

Application-Oriented Talents Training for Music Majors in Colleges and Universities Based on Internet Remote Technology

Lin Shui, Hunan College of Foreign Studies, China

Yuan Feng, Hunan College of Foreign Studies, China

Mengting Zhong, Hunan Liuyang Xinhua High School, China

Yu Qin, Hunan Institute of Traffic Engineering, China*

ABSTRACT

This paper mainly studies the cultivation of applied talents of music majors in colleges and universities based on internet remote technology. By analyzing the definition and development of internet remote technology and discussing the present situation and challenges of cultivating applied talents of music majors in colleges and universities, this paper puts forward a scheme of applying internet remote technology to cultivating applied talents of music majors in colleges and universities. In practice, this paper designs and constructs the distance teaching mode, optimizes the curriculum and teaching mode, and makes case analysis and evaluation. The results show that internet remote technology has obvious advantages in cultivating applied talents of music majors in colleges and universities, which can improve students' learning and learning satisfaction. Finally, this paper discusses the application prospect of internet remote technology in the cultivation of applied talents of music majors in colleges and universities and puts forward prospects and suggestions.

KEYWORDS

Internet Remote Technology, Music Major, Remote Teaching, Talent Cultivation

With the continuous development and popularization of internet technology, internet distance education has gradually become an important form of higher education reform, and it also offers broader development opportunities for higher education. The key to internet+ education lies in adhering to the concept of openness, breaking the constraints of geography and time through the digitization of resources, better adapting to the personalized characteristics of learners, meeting learning needs, and realizing learners' independent, effective and continuous learning. This new education model utilizes internet technology and platforms to combine traditional education with modern technology, aiming to improve the learning of students and the quality of teaching. It not only changes the way of education, resource sharing, and service improvement, but also promotes educational innovation and development. Music study occupies an important position in higher education, and the cultivation of applied talents is one of the important goals of music major education (Ma et al., 2022). Therefore,

DOI: 10.4018/IJWLTT.340388

*Corresponding Author

This article published as an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

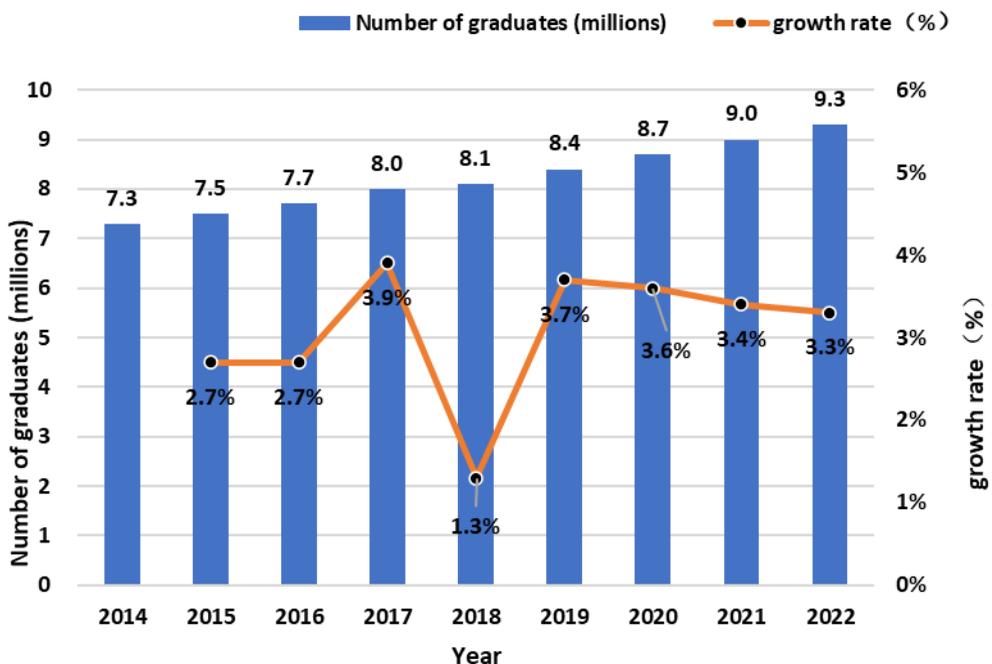
the cultivation of applied talents of music majors based on internet remote technology has become an important topic for music majors in colleges and universities (Xu, 2022).

Today, training music majors via internet remote technology is becoming increasingly common (Liu et al., 2021). Determining how to optimize the curriculum and teaching methods of internet learning is important and is related to teaching quality and students' learning achievements. Therefore, this paper will discuss how to improve the training for music majors by optimizing curriculum and teaching methods (Bai & Song, 2016).

