


Research Article

Innovation of Digital Multimedia VR Technology in Music Education Curriculum in Colleges and Universities

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The art of music is the art of hearing, helping humans to establish good aesthetic interests. Music education is not only an important means of quality education for students, but also an important way to cultivate musical talents in colleges and universities. It inspires students' lofty ideals, cultivates their sentiments, and improves their aesthetic ability and cultural quality. The emergence of digital multimedia VR technology has made the traditional music education in colleges and universities seem a bit high and low. In the new era, the exploration of VR technology in music education is very challenging. It is especially important to explore the innovation of music education mode in colleges and universities in the era of digital multimedia VR technology. The goal of this paper is to explore the innovation of music curriculum in colleges and universities in the era of digital multimedia VR technology. According to the relevant research materials at home and abroad, drawing on and absorbing the new education and teaching ideas and new teaching achievements, adopting the methods of questionnaire, interview, and classroom observation, and taking the implementation of digital multimedia VR art course as a sample, the experimental results show that up to 72.2% of the classmates say that the implementation of digital multimedia VR art course is effective, and their music teachers occasionally use digital multimedia VR teaching facilities. Equipment is closed to teach digital multimedia VR courses in music class, and the data is on the rise. Through the survey on the current situation of the implementation of the digital multimedia VR teaching in colleges, it provides a more detailed basis for the reform of the music curriculum in colleges and makes the digital multimedia VR teaching tend to improve in the implementation of music in colleges.

1. Introduction

The progress of human thought and the convenience of life are inseparable from the changes brought about by the rapid development of science and technology. The emergence of the digital multimedia VR age indicates that people have faster access to information, better intelligent devices for life, more advanced methods for training the next generation of advanced ideas, and better artistic quality for training the next generation of advanced ideas are important components of people's all-round development. To train college classmates to better adapt to society and build society, we need to pay more attention to this link [1]. The digital multimedia VR represented by the Internet has become an important way for college classmates to study, work, and

live, and has brought new opportunities and challenges to the cultivation of talents in colleges. It is an important reform measure in the field of higher education at the end of last century to carry out the cultural teaching quality in colleges and further to promote the teaching quality in an all-round way, which has a far-reaching impact on the cultivation of talents in colleges in China [2]. The development of an art starts with education, and the development of music education affects the development of the art education system of the whole society. Strengthening the art quality of college classmates and improving the aesthetic taste and art quality of college classmates are increasingly significant for promoting the all-round development of college classmates. The rapid, convenient, diverse, and massive information of digital multimedia VR bring new

vitality to the art teaching quality of college classmates. The situational teaching under VR technology simulates the real situational experience, with a strong sense of immersion and substitution [3, 4]. In the Context Creation under VR technology, students can go deep into the context. With the movement of students' user location, the computer can send out the picture through calculation. The real context experience makes students have a desire for learning, and makes students want to learn and love learning from the inside out. Actively explore the art teaching quality of College classmates in the age of digital multimedia VR, actively use the effective carrier of digital multimedia VR, pursue advantages and avoid disadvantages, and make art have been innovated and developed to carry out teaching quality for college classmates, improve their IQ and EQ, make them become socialists with Chinese characteristics, and build excellent talents with both ability and moral integrity and all-round development [5]. Music is a greatly significant way to strengthen the aesthetic consciousness and level of modern people. More and more classmates begin to enter the art hall and feel the charm of music. Colleges are the cradle of music professionals. At present, there are many professional music schools in China, and most comprehensive universities have also established music schools [6]. Music education is in full swing all over the country. However, as the starting point of adult classmates, colleges are the intermediary between schools and society, and it is a key in the development and future of classmates [7]. The training plan and implementation of music talents in colleges have irreplaceable significance for the development of each student, so the construction of music education curriculum system in colleges is particularly important. Music education is not only an important means of teaching quality for classmates, but also an important means of cultivating musicians in colleges [8, 9]. It stimulates classmates' lofty ideals, cultivates classmates' sentiment, and improves classmates' aesthetic ability and cultural quality [10, 11].

