Application and Prospect of Multimedia Technology in Piano Teaching in Colleges

Sihui He

1School of Art Education, Guangdong Teachers College of Foreign Language and Arts, Guangzhou, Guangdong, China, 510640

*Corresponding author e-mail: 232422@gtcfla.edu.cn

Abstract. The 21st century is a multimedia era, and all walks of life have been unable to separate from the Internet, cloud computing, IOT and other new media. The development of multimedia is an important product of information technology, which has occupied an important position in various fields, including the education industry. With the promotion of education informatization, Piano Teaching (hereinafter referred to as PT) in Colleges is gradually applied to the Multimedia technology (hereinafter referred to as TMT), which requires Colleges to constantly improve the relevant equipment and resources. Through TMT, we can enrich teaching resources and teaching forms, which will improve the classroom efficiency of PT. Combined with the current situation of multimedia teaching, this paper analyzes the problems of PT in Colleges. Then, this paper puts forward some suggestions.

Keywords: Piano Teaching, Multimedia Technology, Teaching Form

1. Introduction
TMT is a new media mode based on information media. Compared with traditional media, TMT has changed a lot in time and space. It is an interactive digital composite media based on digital technology and network technology[1]. In the field of teaching, TMT can carry and transmit teaching information, which is a modern tool. There are two interrelated elements in TMT. The first is hardware or modern teaching equipment, which is a variety of teaching machines to store and transmit teaching information. The second is software, which is a variety of pieces, tapes and floppy disks that carry teaching information[2]. The application of multimedia in teaching affects teachers' teaching ideas and practice methods, which constantly changes students' learning concepts and learning methods. TMT is the most important teaching auxiliary mode in modern education, which can play a key role in any teaching stage. In the PT of Colleges in China, the application of TMT has become an important step in its reform and development[3]. Therefore, we must realize the integration of TMT and PT, which will become an important way for piano teachers in Colleges. At present, multimedia PT has achieved certain results, which requires the effective integration of TMT and PT.

2. The role of TMT in PT
TMT has many functions in PT, as shown in Figure 1.
2.1. Improve students' aesthetic ability

Piano is an art subject, which requires students to have aesthetic ability. Therefore, in PT, teachers should cultivate students' aesthetic ability, which is the basis of teaching. Through the integration of TMT, piano teachers can help students better understand the emotion of music, which will improve students' aesthetic ability. In the actual teaching process, TMT has abandoned the space limitation of traditional teaching mode, which can improve students' multiple learning of fingering operation. Therefore, TMT can help students' better practice, which will help students understand the expression of music emotion in a variety of ways. This will help students better understand and express their emotions through multimedia[4].

2.2. Improve piano learning efficiency

In PT, TMT can effectively change the status of students in the piano learning process. Students will change from passive knowledge acceptor to active knowledge taker, which will improve piano learning efficiency. TMT is based on PT mode, which can give students visual and auditory enjoyment. At the same time, by creating a good learning situation, we can create a good learning atmosphere, which can fully mobilize students' interest in piano learning. By mobilizing the initiative of piano learning, Colleges can provide support for students to improve piano level faster. At the same time, TMT can make students understand piano playing knowledge more comprehensively and thoroughly, which shortens the teaching time of piano class. By increasing students' learning and watching time, TMT can change the traditional time requirements, which will effectively improve the efficiency of PT[5].

2.3. Promoting the diversification of teaching methods

In the traditional PT, the teacher is the leader of the classroom, which often focuses on the one-way transmission of content and fingering. Therefore, most students accept knowledge passively. Flipped classroom has changed the traditional teaching mode of students' learning and practice, which is also based on TMT. With the development of the times, multimedia equipment has become a new way of learning. TMT relies on its own video and audio technology, which provides a learning environment for students. In the teaching process, we can show the story in the repertoire to the students, which can effectively understand the emotion in the piano repertoire[6]. Through the expansion of students' thinking ability and space, we can speed up the students' understanding ability of the internal emotion of piano knowledge, which can better produce emotional communication and resonance. Through multimedia teaching, we can improve students' comprehension and performance. Through the screening of high-quality resources, university teachers can transmit them to students, which can really play the main role of students. Therefore, TMT promotes the diversified development of teaching methods.

2.4. Improve students' comprehensive ability
Modern media teaching mainly focuses on improving the overall quality of students. Traditional music teaching methods hinder the development of students' art and personality, but new media teaching can change the monotony of teaching. Through the two-way communication between teachers and students, teachers can stimulate students' enthusiasm to learn piano. The basic core of music is aesthetics, which can create a good teaching environment by means of multimedia teaching. By inspiring students to create and imagine the beauty of music, students can improve the aesthetic quality and ability of piano. Through TMT, students can improve the piano playing skills, which will improve students' aesthetic and music perception ability. Through new media technology, we can improve students' performance skills. Through the new media technology, students can show and express their inner feelings, which will stimulate students' innovation ability and improve their comprehensive ability.

