Application and Comparative Study in Domestic and International Music Education Systems: Based on the Cultural Integration Perspective

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Abstract: Mixed reality is an emerging technology further developed based on virtual reality and augmented reality, which brings a better user experience in terms of immersion and interaction. At present, more and more music education researchers and practitioners have begun to devote themselves to the music education application research of MR technology. And with the deepening of music education reform, China's music education has made great progress, improve teaching quality, students' music literacy also gradually improve, but relative to some music education system more mature western countries have a big gap, so it is necessary to analyze the music education system at home and abroad, find the advantages of foreign music education system, and combined with the basic national conditions of our country for the necessary reform of our music education system optimization.
Keywords: Mixed Reality Technology, Virtual Reality, Augmented Reality, Music Education Application, Music Education Reform, Diversity In Music Education, Differentiated Teaching

1. INTRODUCTION

This paper is dedicated to the application of mixed reality technology in the field of music education and the comparative research of music education under the traditional education model. Nowadays, with the development of science and technology, mixed reality has been widely used in various fields, but mixed reality still has a very large research gap in the field of music education, and education needs to be actively developed with scientific progress, so combining mixed reality with the field of music education has become the development direction and trend of music education in the future.This paper elaborates on the relevant concepts of mixed reality and various technologies in this field, lists its application in various fields, compares traditional music education, and combines the

differences in music education in various countries to find a breakthrough in the field of mixed reality in the field of music education.Provide more theoretical support for the development of music education in the future.

1.1. Mixed Reality Related Overviews

Mediated reality and mixed reality are collectively referred to as MR in the field of smart wearables. Mediated augmented reality refers to the combination of intelligent system reality and virtual data information screen reality, and it feels that all smart home products will eventually gradually connect from AR technology to MR technology (Xiaoying Li, 2024). In 1994, the concept of reality-virtual continuum was put forward, the connotation of MR pioneering discussion, think in virtual reality unity, the left end represents the completely real world, the right end is completely virtual visual environment, and in the area between the poles is mixed reality, both augmented reality, and enhanced virtual, emphasizes the mixed reality is a seamless integration of the real world and virtual environment. Augmented reality and virtual reality are outdated, and each of them is no longer a separate concept, but only a part of mixed reality, and the three are already inextricably linked. Mixed reality is a combination of technologies that provide not only new viewing methods, but also new input methods, and all methods combine with each other to drive innovation.

The combination of input and output is a key differentiation advantage for SMEs. This way, mixed reality can directly affect your workflow, helping you and your employees improve productivity and innovation. Let's look at some feasible solutions to understand how they work and how they can help. Mixed reality technology (MR) is a further development of virtual reality technology, which presents virtual scene information in real scenes and builds a loop of interactive feedback between the real world, virtual world and users to enhance the reality of user experience. To sum up, MR is a kind of using computer image technology, sensing technology and visual wearable devices and other related technology and equipment, realize the digital virtual object and real world object coexistence visual environment, and can make the user on the basis of the normal perception of the real world to build virtual and real world interactive feedback loop, achieve the virtual world and the real world and the depth of interaction (R. Li, 2024). MR can not only stack digital objects into the real world, or also stack real objects into the virtual environment, but it is not simply superimposed, but rather achieves the deep fusion of virtual and real, thus

forming an organic unity as shown in the Figure 1.

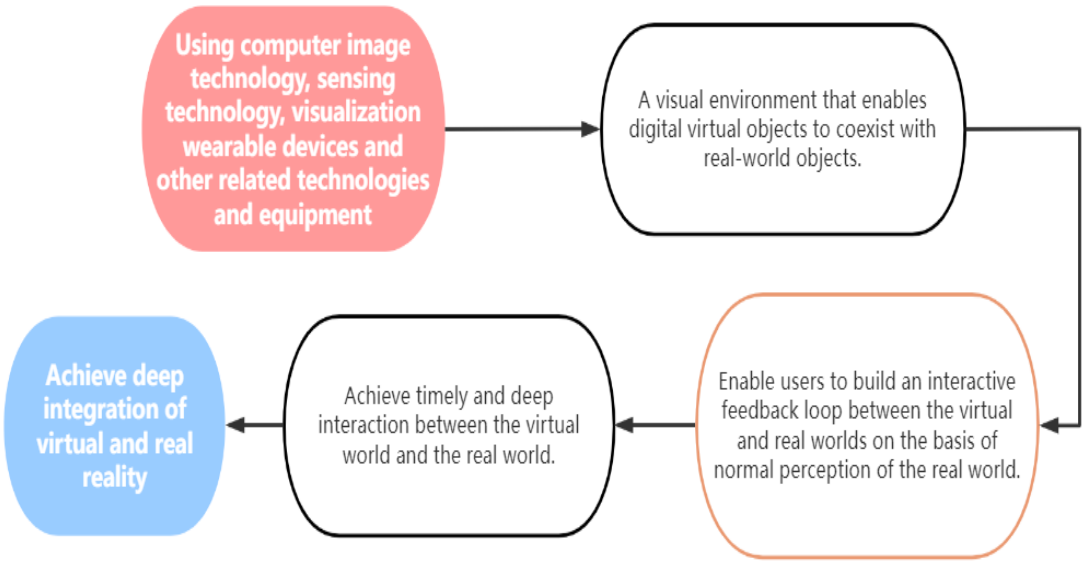

Figure 1: About how Virtual Environments Introduce Real-World Scenarios to Enable Mixed Reality Graphs

