. In conclusion, this study provides new interactive strategies for teaching Chinese as a foreign language and highlights the key role of multimedia technology in modern education.

Негизги сөздөр: мультимедиа технологиялары; кытай тилин чет тили катары окутуу; окутуунун интерактивдүүлүгү.

Ключевые слова: мультимедийные технологии; преподавание китайского языка как иностранного; интерактивность обучения.

Keywords: multimedia technology; teaching Chinese as a foreign language; teaching interactivity.

Introduction: Globalization has led to a surge in the demand for teaching Chinese as a foreign language. Traditional teaching methods are limited in interactivity and thus ineffective in meeting students' diversified needs. Rapidly developing multimedia technology has made teaching innovation possible, and its rich audio-visual effects and interactive functions are speculated to significantly improve the teaching effect. By empirically examining how multimedia technology effectively augments the interactivity of teaching Chinese to foreigners, this study delves into its role in igniting students' learning interest, improving their learning effect, and facilitating cultural exchange and understanding.

1. Strategies on using multimedia technology to enhance the interactivity of teaching Chinese as a foreign language

1.1 Creating Interactive Teaching Slides

Using multimedia technology to create interactive teaching slides is a promising strategy for enhancing interactivity of the method for teaching Chinese as a foreign language. Combining videos, audios, and animations for teaching produces a more vivid and realistic learning atmosphere for students. For example, while introducing Chinese characters for writing, animations can be used to show the sequence and construction framework of strokes and help pronounce the characters. This form of teaching will aid students in grasping the uniqueness of Chinese characters more clearly. Furthermore, to increase student participation, interactive question-and-answer sessions can be carefully organized in the teaching presentation. These questions can be based on the teaching slide content so that students can answer relevant questions immediately after watching the videos or animations and grasp the results of the answers through the real-time feedback system. The rapid interactive communication and feedback mechanism can arouse students' enthusiasm for learning and help them grasp what they have learned in detail and accurately. As each student is unique, a customized learning path can be created. Academic requirements and abilities of each student vary considerably. Hence, to meet the unique learning needs of different students, teachers can use multimedia technology and generate customized teaching materials. For beginners, more basic training can be planned and implemented, whereas students who already have a certain foundation can be provided more opportunities and additional exercises so that they can apply what they have learned. In this manner, the progression of each student based on their own level can be ensured, and teaching interactivity can be significantly improved ^[1].

1.2 Utilizing online platforms

Online platforms can also be used as an effective strategy for improving the interactivity of teaching Chinese as a foreign language. Real-time online communication is the key to achieving efficient interaction. Through chatting tools or forums, students and teachers can communicate and discuss at any time and any place. This immediate response can help overcome time and space constraints and arouse students' zeal for asking questions on their own initiative. Furthermore, teachers can respond quickly, and the discussion between teachers and students can help promote the exchange of ideas. Online collaborative learning further augments interactivity. Using online collaborative tools, students can collaborate and work together in groups to accomplish learning tasks. This collaboration mode can promote teamwork and allow students to learn from each other in an interactive manner. For example, collaborative editing tools available on the Internet allow students to edit the same file together and view others' changes and suggestions in real time. This flexible collaborative process can markedly stimulate students' interest in learning. Instant evaluation and feedback through online platforms is a key step in enhancing the interactivity of teaching and learning. Because of the online testing and evaluation system, teachers can quickly track students' progress in learning and offer targeted guidance. Based on instant interactive feedback received, students can adjust their learning strategies, as the feedback provides them better clarity of their own learning goals and enables them to more actively engage in studies.