The application of the internet in the field of education has played a positive role in facilitating access to and sharing of resources, self-directed learning and personalized education, distance education and online learning, global cooperation and communication, and education management and evaluation. Online learning allows students and teachers to access and share rich educational resources, while providing opportunities for independent learning and personalized education. Distance education has become possible, and students can take courses via the internet according to their own needs and arrangements. Educational cooperation and exchanges on a global scale have also been facilitated, and education management and evaluation have been realized in a more efficient and precise manner with the help of internet technology. These changes are of great significance in promoting the development of education and improving its quality. Therefore, it is necessary to innovate and optimize teaching methods to cultivate applied talents of music majors based on internet remote technology, so as to meet students' individual needs, improve teaching, and increase students' competitiveness. At the same time, we also need to pay attention to promoting teaching quality, ensuring the accuracy and integrity of teaching content, and providing a solid foundation and support for students' growth and development. The number and growth rate of college graduates in China from 2014 to 2022 are shown in Figure 1.

The labor market is growing more competitive due to China's steadily rising college graduate population, and traditional hiring practices are no longer able to keep up with demand. The emergence

Figure 1. Number and Growth Rate of College Graduates in China From 2014 to 2022



of internet-based remote technologies has opened new avenues and prospects for music majors to develop their applied talents. Students can obtain professional music education without geographical limitations by using internet-based remote technology. They can also be exposed to a greater variety of music cultures and consumer demands at the same time, which will make them more employable in the future.

Internet-based distance technology has experienced significant changes and innovations in the education of music majors in colleges and universities. Through online courses, teaching videos, and remote tutoring, students are able to learn in a more flexible and autonomous way, while also expanding subject content and practice opportunities, and promoting exchanges and cooperation with excellent teachers and peers around the world. This educational model optimizes the allocation of teachers and the use of resources, improves the comprehensive quality and innovation ability of students, and brings new ideas and opportunities to the field of education.

The cultivation of applied talents of music majors in colleges and universities is currently facing challenges. However, through use of the internet, a distance teaching mode can be designed and constructed to overcome these challenges. The model has great potential to optimize the curriculum and teaching methods. Through the case study and evaluation, it can be seen that while distance teaching provides more convenience and independent learning opportunities, it also provides colleges and universities with more space for development and the possibility of integrating faculty resources.

In the future, this teaching platform can be improved to develop the digital literacy of teachers and students in order to ensure the effective use and sustainable development of internet distance technology in music professional education in colleges and universities. This will provide more learning opportunities for students and promote exchanges and cooperation among excellent teachers and peers around the world, promoting further innovation and development of music education in colleges and universities.

TRAINING OF APPLIED TALENTS

Cultivation Status

Applied talent refers to the following characteristics of professionals who are competent for practical work: possessing a certain theoretical foundation, mastering solid professional knowledge and skills, being able to use what they have learned to solve practical problems, demonstrating innovation and practical abilities, and having a teamwork spirit and strong communication skills (Cao, 2011). At present, there are some problems in the cultivation of applied talents of music majors in domestic universities, such as deemphasizing the importance of theoretical knowledge, practical links, and close contact with market demand under the traditional teaching mode. At the same time, instructors' teaching ability and methods need to be further improved in the cultivation of applied talents (Wang & Zhang, 2022). Therefore, the cultivation of applied talents for music majors refers to the development of students with the ability to meet the needs of social and economic development and cultural construction and who have solid music professional knowledge and skills along with innovative and practical abilities in music creation, performance, teaching and management (Huang & Luo, 2021).

Its training objectives and requirements include demonstrating the following: (1) a solid foundation of music theory and professional skills and competency in music creation, performance, teaching and management; (2) an innovative spirit and practical ability, the ability to actively participate in music creation and performance, and constant improvement of their own ability in practice; (3) a comprehensive interdisciplinary foundation and extensive applicable knowledge in the fields of music art, cultural communication, science and technology; (4) an international perspective and language fluency, and the ability to adapt to international trends and cultural exchange needs; (5) a spirit of teamwork and capacity for leadership and management to complete tasks such as music creation, performance and teaching (Shu et al., 2021). With the support of internet remote technology, the goals and requirements of training applied talents for music majors are constantly evolving and expanding,

including but not limited to the application ability and practical experience in online music creation and performance, remote music teaching and curriculum design, music industry management and market expansion (Zhu et al., 2022). The scale of music education in China from 2017 to 2022 is shown in Figure 2.