2. THE APPLICATION CHARACTERISTICS OF MIXED REALITY IN THE FIELD OF MUSIC EDUCATION

2.1. Virtual and Real Integration

VR only creates virtual space, and AR simply superlays virtual information into the real world, while MR technology blurs the boundary between the virtual and the real world. Scholars have three different views on the integration of virtual and real things. First, they believe that MR superimposes real things into the virtual digital space. MR first virtualizes real things and then superimposed into a virtual world, where real and digital objects coexist in a new environment. The second is that MR overlays virtual objects into the real world. MR presents virtual scene information in real-world scenes, and sets up an interactive feedback information loop between real scenes, virtual scenes and users. The third is that MR overlaps the reality and the virtual world. Mixed reality learning environment is a learning environment formed by integrating the real world and the virtual world (Xinyue Li, 2024). It can not only integrate virtual learning resources into the real teaching environment, but also integrate real learning resources into the virtual teaching environment. This feature combined with music education can make up for the real situation that traditional classrooms cannot provide, bring a more realistic user experience, as shown in Table 1.

Table 1: Three Different Perspectives on the Application of Virtual and Real in the Field of Music Education

The First Point of View	**Think of MR as Superimposing Real Things into Virtual Digital Space. Virtualize the Real Thing and Overlay it into the Virtual World, Where Real and Digital Objects Coexist in the New Environment.**
Second Point of View	Think of MR as superimposing virtual objects onto the real world.MR presents virtual scene information in real scenes, and builds an interactive feedback information loop between reality, virtual and user.
The Third Point of View	Think of MR as superimposing the real and virtual worlds on top of each other.A mixed reality learning environment is a learning environment in which the real world and the virtual world overlap and blend, integrating virtual learning resources into the real teaching environment and integrating real learning resources into the virtual teaching environment.

2.2. Deep Interaction

Interaction is mainly reflected in two aspects: one is the interaction between human and MR scenes. MR combines the advantages of VR and AR to realize the deep interaction between human and MR scenarios. Relying on sensing technology, users can perceive the real-time information feedback of picture change, vibration, voice in MR environment in the process of experience, and can interact with MR environment through touch, gesture, motion sense, language and other forms, thus forming a natural and effective information loop; the second is the interaction between people in MR environment (TAO, 2023). By analyzing the characteristics of good interaction between online game environment and virtual and reality. Xu Juhong conclude that MR learning environment can provide learners with richer and more effective means of communication and interaction (Köse & Güner-Yildiz, 2021). This feature, combined with music education, can be used for online learning, simulation, concrete teaching and other applications.

2.3. Space Otemporal Scene Coexistence

While realizing the deep integration of virtual and reality, MR can combine scenes in different time and space through computer technology to realize the coexistence of scenes in different space and time periods, and can also connect the coupled virtual images of learners in different locations in the same online virtual environment (Horsley, 2014). The combination of this feature with the field of music education will have great inspiration to distance guidance learning and online collaborative learning.

MR can not only stack digital objects into the real world, or virtualization real objects into the virtual environment, but it is not simply superimposed, but to achieve the deep fusion of virtual and real, thus forming an organic unity. The three features are applied and complement each other, as shown in Figure 2.