1.3 Using mobile devices

Using mobile devices is also among the innovative strategies for augmenting the interactivity of teaching Chinese as a foreign language. As smartphones are becoming increasingly popular, a trend of developing teaching applications specifically for mobile devices has emerged. This strategy markedly enhances the interactivity and brings vitality to teaching Chinese to foreigners. Use of learning software can enable students to begin their learning at any time with the touch of a button, which considerably augments

the dynamic interaction and fun of learning. Some Chinese learning software in the market use voice recognition technology, thereby allowing students to practice Chinese with virtual characters in a simulated, real conversation environment, and instant interaction can help them considerably improve their speaking ability. Because of augmented reality and virtual reality technology, students can immerse themselves in a new learning atmosphere. These technologies can make students feel as if they are wandering around old alleys in Beijing and talking to the local residents. The highly realistic interactive mode can stimulate students' enthusiasm for learning and help them gain a deeper understanding of the Chinese language and culture. Using portable terminals, teachers can provide students with tailored teaching materials and interactive exercises according to academic abilities and preferences of individual students. After carefully checking students' academic progress, teachers can use advanced intelligent technology to design an exclusive learning plan for each student and send corresponding teaching resources and exercises in time through mobile teaching tools. The tailor-made teaching mode can cater to students' preferences and arouse their enthusiasm for learning through real-time interactive communication ^[2].

2. Analysis of the effect of multimedia technology on improving the interactivity of teaching Chinese as a foreign language

2.1 Increasing students' participation

Multimedia technology can significantly improve the interactivity of teaching method for Chinese as a foreign language in various ways. First, it can remarkably enhance students' enthusiasm for participation, mainly because the multimedia tools, such as videos, pictures, and audio, have made teaching more enjoyable and interesting. These multimedia resources exert strong visual and auditory effects, allowing teachers to vividly present the unique flavor and culture of the Chinese language, thus triggering students' enthusiasm for learning Chinese comprehensively. Students passionate about their learning are more willing to engage in classroom interactions, take the initiative to answer questions and solve problems, and actively communicate with teachers and classmates. Multimedia technology enables students to take online tests and obtain marks and comments immediately after they have delivered their academic tasks. Thus, they can instantly and more clearly assess their academic progress. They can also rapidly adjust their methods and maintain their enthusiasm and motivation for learning. According to relevant data, a combination of multimedia technologies has significantly boosted students' active participation in the classroom and frequency of asking questions, as well as enhanced the accuracy of answering questions. The time that students spend on self-study outside the classroom has increased, which, in turn, has enhanced students' willingness to invest additional time and energy in exploring and mastering the essence of Chinese language. These changes precisely reflect the substantial effect of multimedia technology on sharpening students' sense of participation, laying a solid foundation for augmenting the interactivity of teaching Chinese as a foreign language.

2.2 Enhancing teaching effect

The role played by multimedia technology in enhancing the effect of teaching Chinese to foreigners is pivotal and cannot be ignored. By presenting Chinese knowledge points through videos, animations, and other intuitive ways, multimedia technology assists students in understanding and mastering the Chinese language more easily. Animations simplify the complicated structure of Chinese characters and complex grammatical clauses, making them easily understandable, thereby rendering the learning process clearer and more interesting. Consequently, the learning effectiveness of students can be improved. Combining various teaching tools, such as images, text, and sound, makes teaching in classrooms more colorful. These tools enable teachers to employ richer and more diverse teaching methods and capture potential opportunities. Traditionally, teachers have been using chalk and books to teach; however, the integration of multimedia technology breaks the tradition. Using images, audio, and videos, teachers can create lively and engaging teaching materials to arouse students' passion for learning. Diversified teaching methods make the classroom atmosphere more enthusiastic and significantly affect students' concentration and memorization skills. The survey results revealed that the introduction of multimedia aids in the classroom has substantially improved students' academic performance and practical skills in Chinese language. In a study of foreign students learning Chinese, students taught with dynamic multimedia outshone those who were taught traditionally in four key skills: listening, speaking, reading, and writing ^[3].