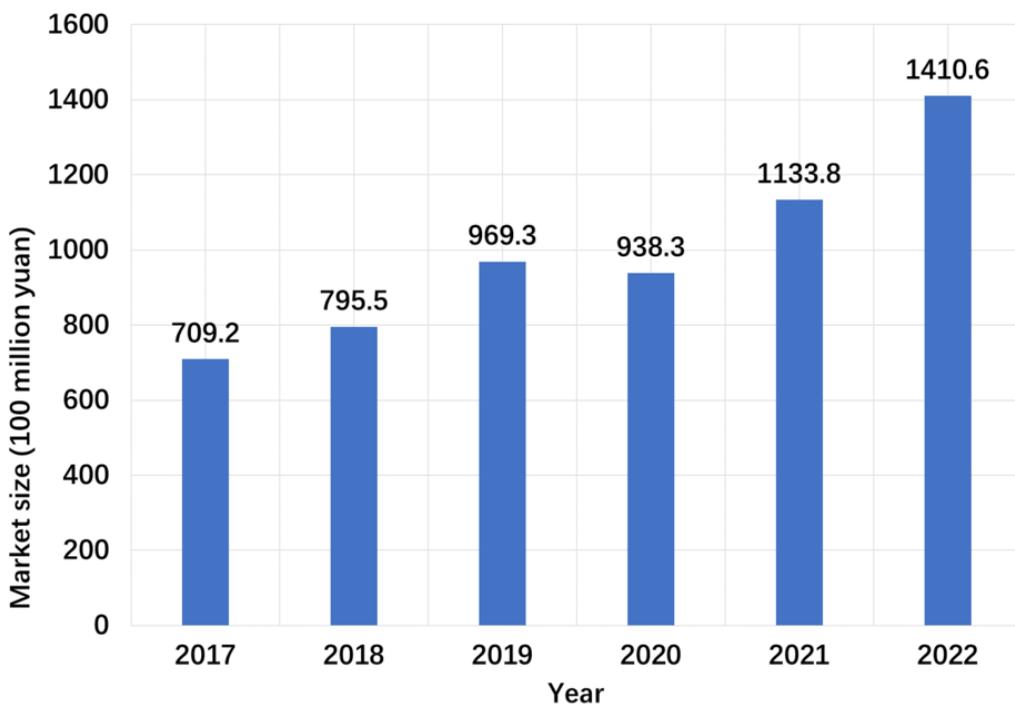
As China's higher education system continues to grow, more and more universities are offering art degrees, and the number of students studying music is also rising. Students majoring in vocal music outnumber those majoring in piano by a significant margin. Vocal music is a more popular major in universities than piano since it requires less time to master and yields faster results than piano. Over time, there will be a greater number of graduates specializing in vocal music, which will lead to a severe oversupply and more challenging employment conditions.

Internet Remote Technology

Internet remote technology refers to various remote communication technologies and applications based on the internet, including but not limited to video conferencing, online teaching, remote experiments, remote monitoring and other technologies. Internet remote technology is characterized by information sharing, real-time communication, convenience and efficiency, cost saving, and no geographical restrictions (Song et al., 2019). The calculation formula of distance teaching cost is as follows: distance teaching cost = (hardware cost+ software cost+ bandwidth cost)/number of students.

Internet remote technology can adopt various application modes in the training of applied talents of music majors, including but not limited to the following: (1) online course mode: through internet remote technology, music course content is transmitted online in the form of video, audio, picture and text, so that students can learn music courses at any time and any place, and teachers can coach and guide students online at any time (Ning et al., 2010); (2) remote experimental mode: the