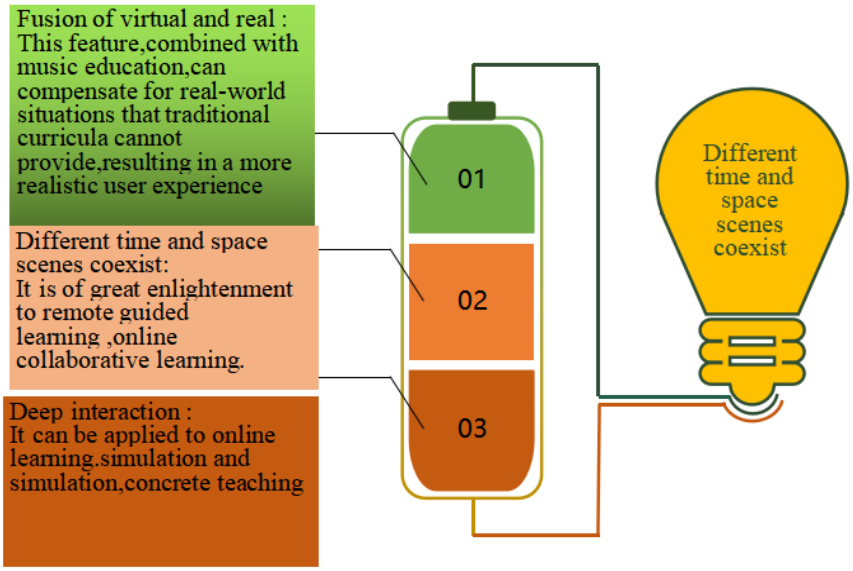

Figure 2: The Working Principle of Coexistence of Different Space-Time Scenes

3. THE APPLICATION STATUS OF MIXED REALITY IN VARIOUS FIELDS AND THE ELABORATION OF THE CONCEPT OF MUSIC EDUCATION

3.1.Mixed Reality Across Domains

Mixed reality has innovated and integrated the development of virtual reality and augmented reality, realizing the real-time coexistence and interaction of virtual objects and real objects in the same scene. Compared with virtual reality and augmented reality, mixed reality has significantly improved in immersion, interactivity and visual display, which can bring brand new visual feelings and interactive experiences to learners in the learning process. At present, the mixed reality has been initially applied in the field of formal education and informal education, educators and researchers combined with mixed reality conducted more extensive exploration and research, especially in the specific subject teaching, create online virtual classroom and medical care, architecture, aerospace and other fields of skills training has achieved good results. Based on the database, "mixed reality" was used as the key word for search, and the screened literature data was imported, data format transformation and

weight pre-processing were performed as shown in Figure 3.

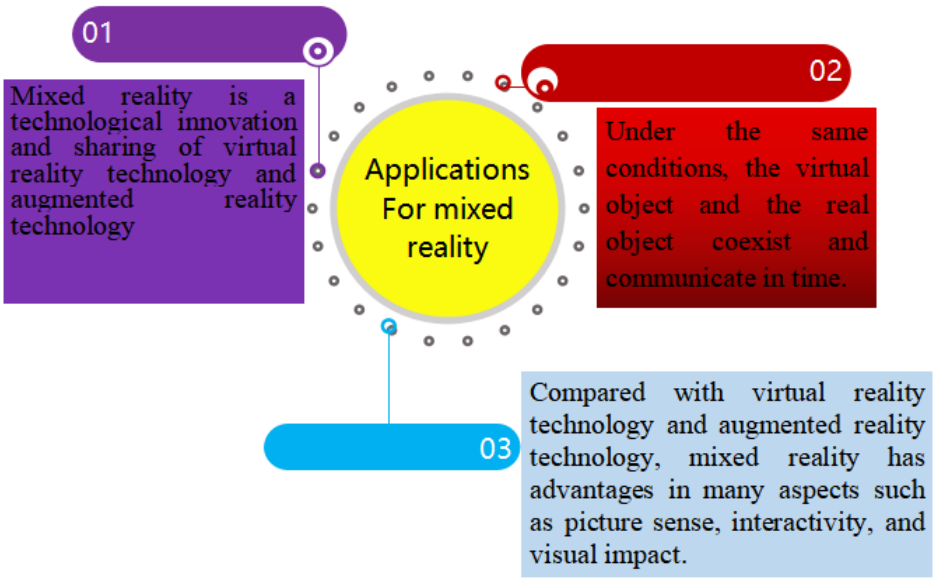

Figure 3: Mixed reality application theory diagram

3.2. Elaboration of the Music Education System

The purpose of music pedagogy is to cultivate and shape people, and to integrate it into the whole education process, so it can be regarded as a humanities and social discipline. At the same time, music pedagogy is obtained through the combination of pedagogy and musicology, so it is also an interdisciplinary subject, but as a new theoretical form, the original related theories of pedagogy and musicology have disappeared, and it has an updated theoretical and practical value. Music pedagogy can not only effectively reveal the direction, laws and characteristics of music education and teaching, but also clearly explain the theories and methods that music education and can be applied in the education of each subject. It is a subject for in-depth study of the process of music education (Pellas et al., 2020). In addition, music education has strong practicality, its theoretical system is summarized through the music education practice, Through practice, it can also to the music education practice effective guidance and specification, and avoid education activities appear spontaneity and blindness, significantly improve the scientific nature, rationality and effectiveness of music education activities (Wang & Stork, 2020). As the theoretical form and development of music education practice activities, it will become richer and more substantial in the process of the continuous development and improvement of music education practice. Mixed reality has become a research frontier in the field of music education at home and abroad, as shown in Figure 4.

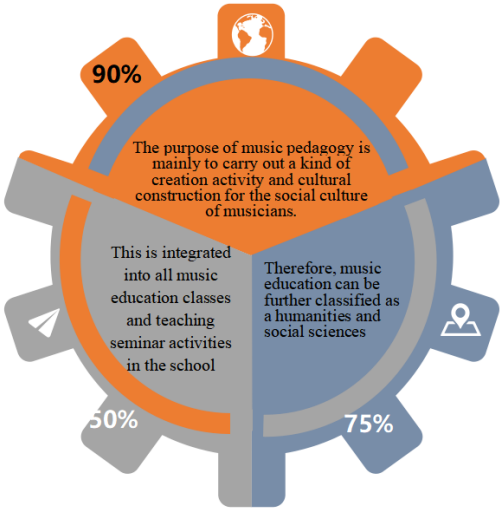

Figure 4: Theoretical diagram of music education

4. SPECIFIC APPLICATION OF MIXED REALITY IN MUSIC EDUCATION

According to the classification of hot keywords, the six aspects of the application of mixed reality in music education at home and abroad and the main views of relevant scholars are summarized. MR technology can create a seamless integration of reality and virtual interaction, and can realize the visual learning space of human interaction, human interaction and machine interaction, bringing opportunities for transforming traditional music education. By analyzing the relevant literature at home and abroad, we have summarized the six main aspects of MR application in music education: subject classroom teaching, STEAM music education, music education games, remote guidance and online virtual classroom, intangible cultural heritage music education, and field-specific skills training (Grant & Mairn, 2020). Under the background of MR technology education, the high integration of mixed reality technology and music education will help to break the bottleneck restricting the development of music education, so as to accelerate the innovation of music education talent training mode and the reform of teaching methods and means. First, the high integration of mixed reality technology and music education is an important measure to implement the policies related to the informatization of national music education, which meets the strategic needs of national innovation-driven development. Second, mixed reality technology can effectively solve the problem of insufficient teaching resources. Especially for large equipment, the price is relatively expensive and precise, it is impossible to have many opportunities for unconditional experimental