Art education encompasses four major arts categories: music, dance, theater, and visual arts. Music is inextricably linked to the other three art categories and plays a leading, facilitating, and complementary role to the other three with its unique characteristics. Jagodzinski discussed the challenges facing art education. Art courses around the world have begun to change to adapt to new technological realities. Some people think that in our "controlled" society, the capitalist economic system determines the direction of education [12]. At the same time, under the guidance of self philosophy of new liberalism, art educators are facing the problem of how to deal with new media technology and incorporate it into art plans. They tried to prove that this direction should recognize the "emotional turn" within the media and grasp different directions in cooperation. But the practicality is not strong [13]. Grace Reid found through retrospective research that science media education is one of the most important teaching contents in and out of science classroom. They then set a research agenda that will help make science media education a key content area in both formal and informal science learning environments. In particular, they have identified research methods that we can

better understand: (1) the limitations in the current practice of science media education; (2) what should science media education look like in the future; (3) how to overcome the obstacles in the implementation of new and improved science media education [14]. Authentic approaches to learning aim to immerse students in contexts that promote real-life application of knowledge and provide meaningful learning experiences that go beyond abstract teaching in the classroom. In a grounded theory study of music teaching practices in high-achieving schools by R White, 50 teachers from 23 schools in New South Wales (NSW), Australia, were asked to describe how they teach their high school students and the music environments they curate in their schools. Through the study of interview data, authentic learning was shown to have a unique place in the classroom teaching of music programs to high-achieving high school students in NSW. This is demonstrated by the use of comprehensive inquiry-based and student-centered learning tasks such as video journals, the use of professional resources and expertise, and collaborative learning in authentic settings inside and outside the classroom [15]. The above studies provide a detailed analysis of the application of new media technologies and art education. It is undeniable that these studies have greatly contributed to the development of the corresponding fields. We can learn a lot of lessons from the methods and data analysis. However, there are relatively few studies in the field of digital multimedia virtual reality technologies for music art, and it is necessary to fully apply these algorithms to the research in this field.

Through the Internet and library, this paper has consulted the majority of relevant materials, summarized the existing research results, and combed out the relevant theoretical framework, in order to provide a good theoretical reserve for the smooth development of this study; on the other hand, using the methods of observation, interview, sampling, and questionnaire survey, the implementation of the digital multimedia VR teaching of music in colleges is analyzed, and at the same time, the theory is put forward. On the full application of teaching practice, the data and results of research and investigation are analyzed, conclusions are drawn, and suggestions and measures are put forward to promote and further effectively implement the art digital multimedia VR teaching in Colleges. The innovation of this study lies in: the current school-based curriculum development tends to be theoretical, the limitations of teaching content, the single teaching means, the lack of research results, the lack of practice, and other issues. From the reality of classmates, parents, and teachers, develop curriculum to fill the gap in this field. The use of virtual reality technology for interactive experiences in music education classrooms promotes a multiform approach to teaching and learning.

2. Proposed Method

2.1. *The Development of Traditional College Music Education.*

In terms of curriculum, most colleges and universities have set up relevant music courses, but most music courses are elective courses, with only one class per week and relatively short class time. Generally speaking, the elective courses are

mainly large courses with a large number of students, and each student has different cultural levels, so the teaching does not play a targeted role and cannot fundamentally improve the students' interest in music. Although colleges and universities offer music courses such as instrument playing, music theory, music appreciation, choral conducting, etc., these courses are not connected to each other and stay in the initial stage.

In terms of teaching materials, the music teaching materials used in colleges are basically selected by the school music teachers themselves, and the teaching content is also determined by each teacher themselves, so the teaching content is too arbitrary. Most of the teaching materials are based on the western music history, while the introduction of Chinese music history and Chinese national music is relatively small. Especially in the content of Chinese opera and folk music, there is only one chapter to make college classmates who do not understand Chinese folk music not interested in their own traditional music.

In terms of teaching methods, most of the current music courses in colleges are too single, mainly reflected in the limitations of the music teaching content. For example, in the classroom, most teachers teach some boring theoretical knowledge, while ignoring the creativity and practicality of classmates' learning. The digital multimedia VR age puts forward higher requirements for teachers. In order to keep pace with the times in the future teaching, teachers are required to keep learning and upgrading. First of all, teachers should understand the popular content of contemporary college classmates, such as popular pop music, pop dance, and light music; secondly, bring the popular content that college classmates love into music teaching, and set up some popular content, such as pop music singing and pop dance teaching courses. The most important thing for the development of music education is the change and development of educators' ideology. Music education and teaching work should keep pace with the times, look at new things with new eyes, and solve new problems with new methods.