Figure 2. Scale of Music Education in China From 2017 to 2022



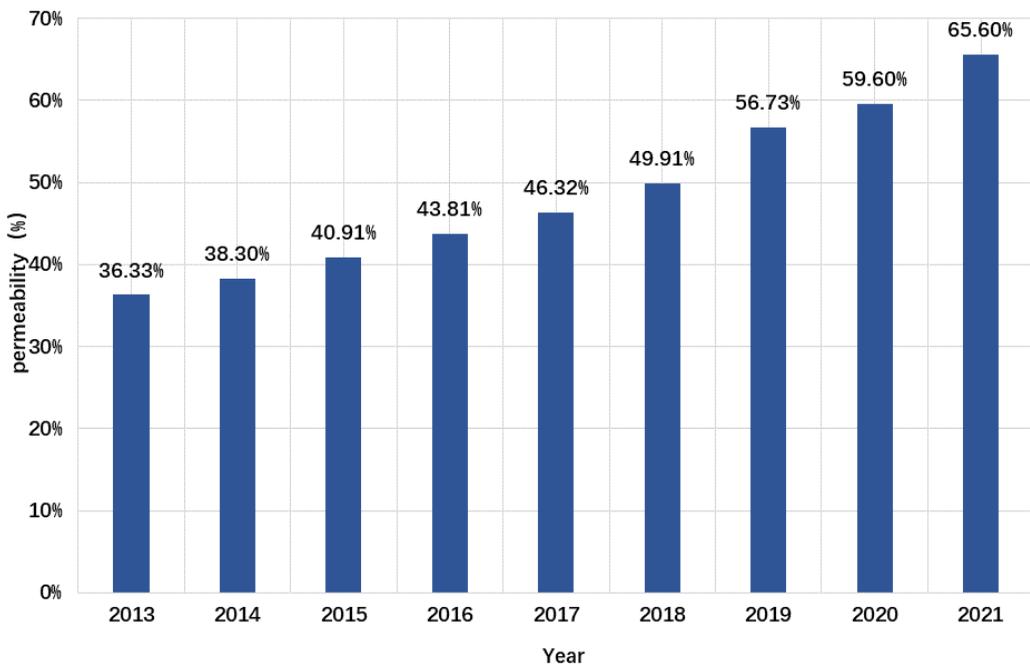
instruments and equipment of the music laboratory are connected to the internet through the internet remote technology, and students can conduct music experimental operations through remote control equipment, and teachers can guide and monitor students' experimental operations online; (3) online communication mode: through internet remote technology, students and teachers can have real-time music exchange and discussion, including online seminars, music competitions, online performances and other forms, so as to enhance students' practical ability and innovation ability (Yu & Xiong, 2022); (4) music creation mode: through internet remote technology, students can jointly create and play music online, using music creation software and online collaboration, so as to enhance students' innovative ability and teamwork spirit. For context, the global internet penetration rate from 2013 to 2021 is shown in Figure 3.

As internet technology continues to advance and gain traction, an increasing number of music education and learning activities are being carried out online. This has increased the variety and ease of use of the method of developing applied talents for music majors.

Practical Cases of Training Applied Talents

With the internet as a backdrop, educational institutions should rethink how they educate, develop professionals who can satisfy industry demands, value the integration of theory and practice, and develop students' educational and learning skills. (Guo, 2022). Examples of internet remote technology in the training of applied talents of music majors include the following: (1) An online music teaching platform. By establishing an online music teaching platform, students can learn music theory and playing skills remotely through the internet. The platform adopts various teaching modes, such as live teaching and online interaction, so that students can study music at home, regardless of time and place. The application of this model can better meet the individual needs of students and is conducive to the cultivation of applied talents in music majors. (2) Online music production and performance. Through internet remote technology, musicians from different regions

Figure 3. Global Internet Penetration From 2013 to 2021



can be combined to create and perform music. For example, they can use the network conference system for real-time collaboration or use online music production tools for collaborative creation. The application of this model can better promote the internationalization and diversification of music creation and performance, and cultivate students' cross-cultural and interdisciplinary ability (Fan, 2022). This platform can also be used for school-business collaboration. Majors in vocal music at colleges can create training programs tailored to their career goals, collaborate with social art training institutes, and plan frequent student field trips to observe business practices and corporate cultures. (3) Remote music grading. Using internet remote technology, we can conduct remote supervision and evaluation of music grading. Students can play through remote cameras, and evaluators can observe through video surveillance. The application of this model can better meet the examination needs of students in different regions, reduce the cost and time for students to take the examination, and facilitate the process of monitoring and evaluating examinations (Zhang, 2022). These practical cases show that internet remote technology has wide application prospects and practical significance in the training of applied talents of music majors.