training. At present, mixed reality technology can greatly reduce school investment in facilities. Third, mixed reality technology can speed up the training of vocational skills personnel (Shahab et al., 2022). With the help of mixed reality technology, students can well carry out the learning of new knowledge and professional skills, greatly mobilize students' autonomy in learning, effectively shorten the training cycle, so as to achieve the training goal of professional talents. Fourth, the mixed reality technology can change the traditional teaching methods, and can conduct independent online learning. Mixed reality technology can subvert the traditional model in terms of teaching content and teaching methods, break the time-and space-time boundary of traditional classroom teaching, and learn anytime and anywhere, as shown in Figure 5.

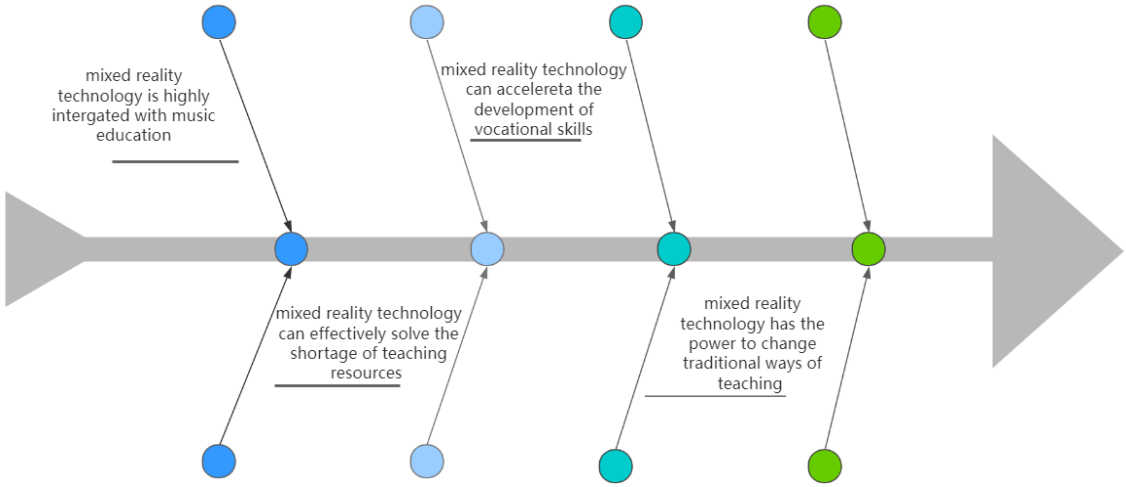

Figure 5: Four Viewpoints of the Changes that MR Technology has Brought to Music Education

4.1. Application in the Classroom Teaching of K-12 Subject

MR and the depth of the subject knowledge fusion can change the form of traditional teaching resources, compared with the traditional classroom "paper" teaching methods, MR technology support classroom teaching has better presence and immersion, letting students personally experience the object rules in geography class, biological body composition structure, three-dimensional geometric characteristics in mathematics class, and so on. At present, many teaching researchers and practitioners in China try to create a "mixed reality smart classroom" in the K-12 stage, believing that MR teaching has four advantages: intelligent teaching, synchronous classroom, teaching resource sharing and regional music education balance. Practice has proved that MR applied to subject teaching can bring students cannot feel experience in traditional classroom, although now MR applied in primary and secondary school classroom still has some problems, such

as expensive equipment price, teaching model resources are limited, these problems may increase students' cognitive load, etc., but with the continued development of technology, MR will be more widely used in K-12 music education, applied in geography, chemistry, physics, mathematics, language, sports and other more subject teaching.

Table 2: Application of mixed reality in classroom teaching of K-12 subjects

Advantages of MR in K-12 Subject Classroom Teaching	**It has Four Advantages: Intelligent Teaching, Interactive Teaching, Optimal Allocation and Sharing of Teaching Resources, and Balanced Regional Music Education.**
Disadvantages of MR in K-12 Subject Classroom Teaching	Although the current use of MR technology in music primary and secondary school classrooms may still have some other problems, such as expensive equipment, extremely limited teaching digital model resources, and rarely likely to greatly improve students' cognitive and psychological load.
Perspectives of MR in the K-12 Subject Classroom	In the next few years, MR technology will gradually be more widely and comprehensively used in K-12 music art and music education in primary and secondary schools, and used in geographical environment, analysis and chemistry, physics, mathematics experimental teaching, comprehensive language and oral expression ability, sports subject competition training and other related learning subjects or teaching courses.