2.2. Combination of Digital Multimedia VR Technology and Music Education Classroom. Virtual reality is the combination of virtual and reality with each other. Theoretically, virtual reality (VR) is a computer simulation system that allows the creation and experience of a virtual world, using computers to generate a simulated environment into which the user is immersed. Virtual reality has three characteristics: perception. VR should have all the perception that human beings have. For the sense of existence, VR should have the feeling of immersing the experiencer; interactivity. VR should have the function of interactive experience between human and machine. Virtual reality technology emphasizes "immersion," which makes people seem to be in the scene. With the changing times, VR plays a very important role in the research of digital space art [16, 17]. Virtual reality has all the perceptual functions that humans have, such as hearing, vision, touch, taste, smell, and other perceptual systems; finally, it has a superb simulation system that truly realizes human-computer interaction so that people can operate at

will and get the most realistic feedback from the environment during the operation process.

Using virtual reality technology for interactive experience in music education classroom is mainly an experience between the experiencer and the imaginary space. It shows a "sense of immersion." The so-called "sense of immersion" expresses the experiencer's feeling experience in the space. For experimenters, a good interactive experience can bring them sensory enjoyment and endless fun. The monotonous life, through the connection of virtual reality technology, has a new understanding of space. Although space art and experimenters are not the same expression subject, they make it connected and become a whole through the operation of virtual technology, and even realize the dialogue function of human-computer interaction. The experience of digital space art is realized through VR, which makes the experimenter fully communicate and contact with the machine.

Digital multimedia VR technology uses network technology, digital technology and other technical means, mobile phones, and other computing mobile terminals to provide users with a wide range of information content and entertainment services [4, 18]. With the progress of society and science and technology, the traditional way of information communication has not been able to meet the needs of modern people. It has many characteristics, such as wide range of communication, fast update, and can provide people with personalized needs. Nowadays, digital multimedia VR technology has become an indispensable part of modern people's life, study, and work, and can be applied in various fields [19].

2.3. Innovation of College Music Education Mode in the Digital Multimedia VR Age

2.3.1. Innovation of Teacher-Student Relationship. In one and a half hours of class, teachers teach independently and classmates learn knowledge passively, which leads to the decline of classmates' learning interest and poor learning effect. In recent years, it has become a key issue to optimize the music teaching mode in colleges. With the rise and development of digital multimedia VR, music education in colleges has brought infinite possibilities. First of all, classmates have changed from passive learning to active learning. Combining digital multimedia virtual reality technology in the classroom, the experiential interaction between the experiencer and the imaginary space helps students to learn better. VR technology has changed the traditional learning mode, and the learning mode of teaching in fun is conducive to the achievement of three-dimensional goals. Through the creation of situational simulation objects, students can participate in the situational simulation of real life to a certain extent, and through students' practice, they can be true. We are combining knowledge with action and using practice to test whether knowledge is used correctly. Secondly, it increases the relationship between teachers and classmates, and pays more attention to the conversation and communication between teachers and classmates. In the classroom, it is no longer just

a boring explanation, but a space for conversation between teachers and classmates.

2.3.2. Innovation of Teaching Content. In the content of music teaching in colleges, because there are too many contents related to the history of Chinese and western music and music theory, and the development of digital multimedia VR technology, it is difficult and boring for non music majors to learn, which provides the necessary conditions for the innovation of teaching content, breaks the impression of “reading the course book” and “reading the PPT” in the traditional curriculum, along with the widespread use of singing software, microblog and we-chat, which is “song” Music teaching content such as singing bar providing new possibilities. Teachers can use this software to teach classmates to sing and practice songs. Finally, the recorded songs will be output to microblog or we-chat related public platforms for display, to improve classmates’ interest in learning music.

2.3.3. Innovation of Teaching Methods and Expansion of Teaching Resources. The emergence of digital multimedia VR technology provides more resources for music teaching. First, in the current classroom, teachers no longer need to sing and play music in person. As long as teachers download excellent music works, they can let classmates enjoy music performances at the international level, which is conducive to the cultivation of classmates’ music appreciation ability and music literacy. Secondly, we can use digital multimedia VR technology to combine music with other media and create a new form of study and conversation for College classmates. For example, the establishment of the elective music group provides a platform for classmates with music hobbies to communicate. Teachers recommend relevant music review articles or music sharing in groups every day so that music can go out of class and into classmates’ life.