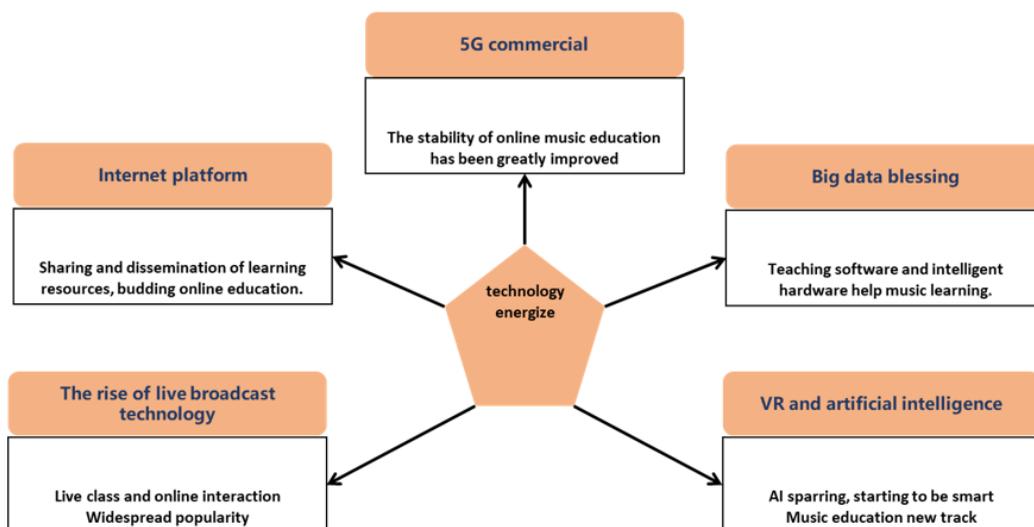
ADVANTAGES AND CHALLENGES

The advantages and challenges of internet remote technology in the cultivation of applied talents of music majors are as follows: (1) Improving teaching efficiency. Through internet distance technology, students can learn anytime, anywhere. Teachers can also provide accurate teaching guidance based on students' learning situations. (2) Enriching teaching resources. There are numerous teaching resources for music majors on the internet, such as music videos, music textbooks, and music teaching courseware. Through the remote technology of the internet, students can easily access these resources, thus enriching their learning content and improving their learning effectiveness (Li, 2022). Numerous applications are available at the moment, including VR Real Person Online Classroom, MOOC, Netease Cloud Classroom, Smart Classroom, and others. (3) Improving students' autonomous learning abilities. Internet remote technology can provide students with opportunities for autonomous learning, which can improve their independent thinking and independent inquiry, which are of great significance for cultivating applied talents of music majors (Yan, 2016). Students can use the online platform to access more comprehensive learning resources. Students can also produce knowledge content at the same time by creating, displaying, and publishing their academic successes online. The development of China's music education industry in the direction of data and intelligence in 2022 is shown in Figure 4.

The development of the music education industry in China is significantly influenced by the technical elements mentioned in Figure 4. First, online music education will become much faster and of higher quality thanks to the widespread adoption of 5G networks. Second, the proliferation of live streaming technology and internet platforms have made music education more accessible and well-liked. Third, the use of big data technology in music education helps to enhance curriculum design and instructional quality by providing a deeper understanding of students' learning environments and needs. Fourth, the use of virtual reality and artificial intelligence technologies can offer more individualized and effective teaching strategies as well as instruments for music education, enhancing the effectiveness and caliber of instruction.

The challenges of internet remote technology in the cultivation of applied talents of music majors are as follows: (1) Technical limitations. The application of internet remote technology needs advanced technical support. For some schools without advanced technology, there are technical limitations. (2) Lack of interaction. Music majors pay attention to interactive teaching, but the application of internet remote technology may have the problem of insufficient interaction in some cases, which affects the effectiveness of teaching (Li et al., 2022). Although the internet is not limited by time or location, its resources are not all-knowing. The integration of instructional strategies and instructional materials is necessary to raise the caliber of instruction. Teaching resources, no matter how rich and numerous,

Figure 4. Development of Digitalization and Intelligentization of China's Music Education Industry in 2022



will not benefit students if teachers are unable to use them appropriately. (3) The quality of students' learning cannot be guaranteed. Due to the changes in the application forms and teaching methods of internet remote technology, the learning quality of students cannot be guaranteed, which poses certain challenges for the cultivation of applied talents in music majors. In the process of music instruction, teachers must master standards and advance towards teaching goals. The entertainment function of the internet is greater than the teaching function, which may result in reducing the significance of teaching and preventing students' aesthetic abilities from being cultivated.

PERSONNEL TRAINING MODE OPTIMIZATION

Training Mode Design

The training of applied talents for music majors based on internet remote technology needs to be comprehensively designed and consider curriculum design, teaching methods, practice links, assessment and so on. First, according to the characteristics of music majors and the training objectives of applied talents, we should design a curriculum that meets the teaching requirements, including compulsory courses, elective courses, and practical courses (Che et al., 2022). Second, we should choose teaching methods and teaching resources suitable for distance teaching, such as recording and broadcasting courses, real-time interactive classrooms, and network seminars. At the same time, it is necessary to strengthen training in practical links, including concert, choir, and stage performances, so as to improve students' practical abilities (Jiang, 2022). Finally, regarding assessment, various methods should be used, such as performance, homework, exams, and papers, to ensure that students' abilities are evaluated comprehensively.