4.2. Application in STEAM Music Education

STEAM music education emphasizes multidisciplinary integration and focuses on cultivating students' practical ability, problem-solving skills and innovation ability. Its teaching concept has penetrated into the teaching mode of primary and secondary schools at home and abroad, but there are still deficiencies in teachers, teaching resources and environment. Using the system analysis method to analyze the mechanism of MR technology applied to STEAM music education, it was proposed that applying MR to STEAM music education can effectively solve the problems of lack of curriculum resources, insufficient teachers and large risk factor in the teaching process. MR technology can also effectively alleviate the problem of insufficient STEAM music education teachers in schools through remote expert guidance. In the future, combining MR and STEAM distance music education will promote the change of music education.

4.3. Application in Music Education Games

In recent years, the reform of music education mode has increasingly

advocated the combination of music education and gameplay. Music education games skillfully integrate the scene, task, emotion and other game elements with knowledge, so as to express and convey knowledge and skills in a hidden way. At present, artificial intelligence, VR / AR / MR and voice intelligent interaction technologies and other technologies are widely used in entertainment games, and have been initially applied in music education games, such as serious games, autism training games, first aid knowledge and safety music education games. AR / MR technology uses sensing and visualization technology to integrate digital objects with real scenes, enabling students to feel highly immersive and timely interact (Carreon et al., 2020).

4.4. Application in Remote Guidance and Online Virtual Classroom

Traditional remote guidance is carried out through Internet audio or video, which cannot effectively guide the problems with high complexity or difficult to clearly express the causes. In the natural interaction interface supported by MR technology, the helper can conduct online operations such as demonstration and adding comments, and display them on the operator user interface projection through the local subsystem, so as to solve the problem more efficiently. MR technology has the characteristics of music education that can enable the objects in different time and space to coexist, which breaks the time and space limitation and couples the virtual images of learners in different regions to the same online virtual classroom environment through computer technology. Creating a "mixed-reality teaching environment" that allows all students and teachers involved in an online course to generate an avatar and coexist in the same MR learning environment can help generate a sense of community and improve online course engagement. Distance teaching using MR enables teachers to teach to all students, without repeated teaching and saving travel costs, while also saving the time and financial cost of music education. In addition, MR not only enables teachers and students and students to communicate and interact in learning content, but also can interact on emotional aspects.

4.5. Application in Music Education of Intangible Cultural Heritage

Intangible cultural heritage is usually preserved in the physical form of paper text, pictures or physical objects. There are some problems of lack of resources, acquisition difficulties and high loss in the inheritance of music education. Using MR technology for precious cultural relics

collection, processing, integration, storage, reproduction of digital processing, then through the cloud terminal extraction of digital virtual resources, can reduce the cost of intangible music education, at the same time, students can have a real experience of intangible heritage, such as experience of kunqu opera dress, opera stage virtual scene, etc. With the advent of the 5G era, digital museums have been constantly built and improved, and venue learning has been gradually advocated by the public, all of which provide learners with a wider range of learning space and resources.

4.6. Application in Specific Field Skills Training

MR system has also been widely used in music education and training projects, and it also has many common advantages: based on the general environment, many institutions focus on cultivating high-quality music talents, but the application of MR technology will carry out systematic ability training and improvement for all music educators, but because there are usually still some risk factors in the practice in the real combat environment system are too high, The cost is relatively large, or due to various other unexpected situations and restrictions, it is difficult to fully carry out learning and other factors, so that MR simulation technology is basically used in clinical treatment, industrial equipment production, aerospace, defense engineering and other fields (Bai, 2019).

5. MIXED REALITY TECHNOLOGY DEVELOPS IN MUSIC EDUCATION

The development of mixed reality technology is not only an important opportunity for the development of China's information industry, but also an important opportunity to further promote the promotion of modern music education. With the increasing amount of national investment in music education, mixed reality technology will certainly play an important role in promoting the development of music education and promoting employment and entrepreneurship with its powerful teaching function advantages and wide application scope. In view of this, we should further promote the integrated development of mixed reality technology and music education, and build a modern music education system. First, the application prospect of mixed reality technology in music education are broad. Because the mixed reality technology can create a similar environment to the real society, it can be widely used to create learning

scenarios to realize simulation training, and then solve the requirements of situational and natural interaction of learning media, so we should attach great importance to its broad application prospects in the field of music education from the thought and understanding. Second, strengthen school-enterprise cooperation and military-civilian integration, and actively introduce mixed reality technology resources. The enterprise has a good R & D team and technical resources, and can widely participate in the process of teaching methods innovation and training base construction. Strengthen school-enterprise cooperation, give full play to their respective technical advantages and talent advantages, and further enhance the ability of music education to adapt to the market and social needs. Third, strengthen the key factors of the deep integration of mixed reality technology and curriculum teaching system, and establish a high-quality and professional teachers as a bridge and link for the promotion and application of mixed reality technology. Actively introduce applied talents in the field of mixed reality technology and enrich music education. As shown in Figure6.