2.3 Facilitating cultural exchange and understanding

In addition to enhancing teaching interactivity, the application of multimedia technology for teaching Chinese to foreigners can promote cultural exchange and understanding. Using the diversified means of multimedia, China's thousands of years of history and culture, rich and colorful folk traditions, and unique customs can be presented visually, thereby providing students an opportunity to know about China directly. Teaching videos can help students understand the way in which Chinese people celebrate traditional Chinese

festivals. Through virtual reality, students can feel as if they are in ancient buildings or on famous historical and cultural sites in China even when they are not. All these approaches can promote students' in-depth understanding and acceptance of Chinese culture. The various means available in the Internet era have become a quick method for students from different schools to learn about each other's cultures. Online means of communication, such as online interactive platforms and well-known social networking applications, allow students of different colors and languages to instantly communicate with each other, exchange their life experiences, and share their traditions. Such interactions can enhance students' awareness and respect for multiculturalism, allow them to form their opinions about the world, and improve their communication skills. Cross-cultural interactions using multimedia technology can significantly reduce cultural difference-induced misunderstandings and disputes and help students get along with each other. Thus, using multimedia technology in teaching Chinese as a foreign language can not only improve the interactivity of teaching but also facilitate cultural exchange and understanding.

3. Challenges and Coping Strategies of Multimedia Technology in Teaching Chinese as a Foreign Language

3.1 Challenges of Multimedia Technology in Teaching Chinese as a Foreign Language

Multimedia technology encounters several obstacles in the context of teaching Chinese as a foreign language [7]. Firstly, there are constraints related to both technological equipment and network infrastructure. In certain areas, schools utilize outdated multimedia devices, such as low-resolution projectors and substandard audio systems, which detract from the quality of multimedia presentations and decrease the overall learning experience for students. Additionally, slow and unreliable internet connections impede the use of online teaching platforms, resulting in video buffering, extended loading times, or even the inability to access necessary teaching materials.

The performance variability of students' mobile phones or tablets further complicates the effectiveness of learning applications integrated with mobile devices. Secondly, the requirements for teachers' technical expertise and pedagogical skills have increased. Educators are expected to be proficient not only in traditional teaching methods but also in operating various multimedia devices, utilizing online teaching platforms, and designing and managing mobile teaching applications. However, due to insufficient technical training, some educators struggle to produce interactive courseware and to effectively guide student participation. Furthermore, teachers must continually adapt their teaching approaches to address evolving needs, such as personalized instruction and providing real-time feedback. Lastly, the differences in students' abilities for self-directed learning and information literacy pose significant challenges. In a multimedia teaching context, students are required to have self-management skills, such as effective time management, selecting suitable learning resources, and actively engaging in online discussions. However, not all students excel in independent learning; some are overly dependent on teacher guidance and show limited motivation for self-initiated exploration. Moreover, students' information literacy levels vary, with some lacking familiarity with multimedia tools and online platforms, which hinders their ability to access and utilize educational resources effectively. For example, they may struggle to use speech recognition software for oral practice or to collaborate with peers on digital platforms.

3.2 Strategies to Address the Challenges of Multimedia Technology in Teaching Chinese as a Foreign Language

To address the challenges associated with multimedia technology in teaching Chinese as a foreign language, several strategies can be implemented. First, it is crucial to upgrade technological equipment and network infrastructure. Schools and educational institutions should allocate more resources to enhance multimedia teaching tools, including timely replacement of outdated devices, and installation of high-resolution projectors and superior audio systems to improve the audiovisual experience. Additionally, enhancing network infrastructure to increase speed and stability will ensure the seamless operation of online teaching platforms and mobile learning applications. Providing technical support to students for device maintenance and network troubleshooting can further facilitate uninterrupted teaching activities.

Second, improving teacher training and professional development is fundamental to addressing these challenges. Schools and educational institutions should offer training programs focused on operating multimedia devices, utilizing online teaching platforms, and developing interactive courseware to equip teachers with the necessary skills and knowledge. Participation in academic workshops and teaching observation sessions should be encouraged to help teachers update their instructional approaches and refine their teaching skills. Establishing professional learning communities can promote the exchange of experiences and foster collaborative efforts in exploring effective teaching strategies.