2.4. Deficiency of Music Education in Local Colleges

2.4.1. Curriculum Does Not Meet the Actual Needs. At present, the curriculum of music education in local colleges is not completely consistent with the actual needs, which cannot reflect the advantages and characteristics of music education. The major of music education in local colleges generally consists of three parts: the public course of basic knowledge of music, the basic course of theoretical content of music education, and the specialized course of professional skills of music. The curriculum setting of these three parts is similar to that of professional music colleges, but the nature of music education personnel training is different from that of professional music personnel, and the same course cannot highlight the difference between the two. In the curriculum of music education, local colleges do not connect music education with other related subjects and lack of comprehensive quality of teachers. For example, in local normal universities, classmates majoring in music education should not only master the relevant professional knowledge

of music education but also master the basic teaching theories of pedagogy and educational psychology. The major of music education is not to train excellent music talents but to train excellent music teachers for primary and secondary schools. Therefore, the local colleges should reasonably allocate the existing educational resources and strive to cultivate excellent music teachers who study comprehensively.

2.4.2. Teachers Do Not Pay Attention to Classroom Teaching. The goal of music education is to provide qualified teachers for the society, but at present, the teachers of music education major in local colleges are influenced by many factors of the society. They put a lot of energy into extracurricular performance or extracurricular teaching activities, which to a certain extent affects the development of the society. In addition to the quality of classroom teaching, some music education professional teachers are not clear about the training objectives of music education talents. They often regard music education classmates as professional performance talents to improve their professional skills but pay little attention to the cultivation and improvement of their comprehensive quality, which is not conducive to the development of local music education.

The fundamental reason for the curriculum not meeting the actual needs and teachers not paying attention to classroom teaching is that society and schools do not pay enough attention to the development of music education and do not give enough attention and research efforts.

2.5. The Way of Curriculum Reform in Local Colleges in the Digital Multimedia VR Age

2.5.1. Using Digital Multimedia VR to Promote Curriculum Integration. The existing music education curriculum only pays attention to the development of a single discipline, neglects the integration with other related disciplines, and has obvious boundaries in the discipline. The same music teacher cannot carry out cooperative teaching, the same student’s knowledge is completely separated, the professional and nonprofessional courses cannot be integrated, and the classmates lack aesthetic ability. This is the main problem during music education in local colleges. In the digital multimedia VR age, all is media. Since the emergence of digital multimedia VR, many problems that cannot be solved in time can be solved through the Internet and various software. Digital multimedia VR makes people’s life more convenient. In the same network environment, everyone can share the joys and sorrows of knowledge and life. The introduction of digital multimedia VR teaching methods into music education in local colleges will greatly improve the current situation of music education. At present, in the major of music education, music history, music, harmony, music theory, Solfeggio, and other courses are lack of integration, and there is no mutual connection between the courses. If there is digital multimedia VR participation, it will greatly promote the integration of the curriculum, not only in professional courses and nonprofessional courses, but also can make full use of digital

multimedia VR, to achieve cross professional learning and effective integration between various majors.

2.5.2. Promote the Multiform Development of Teaching Mode. The simplification of teaching mode is also a major problem in the current music education curriculum of local colleges and universities. The existing teaching mode is mainly classroom teaching, and the classroom content is the process of dialogue between teachers and classmates, the process of constantly exploring and digging new knowledge, and the bridge of communication between teachers and classmates. Mainly, the teacher speaks at the podium and the students listen at their seats. The effect of speaking and listening depends on a test paper, which is not only tedious but also inefficient. Using digital multimedia VR can change this situation. Currently, web-based teaching has formed a new teaching mode. Teachers can interact with students in front of the screen through webcasting and explain the course anytime and anywhere. The beneficiary group is more general and there is no restriction on the time and place of teaching; they can start teaching at any time. In addition, developing online lessons is a way to develop music appreciation lessons through online music resources, giving students enough time to listen to different styles of music with an assignment and then share the experience with their classmates and teachers in class. This way of teaching saves classroom time, weakens the teacher's dominant position, enables students to participate in classroom teaching, and greatly improves teaching efficiency within the limited educational time. In addition, VR and the popular webcast in the digital multimedia era also provide students with opportunities to practice. Students can make full use of the Internet to show their talents, especially for music education majors, who can practice with various live streaming and singing software to enrich their practical experience and skills during normal times. At the same time, they can also use digital multimedia VR to provide not only limited to music but also a comprehensive quality training and improvement. Therefore, local universities should pay full attention to the application of digital multimedia VR in music education so that digital multimedia VR can contribute to the training of qualified music teachers.