Curriculum

Curriculum is the basis of teaching activities, which directly affects students' learning effectiveness and ability level. In the training of applied talents for music majors based on internet remote technology, the curriculum needs to be formulated according to the actual situation of students and the training objectives (Zhu et al., 2021). The following are specific measures to optimize the curriculum: (1) Setting courses scientifically and reasonably. When creating and scheduling courses, we should

determine the contents and hours of each course scientifically and reasonably according to the actual situation and training objectives of students, so as to avoid duplication or singleness of contents (Xu, 2022). At the same time, according to the characteristics of music majors, we should combine basic theoretical knowledge with practical skills and pay attention to students' practical ability and practical experience (Bhutoria, 2022). In addition, we should also consider the interdisciplinary nature of the course to provide students with a comprehensive learning experience. (2) Strengthen practical links. In the training of applied talents for music majors based on internet remote technology, the importance of practice cannot be ignored. Therefore, we should give full consideration to the setting of practical links in the curriculum and strengthen the cultivation of students' practical abilities. Practical links can include experiments, internships, creations, performances and other forms, so that students can gradually master professional knowledge and skills in practice and improve their practical abilities. (3) Strengthen course evaluation and feedback. In the course setting, we should pay attention to the methods and effectiveness of student evaluation and the quality of responses to their performance. Through regular examinations, homework, practice reports, and the like, we can determine students' learning situation and give targeted feedback and counseling to help students correct their mistakes and improve their learning effectiveness. Self-evaluation and mutual evaluation are two components of evaluation that must be considered during the design process. It is important for students to take part in the evaluation process. Students can more easily identify areas for improvement and learning gaps by shifting their perspectives.

Optimization of Teaching Methods

The teaching method is an important aspect in the cultivation of applied talents of music majors. In traditional music teaching, face-to-face teaching is usually adopted, but in distance education, this method is not applicable (Fu et al., 2018). Therefore, in order to adapt to the characteristics of internet remote technology, new teaching methods such as the following must be adopted.

(1) Multimedia teaching method. Multimedia teaching combines text, pictures, sound, video and other media forms. In the training of applied talents in music majors, multimedia teaching can be used to demonstrate music performance, music analysis, music creation, and so on. For example, the instructor can demonstrate playing various musical instruments by recording videos or demonstrating the characteristics of different musical forms by audio, which can help students better master music knowledge. (2) Interactive teaching method. Interactive teaching emphasizes students' participation. With internet remote technology, students can interact with teachers in real time, ask questions, answer questions, discuss and so on through the network platform. This teaching method can stimulate students' interest in learning and promote the development of students' learning motivation and thinking abilities. (3) Cooperative learning method. Cooperative learning is designed to promote students' learning through collaboration. Students can be divided into several groups, and cooperative learning allows them to learn from each other, discuss, and cooperate to complete tasks. This teaching method can cultivate students' team spirit and ability to organize and coordinate. (4) Individualized teaching method. Individualized teaching addresses students' individual differences. There are differences in students' music literacy, skill levels, and hobbies (Luo, 2023). Therefore, a personalized teaching method can adopt different techniques and contents according to the characteristics of students, so as to meet the learning needs and interests of students to the greatest extent.

Role of Optimization Methods on the Talent Training Mode

The optimization of teaching methods is a crucial link in the cultivation of applied talents of music majors based on internet remote technology. Through multimedia technology, online interaction, personalized learning and other means, students' personalized needs can be better met, students' interest and initiative in learning can be improved, students' creativity and imagination can be stimulated, and students' independent thinking and problem-solving ability can be cultivated. However, we should also pay attention to promoting teaching quality, ensuring the correctness and integrity

of teaching content, and ensuring the learning effectiveness of students. Therefore, teachers should constantly adjust teaching methods, pay attention to students' learning situations, give timely feedback and guidance, and ensure the maximization of teaching effectiveness. In terms of curriculum, according to students' different needs and characteristics, we can design different curriculum modules, such as a basic knowledge module, a skill practice module, and a creative development module. In terms of course content and textbook selection, it is also necessary to fully consider the training objectives and actual needs of applied talents in music majors and combine the current trends and needs of the industry and market to select suitable textbooks and cases for teaching, so as to ensure the relevance and practicality of instruction.

DEVELOPMENT OF INTERNET REMOTE TECHNOLOGY

Internet Remote Technology in Personnel Training

With the continuous development of information technology, the application of internet remote technology in the training of applied talents of music majors will also be continuously developed and improved. First, internet remote technology will further promote the innovation and change of music education and provide more diversified and personalized teaching methods and means for the cultivation of applied talents in music majors. Second, internet remote technology will promote the globalization of music education and promote the exchange and integration between different cultures. In the future, internet remote technology will become an indispensable part of the training of applied talents of music majors and will serve the development and promotion of music education more deeply. At the same time, the application of internet remote technology also faces a series of challenges, such as how to ensure the quality of teaching, how to improve the enthusiasm and initiative of students, and how to balance the relationship between online teaching and offline teaching. Therefore, it is necessary to constantly explore and innovate, improve the quality of teaching, and better serve the cultivation of applied talents in music majors. Internet remote technology has broad application prospects for the training of applied talents of music majors.