Furthermore, enhancing students' self-directed learning capabilities and information literacy is essential. Teachers should focus on nurturing students' interest and motivation in learning, guiding them in

effective time management and resource selection. Personalized assignments and learning recommendations can assist students in creating study plans and improving their learning outcomes. Moreover, information literacy education should be reinforced, enabling students to become adept at using multimedia devices and online platforms. Courses on information literacy or specialized lectures can be organized to increase students' proficiency in utilizing digital tools^[8].

Lastly, optimizing the management and development of teaching resources is critical. Schools and educational institutions should establish resource libraries that categorize, evaluate, and filter multimedia resources to ensure their quality and suitability. Teachers and students should be encouraged to contribute to resource development, such as by creating educational videos or compiling learning cases, thereby enriching the diversity and volume of available materials. Compliance with copyright laws and respect for intellectual property rights should be maintained when using resources. Additionally, collaboration with other schools, educational institutions, or enterprises to share high-quality resources can enhance resource utilization efficiency.

3.3 Future Trends of Multimedia Technology in Teaching Chinese as a Foreign Language
Multimedia technology plays a crucial role in the instruction of Chinese as a foreign language, though it also encounters specific challenges. Future development trends indicate a shift towards intelligent teaching methods. With advancements in artificial intelligence, technologies such as intelligent speech recognition, intelligent tutoring systems, and virtual reality (VR) and augmented reality (AR) are anticipated to enable more precise pronunciation assessments and feedback. These tools will provide personalized learning recommendations and guidance while creating immersive learning environments, ultimately improving teaching efficiency and quality to address students' individualized learning needs.

Another emerging trend is the integration of cross-platform teaching. In the future, there will be an increased focus on enabling both teachers and students to access educational resources and participate in online learning and interactions through various devices, such as computers, smartphones, and tablets. Teaching platforms are expected to integrate with social media and online education platforms to facilitate resource sharing and distribution, thereby broadening the scope of teaching. This integration will offer students more convenient and efficient learning methods, promoting the advancement of Chinese language instruction for foreign learners.

Additionally, the deep integration of cultural and language teaching is anticipated to grow. Multimedia technology can offer students a more direct understanding of Chinese culture by providing access to multimedia resources that enhance their cultural literacy and cross-cultural communication abilities. For example, virtual reality technology can allow students to virtually experience traditional Chinese festivals and folk customs, while online platforms can organize cultural exchange activities, enriching the educational process and increasing students' engagement and enthusiasm for learning.

Lastly, the enhancement of international cooperation and exchanges is another significant trend. The advancement of multimedia technology offers a broad platform for global collaboration in teaching Chinese as a foreign language. Educators and students can utilize online platforms to collaborate and share teaching experiences and resources with peers from various countries and regions, collectively contributing to the progress of the field. This trend also encourages innovation and the application of multimedia technology in education, providing students with high-quality learning opportunities and services^[9].

In conclusion, by upgrading technological equipment and network infrastructure, enhancing teacher training and professional development, fostering students' self-directed learning skills and information literacy, and optimizing the management and development of teaching resources, the existing challenges can be effectively mitigated, and the application of multimedia technology can be significantly enhanced. Looking forward, with the advancement of intelligent teaching methods, the integration of cross-platform learning, the deeper integration of cultural and language instruction, and the strengthening of international cooperation and exchanges, multimedia technology is expected to play an increasingly vital role in teaching Chinese as a foreign language, thereby supporting the growth of international Chinese education.

Conclusion: This study has empirically verified the crucial role of multimedia technology in improving the interactivity of teaching method for Chinese as a foreign language. Multimedia technology can effectively improve students' participation, visually present knowledge points of Chinese language, enrich teaching methods, considerably augment the effectiveness of teaching, and facilitate cultural exchange and understanding. The findings provide strong evidence supporting the role of multimedia technology in improving the method for teaching Chinese as a foreign language. Moreover, they underscore the broad application prospect of this technology in modern education. Due to its unique advantages, multimedia technology may find application in more teaching fields in the future.

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