2.5.3. Take Full Advantage of Internet to Spread Local Culture. The cultivation of music education talents in local colleges should not be limited to the study of general music theory and music skills. Local colleges should highlight local characteristics, take local music culture as the leading role, and cultivate music talents. Local music culture needs professional music talents to excavate and spread. The talents of music education in local colleges should be based on the local music culture, enrich the local music culture while improving their professional skills, and spread it through the network. Through the dissemination of local music culture, classmates majoring in music education can use the network to carry out popular science activities of local music culture knowledge and incorporate them into the curriculum assessment. On the one hand, it can promote the

dissemination of music and let the public pay attention to music culture in different regions. On the other hand, in the dissemination practice, classmates majoring in music education can establish different links to exercise their own teaching water ping, during conversation with netizens, can further tap the local music culture.

3. Experiments

3.1. Experimental Dataset. This study's main goal is to explore the cognitive level of digital multimedia VR art and college music teachers, find out the existing problems, and analyze the causes of these problems. On this basis, it demonstrates the feasibility and necessity of integrating digital multimedia VR art into the development of school-based music curriculum, which paves the way for the development of school-based music curriculum.

This questionnaire survey is mainly distributed in city a, which is located in the Central Plains, and can represent the lower level of art education in China. It has certain backwardness in education idea and teaching method, but it has strong pertinence to the development of local school-based curriculum and really realizes the teaching idea of "from classmates to classmates." There are 10 questions in the questionnaire, all of which are objective choice questions.

Before the course learning, this study investigates the needs of learners, aiming to determine the real needs of learners according to the actual needs of learners so as to stimulate learners' interest in teaching design. This survey adopts the method of questionnaire. Through the reliability and validity test, the study needs of the experimental class learners were investigated. A total of 24 questionnaires were sent out, 24 were recovered, the recovery rate was 100%, and the effective rate was 100%. In order to maintain the consistency between the pretest and the post test, the subjects in this survey are learners' needs, and the subjects in the post test are the same group of classmates. Therefore, the number of questionnaires is small and targeted.

3.2. Basic Information of Research Object. The subjects were teachers and classmates in city a, 20 teachers in city a, 20 teachers in questionnaire survey, all aged 25–45, with master's degree or above. They are first-class and second-class titles, respectively. The basic information of the subjects is the first content of the questionnaire. The basic information can be filled in without thinking, which can help the subjects quickly enter the status of filling in the questionnaire. The basic information of the respondents mainly includes gender, grade, major, and family location. Differences in learning background may lead to differences in research results. Because it is the same major and the same class, there is no difference between the grades and majors of the subjects. The subjects of this survey are classmates of grade 19 (second year) of the school of education. In terms of gender, the proportion of men and women was 37% and 63%, respectively, about 4 : 6, which basically kept the gender balance of subjects. 58% of families were in cities, 17% in villages, and 25% in rural areas. Families are distributed in

towns and villages, more than half of them are in cities, obviously more than towns and villages.

3.3. Research Object's Digital Multimedia VR Learning. In the second part of the questionnaire, it mainly investigates the basic situation of digital multimedia VR learning. It mainly includes digital multimedia VR learning experience, digital multimedia VR learning time per week, digital multimedia VR learning location, using digital multimedia technology to obtain learning resources, the impact of digital multimedia VR on teaching methods, and the initiative of digital multimedia VR independent learning. The main purpose of this part of question setting is to understand the basic situation of digital multimedia VR learning of the research object through the questionnaire survey, judge the proportion of digital multimedia VR learning in the current learning life of the research object, whether digital multimedia VR learning is feasible, and whether the research object is willing to accept digital multimedia VR learning.

4. Discussion

4.1. Analysis of Teachers' Arrangement of Digital Multimedia VR Teaching Content. 50% of music teachers will not strictly follow the content written in the book but will reorganize the content of the textbook in term of the concrete situation of the classmates and the actual application of the textbook. The remaining music teachers will also have their own views and adjust the content of the textbook to a certain extent according to the specific characteristics of the classmates, as shown in Figure 1.