3. Problems in PT

This paper is based on the field survey. 500 formal questionnaires were sent out, 483 effective questionnaires were sent out, and the effective rate was 96.6%.

3.1. The contradiction between tradition and Modernity

With the development of information technology, there are more channels for students to acquire knowledge. Therefore, each student will be more or less affected by the new thinking. According to the survey results, the main problem is serious traditional teaching concept, accounting for 56.8%. Details are shown in Figure 2.

![Figure 2. The contradiction between tradition and Modernity.](image)

3.2. The contradiction between students' individuality and generality

Different students have different interests and degrees, which will lead to different interest in learning piano. According to the survey results, the main problem is lacking of interest in learning, accounting for 61.4%. Details are shown in Figure 3.

![Figure 3. The contradiction between students' individuality and generality.](image)

4. Integration design of TMT and PT
4.1. The structure of TMT in PT
Under the background of the continuous development of TMT, PT concept in Colleges has achieved a more obvious breakthrough. The effective integration of TMT and PT in Colleges can achieve a deep understanding of the emotional aspects of piano performance repertoire. Through the intuitive visual way, we can pass on the piano playing repertoire to the students, which can enable the students to understand and improve the piano performance level more comprehensively and deeply. TMT realizes the effective construction of PT system in Colleges, which creates a good learning environment for students. Therefore, we must strengthen the structure of TMT in PT, which is an important breakthrough in college PT.

4.2. The overall design of TMT in PT
If we want to fully play the role of TMT in PT, teachers must pay attention to the design effectiveness of TMT in PT. With the effective integration of TMT and PT, teachers can design the multimedia PT mode from the following aspects. First, multimedia dynamic spectrum recognition. In the process of piano learning, reading score is the most basic learning link. The traditional teaching method is boring, so teachers can rely on TMT to design the course for students. In the process of video spectrum recognition, teachers can use audio technology to play every piece or even every section of music repeatedly, which can help students master the intonation better in the process of recognizing music score. Therefore, TMT can lay a good foundation for students to learn piano. Second, multimedia emotional experience. Emotional experience is an important part of PT, which can let students better express their emotions in the process of playing. Teachers can use TMT to play the performance video of famous pianists, which allows students to enjoy the works while observing and learning the emotional performance of pianists. Through TMT, we can help students to improve emotional expression, which can provide subjective power support for emotional and beautiful PT.

4.3. Innovation and breakthrough of PT materials
In PT in Colleges, teaching materials can’t determine everything, but it is also the basis of teaching activities. Therefore, we must achieve innovation and breakthrough in PT materials. In the teaching material compilers should carefully study the current PT mode, especially the effective integration between TMT and PT. By relying on TMT, we can compile multimedia PT materials with more novel mode, more comprehensive knowledge and more systematic learning, which can mobilize students' learning initiative. Students can acquire knowledge and skills in piano learning, which can improve their quality and character. We can lay a good and solid foundation for the cultivation of qualified piano talents by realizing the overall quality training of students through piano education.

5. Conclusion
TMT is a typical representative of modern educational technology. Through the effective integration of multimedia and PT, we can help students’ better master piano technology, which will effectively promote the development of PT in Colleges. Therefore, the effective integration of TMT is the most important step in the development of college piano education. In the actual teaching process, we can better play the role of TMT. Through multimedia, we can present the knowledge of PT, which provides power support for the cultivation of piano talents in Colleges.

References
[1] Cao Bing, Shi Feng. Application of we media in the teaching of sports human science courses [J]. Sports, 2015 (10): 84-86.
[2] Han Ruonan. On the integration of information technology and PT in normal universities [J]. Journal of Hotan Teachers College, 2010 (5): 233-234.
[3] Liu Xiaolin. Analysis of TMT and PT Innovation [J]. Music time and space, 2013 (11): 78-79.
[4] Liu Xin, Li Yuying. Exploration and Research on piano learning community in normal universities under the network environment [J]. Art education, 2016 (06): 221-224.
[5] Ning Wenyan, Wu Yongqiang. Application and practice of computer technology in PT [J]. China Science and education innovation guide, 2012 (2): 187-188.

[6] Xiong Yiping. Application of TMT in College PT [J]. Yihai, 2014 (2): 115-117.