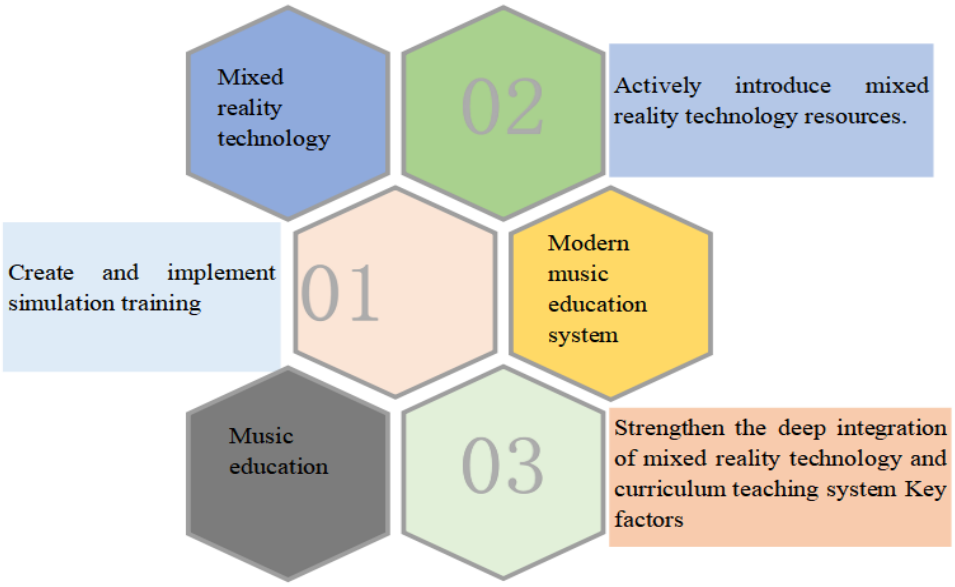

Figure 6: Three Viewpoints of Mixed Social Reality Technology in the Construction of Music Education System

6. COMPARATIVE STUDY OF VIRTUAL REALITY IN THE MUSIC EDUCATION SYSTEM AT HOME AND ABROAD

6.1. Part of the National Music Education, Development Review

Each country's music education has its typical localization characteristics, at the same time because of the economic development, national music education thought collision, presents a typical trend of

diversification, music education is so, the author through a lot of research and analysis, and combined with their own practice experience, will be several typical countries of music education development listed, hope to deepen the reform of music education system in China to provide certain theoretical support.

6.2. American Music Education

The United States is a colonial country, the development of its music education from the initial study of the traditional national music to the acceptance of northern and central European folk songs and black, indigenous songs and southeast European and East Asian songs, and later to strengthen the study of Latin American music, the diversification characteristics are obvious."Music education for the new generation of learners can no longer be seen as merely an extension of the intellectual vision, but as a social need, whose function is to form a balance of cross-cultural understanding with a direct impact on the future life of the international community."The United States not only sees music education as a way of human communication and national understanding, but also as a multicultural combination (Ma, 2019).

6.3. German Music Education

Germany is a country known for its rigor. They like to be meticulous and can not tolerate any mistakes. At the same time, they are extremely practical and can only spend energy on the "useful" things. The German this attitude also affected the music education thought, in the early 20th century and put forward the "with music and through music make human music education possible" task, the second German music education reform movement, to "muse music education" as the slogan, emphasizes the role of art music education, not only the music education as a course, and regard it as the overall music education.

6.4. Japanese Music Education

In contemporary Japan, music education originated after World War II, and Japan and China have similar cultural and regional backgrounds, so Japanese music education can provide a certain reference for Chinese music education. Japanese music education can be divided into professional music education and mass music education. Its music education presents the characteristics of national, public and private education, the three-dimensional music education structure is running

hand in hand, and the family, school, and society is concentric, creating music professionals. In just a few decades, Japan has completed the development path of music education in Britain and the United States. Thanks to the flexibility of its policies and the active participation of private enterprises and the public, this is also the biggest feature of Japanese music education, as shown in Table 3.

Table 3: The Development of Music Education in the three typical countries

Music Education in American Music	**The Development of Music Education has Changed from the Initial Study of Traditional Chinese Music to the Acceptance of Nordic and Central European Folk Songs, Black and Indigenous Songs, and Songs of Southeastern Europe and East Asia, and Later Strengthened the Study of Latin American Music.**
Music Education in Germany	Germany is a country known for its rigor, they like to be meticulous about everything, they can't tolerate a little mistake, and they are extremely practical, spending only energy on "useful" things.This attitude of the Germans also influenced their thinking on music education.
Music Education in Japan	Japanese contemporary music education originated after World War II, and Japan and China have similar cultural and regional backgrounds, so Japanese music education can provide some reference for Chinese music education.