Prospects for Internet Remote Technology in Personnel Training

In the future, with the continuous development and application of new technologies such as artificial intelligence, virtual reality, and blockchain, the application of internet remote technology in the training of applied talents of music majors will be more extensive and in-depth. For example, artificial intelligence can combine the functions of automatic grading and intelligent recommendation in music teaching to improve the efficiency and quality of music learning. Virtual reality technology can build a more real and vivid music learning environment and enhance students' learning experience and feelings. Blockchain technology can realize the protection and management of music intellectual property rights and provide better guarantee for the development of music industry. Therefore, we should strengthen the research and application of internet remote technology in the training of applied talents of music majors, constantly innovate teaching modes and methods, improve the comprehensive quality and competitiveness of applied talents of music majors, and promote the development and progress of the music industry.

Discussion and Suggestions

The application of internet remote technology in the cultivation of applied talents of music majors not only expands the teaching methods and improves teaching effectiveness, but also provides inspiration. First, the application of internet remote technology broadens the way students learn music and enhances the popularity and coverage of music. Second, the application of internet remote technology promotes the modernization and individualization of music education and meets the learning needs and interests of different students. Finally, the application of internet remote technology

also provides opportunities for cross-cultural communication and improved the international vision and competitiveness of music majors.

Based on the above research, this paper puts forward the following suggestions: First, we should actively promote and apply the cases and modes of internet remote technology in the training of applied talents of music majors to improve the teaching level and efficiency. Second, we should pay attention to the diversity of application modes of internet remote technology and choose and combine them according to different teaching purposes and needs to improve teaching effectiveness and efficiency. Third, we should strengthen technical support and quality assurance, improve teaching management mechanisms and curriculum evaluation systems to ensure teaching quality and effectiveness. Finally, we should continue to study and explore new modes and methods of internet remote technology in the training of applied talents of music majors, constantly improve the training system of applied talents of music majors and promote the development of music education.

CONCLUSION

With the continuous development and popularization of information technology, internet remote technology has become an indispensable part in the training of applied talents of music majors. Through internet remote technology, applied talents of music majors include independent learning, interactive communication, and innovative practice without time and space constraints, allowing students to make greater contributions to industry and society. Therefore, this paper considers the application of internet remote technology in the training of applied talents of music majors, and finds the following conclusions.

First, internet remote technology can provide an effective teaching means and platform for the cultivation of applied talents of music majors, which is beneficial to students' learning and teachers' instruction. Second, the applications of internet remote technology are diverse and can be selected and combined according to different teaching purposes and needs to improve teaching effectiveness and efficiency. Third, internet remote technology faces some challenges in the training of applied talents of music majors, such as unstable network environments and significant requirements for technical equipment, so it is necessary to strengthen technical support and quality assurance. Finally, training of applied talents for music majors based on internet remote technology should focus on the optimization of curriculum design and teaching methods and strengthen the evaluation of teaching effectiveness and quality assurance.