7. DIFFERENCE ANALYSIS OF MUSIC EDUCATION AT HOME AND ABROAD

In music education in various countries, domestic emphasis is placed on indoctrination education, while foreign countries pay more attention to practice and creative thinking in the process of practice. Therefore, Chinese students often have amazing memory skills and a good foundation, which is why domestic students can achieve good results in music education. And music education in the United States requires students to participate, practice, create, many courses are arranged with case study and discussion time and students to carry out case analysis and presentation and other student-centered teaching activities, so that learning passive into active, can more stimulate students' own consciousness and thinking, the scope of domestic teaching is smaller, but the content is much deeper than foreign music teaching content, although the Western teaching range is wide, but in the eyes of Chinese students is just a dragonfly water. However, the so-called scope of teaching also varies from course to course. In addition, the

domestic classroom is dominated by teachers, because the rhythm of the general classroom is relatively tight, most of the time is the teacher on the stage for so-called cramming teaching. On the contrary, Western-taught classrooms are more relaxed, first of all, because Western teaching content is generally less difficult than in China. The most essential difference is that in the domestic teaching classroom, the protagonist is the teacher, while in the Western teaching classroom, the teacher and the student are equally important, and even the student will play a more dominant role in the classroom. On a large scale, there are certain cultural conflicts in countries around the world, and the development level of music education is not the same, so music education at home and abroad has great differences, especially in teaching goals, teaching strategies and teaching concepts. Through the investigation and analysis of music education in some overseas countries, the reasons for the lack of in-depth music education in various countries in the world are summarized as shown in Figure 7.

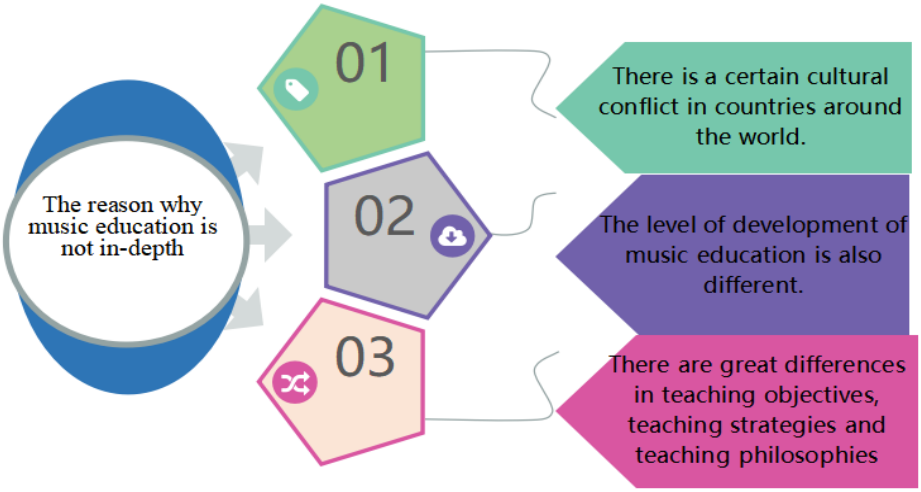

Figure 7: Causes of Disparities in Music Education Worldwide

7.1. The Music Education System is Not Perfect

Domestic music education in university expansion stage rapid expansion, basically every school has its own independent music department, the surface, China's music education has made great development, actually otherwise, because many schools set up music colleges is just to expand enrollment, it also leads to the overall level of music higher music education, music college students unemployment rate, at the same time, most of our music education is given priority to with public music education, basically no decent private institutions. However, in the west, the scale of music education is generally very small, and only a few professional schools will set up separate music departments. Many

music lovers learn music through some private music education institutions, which forms the two-way development of private and public, public and professional, as shown in Figure 8.

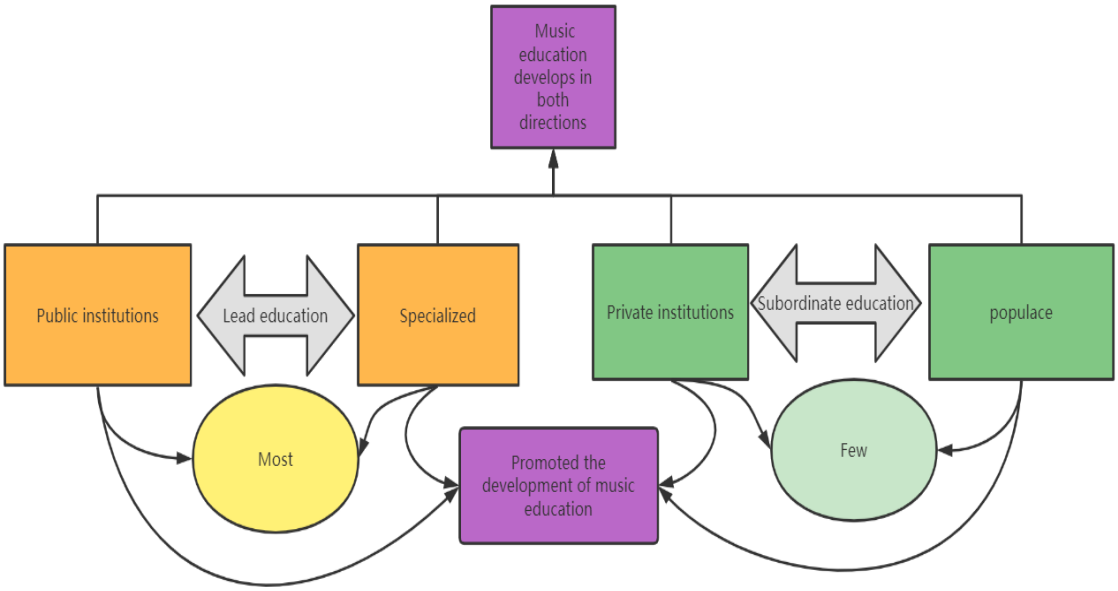

Figure 8: Two-Way Development Chart of Music Education

7.2. Different Priorities

In our country, the music education classroom teaching programming is more obvious, general music appreciation class is so: first, the teacher will play through multimedia music, let the students to listen attentively, after the teacher generally to introduce the background of music creation knowledge and the author himself experience, and then state the thoughts expressed in music, and then often teachers will ask students to talk about their own experience. This is the general teaching mode of public university music appreciation courses, and some professional courses will also mention the thoughts and feelings of the works while teaching techniques, so that students can have feelings to learn. Western music classroom is completely different, they rarely mention things other than music, let alone let students feel life through music, and their classroom teaching content is mainly to let students actively participate in the appreciation of music, so that they are subtly influenced.

7.3. Different Ways of Music Education

Domestic music classrooms rely a lot on multimedia. Most teachers use multimedia channels to show some teaching demonstrations. Most of their experience in lesson preparation is also in making exquisite courseware,

collecting necessary materials and other aspects, while ignoring the training of their own basic music skills. In foreign countries, most teachers are not used to borrow too much multimedia means, but generally, teaching demonstration is generally completed, so they need to spend a lot of time to improve their music playing ability, but also pay attention to expanding their knowledge in music related disciplines, so as to have more flexible control of classroom rhythm (Kounlaxay & Kim, 2020).

7.4. Different Teaching Results

It is precisely because of the different focus of music classroom teaching and music education methods at home and abroad that the final teaching effect is also very different. For example, Chinese students generally pay attention to the background knowledge of music itself and the grasp of life philosophy, and know more about music knowledge, but if they are asked to play, they are often unsatisfactory (Joo & Jeong, 2020). Western students' knowledge of music itself generally know not much, but they are good at playing, even some of the university set up in public music courses need students to learn to play part of the music, this situation is similar to the training of our country, in other words, westerners are practical, pay attention to the cultivation of practical ability.

7.5. Suggestions on Teaching Reform under the Differences of Music Education at Home and Abroad

With the deepening of education reform, the development of our country's music education has made great progress, the teaching quality improved obviously, students' music literacy also gradually improve, but relative to some music education system more mature western countries still have a big gap, so it is necessary to analyze the music education system at home and abroad, find the advantages of foreign music education system, and combined with the basic national conditions of our country for the necessary reform of music education system optimization. The differences in music teaching at home and abroad have become more and more obvious, and this difference has also exposed some disadvantages of domestic music education, especially in the practicality of teaching, and actively learning from foreign teaching methods can happen to make up for this defect. The author combines his own teaching practice and understanding and puts forward some reform strategies for domestic music teaching, hoping to improve the problems in music teaching in China, and cultivate more professional skills and talents for the development of music

career. As shown in Figure 9.

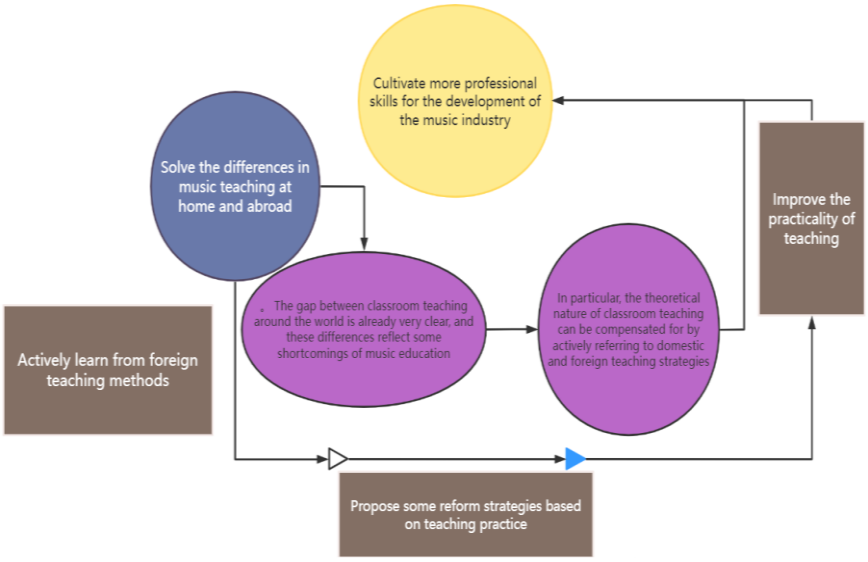

Figure 9: Suggestions for Teaching Reform under the Difference of Music Education at Home and Abroad

8. CONCLUSION

Most of the related research of domestic and foreign scholars on MR technology involves concepts, characteristics, technical principles, equipment, application status in different fields, existing problems and future prospects. At present, MR and music education field, with its virtual fusion, deep interaction and can realize different space object coexistence music education characteristics, in subject classroom teaching, STEAM music education, music education games, remote guidance and online virtual classroom, intangible cultural heritage music education and specific field skills training shows obvious technical advantages, and has the infinite potential development application space. From the field of music education overall, MR for subject classroom teaching, music education games and STEAM music education value are more significant, so as a new era of music education researchers, we not only need to study new technology, more actively in the application of new technology practice, such as developing wisdom teaching resources, MR wisdom classroom, the construction of virtual online learning environment, efforts to apply new technology to bring innovative changes for music education.

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