REFERENCES

- Bai, J., & Song, Y. (2016). Research and practice on the training mode of the core competence about the application-oriented electrical information engineering undergraduate. *SHS Web of Conferences*, 24.
- Bhutoria, A. (2022). Personalized education and artificial intelligence in United States, China, and India: A systematic review using a human-in-the-loop model. *Computers and Education: Artificial Intelligence*, 100068.
- Cao, L. (2011, July). *Notice of retraction: Research on the application-oriented talents training in measurement and control technology*. The 2011 Third Pacific-Asia Conference on Circuits, Communications and System (PACCS). doi:10.1109/PACCS.2011.5990082
- Che, C., Luo, Q., & Mao, Y. (2022). The reform of engineering professional online education courses by artificial intelligence and wireless network technology in the context of engineering certification. *Wireless Communications and Mobile Computing*, 2022, 2022. doi:10.1155/2022/3822931
- Fan, R. (2022, October). Strategies and paths for training network and new media professionals in the era of big data technology. In *Signal and Information Processing, Networking and Computers: Proceedings of the 9th International Conference on Signal and Information Processing, Networking and Computers (ICSINC)*. Springer Nature Singapore. doi:10.1007/978-981-19-4775-9_159
- Fu, W., Liu, S., & Dai, J. (2018). *E-learning, e-education, and online training*. Academic Press.
- Guo, Y. (2022, October). *Construction of an application-oriented undergraduate college student integrity education information system based on cluster big data analysis algorithm*. The 2022 International Conference on Edge Computing and Applications (ICECAA). doi:10.1109/ICECAA55415.2022.9936137
- Huang, M., & Luo, D. (2021). *Research on the application strategy of mixed teaching mode of visual communication design specialty in colleges and universities based on multidimensional interaction*. *E3S Web of Conferences*, 251, 03083.
- Jiang, H. (2022). Analysis of practice model for translation technology teaching based on artificial intelligence. *SHS Web of Conferences*, 140, 01034.
- Li, L., Song, Z., Liang, Y., Zhao, L., Qin, Y., Li, Q., Liao, X., & Luo, Q. (2022). Application of the teaching mode combining “virtual simulation+ emergency care simulator” in surgical nursing. *Creative Education*, 13(12), 3904–3914. doi:10.4236/ce.2022.1312250
- Li, Z. (2022). Research on the construction of application-oriented undergraduate data science and big data technology courses. *Journal of Contemporary Educational Research*, 6(5), 69–74. doi:10.26689/jcer.v6i5.3968
- Liu, X., Song, J., Qin, Y., Zhang, B., & Li, W. (2021, April). *The educational reform and exploration of data communication technology under the blending model of school, enterprise, industry and education*. The 2021 International Conference on Internet, Education and Information Technology (IEIT). doi:10.1109/IEIT53597.2021.00015
- Luo, X. (2023). Wireless sensor network and AI application for educational technology course. *Journal of Sensors*, 2023, 2023. doi:10.1155/2023/2093354
- Ma, S., Song, Q., Yue, S., Wang, J., Wang, C., Cong, H., & Han, C. et al. (2022, July 15-20). *Applied research on cultivating advanced technical engineering talents based on the Internet of Things+ platform with dual-professional teachers as the guidance*. Advances in Artificial Intelligence and Security: 8th International Conference on Artificial Intelligence and Security, ICAIS 2022, Qinghai, China.
- Ning, Y., Zhang, S., Han, Q., Song, J., & Pei, C. (2010, September). Teaching reform of rural vocational education based on modern educational technology. In *The 2010 International Conference on Educational and Information Technology*. IEEE.
- Shu, W., Fengling, Y., Dong, H., & Ruzhuan, W. (2021, April). Research on double tutor group of postgraduates based on network technology. In *The 2021 International Conference on Internet, Education and Information Technology (IEIT)*. IEEE. doi:10.1109/IEIT53597.2021.00093

Song, H., Lin, D., Zhong, P., Sheng, Y., & Wang, W. (2019, August). Project-driven information talents training mode in opening environment. In *The 2019 14th International Conference on Computer Science & Education (ICCSE)*. IEEE. doi:10.1109/ICCSE.2019.8845500

Wang, X., & Zhang, D. (2022, October). Design and implementation of online training platform for logistics management based on JSP technology. In *The International Conference on Computer Network Security and Software Engineering (CNSSE)*. SPIE. doi:10.1117/12.2640992

Xu, N. (2022). Digital construction of vocal music teaching resource base using data mining technology. *Journal of Environmental and Public Health*, 2022, 2022. doi:10.1155/2022/8351868 PMID:35942141

Xu, Y. (2022). The new media environment presents challenges and opportunities for music education in higher education. *Journal of Environmental and Public Health*, 2022, 2022. doi:10.1155/2022/9261521 PMID:35874885

Yan, H. U. (2016). Talent training approach and training program oriented adaptive demand for cross-border electricity suppliers. *International Journal of Simulation--Systems, Science & Technology*, 17(40).

Yu, P. J., & Xiong, M. Z. (2022). Remote vocal singing course design based on embedded system and Internet of Things. *Mobile Information Systems*, 2022, 2022. doi:10.1155/2022/8712081

Zhang, F. (2022). Design and application of artificial intelligence technology-driven education and teaching system in universities. *Computational and Mathematical Methods in Medicine*, 2022, 1–10. doi:10.1155/2022/8503239 PMID:36124170

Zhu, M., Yang, L., & Zhang, Y. (2022, September). Design and application of project-based teaching of convergence media smart classroom based on VR+ AR technology. In *The 2022 International Conference on Education, Network and Information Technology (ICENIT)*. IEEE.

Zhu, T., Ji, Z., Cao, K. R., & Ling, Q. D. (2021, January). Integrated design and exploration of curriculum system of engineering technology related majors for connection between secondary and higher vocational education. In *The 2021 2nd International Conference on Education, Knowledge and Information Management (ICEKIM)*. IEEE. doi:10.1109/ICEKIM52309.2021.00034