In the various stages of the development and deepening of the new art curriculum reform, many music teachers' teaching concepts have gradually changed from the old teaching concepts to the new teaching concepts. In the digital multimedia VR teaching, music teachers also change the previous teaching methods into the teaching process that keeps pace with the times according to the characteristics of the digital multimedia VR teaching. In our past music classes, music teachers may focus on classmates' basic music knowledge and music skills, while music teachers often play the role of the leader and speaker, mostly using conventional education ways. In many teachers' classroom teaching, many teachers concentrate on the results of classmates' knowledge, but for classmates' basic music knowledge and music skills, the process and method of classmates' acquiring knowledge lack attention. Therefore, there are some bad teaching methods such as cramming. In terms of teaching methods, College music teachers basically use multimedia means such as computer and network to carry out teaching work so as to obtain a very rich teaching materials, and produce enough attraction for classmates.

4.2. Implementation of Digital Multimedia VR Teaching

4.2.1. Implementation of Digital Multimedia VR Classroom Teaching. According to the survey data, 42.9% of music teachers pay more attention to the combination of VR theory

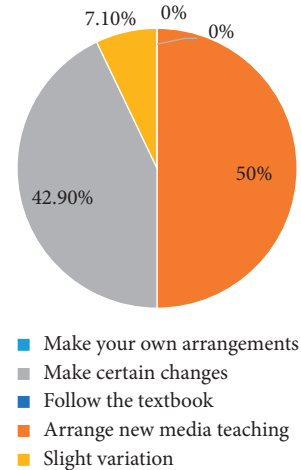


FIGURE 1: Arranging the teaching content of digital multimedia VR.

and practice in the teaching process, and only 7.2% of music teachers realize that they cannot meet this standard in the teaching activities, as shown in Figure 2.

4.2.2. Training of Practical Ability of Digital Multimedia VR. As shown in Table 1, for developing classmates' practical skills, 62.7% and 28.6% of music teachers think that they are more absorbed in the cultivation of classmates' practical skills. Teachers and curriculum have become the basic guarantee for the smooth progress of music curriculum reform and the effective implementation of music digital multimedia VR teaching. The implementation of college music curriculum is not only influenced by teachers' teaching ability and time arrangement, but also has a lot to do with whether the teaching equipment is complete. The number and class hours of college music curriculum, that is, within one academic year, the first grade classmates arrange one class hour of music curriculum every week, and the second grade classmates arrange one class hour every semester or the whole academic year every week. After investigation and statistics, it is not difficult to find out that all schools can offer art courses in the first year of college, usually once a week. Due to the fact that sophomores are not far away from graduation and heavy burden of practice, the arrangement of music courses for sophomores in colleges is quite different. But generally speaking, compared with before the curriculum reform, the digital multimedia VR teaching effect of College Music Course under the new curriculum is better, and music course is seldom occupied by other disciplines. In terms of improving the level of teachers, according to the statistical results, it is not difficult to find that at present, there are basically one or two professional music teachers in colleges, generally two music teachers in urban schools, and one music teacher in rural areas. These teachers are relatively professional, and their ability to use digital multimedia VR technology is gradually enhanced. Although the digital multimedia VR full-time music teachers are not enough in reality compared with the teachers' course selection and arrangement required by the Ministry of education, compared with the weak music teachers in the

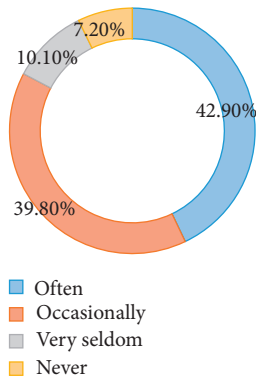


FIGURE 2: During the implementation of digital multimedia VR course, teachers and classmates combine learning with hands-on practice.

TABLE 1: Training classmates’ practical ability of art digital multimedia VR in the specific teaching process.

Pay great attention to	28.6%
Pay more attention to	62.7%
Commonly	8.7%
Less emphasis	0%
Pay no attention to	0%

past, it is not difficult to find that the current music teachers have strong working ability.

4.3. Digital Multimedia VR Teaching Is More Advanced Than Traditional Teaching

4.3.1. Use of Digital Multimedia VR-Related Teaching Equipment. In the survey data, we found that up to 72.2% of classmates explained that their music teachers occasionally use digital multimedia VR teaching equipment to teach digital multimedia VR-related courses in music class, and this data is on the rise. However, 13.4 classmates said that teachers rarely use digital multimedia VR teaching equipment and equipment to teach classmates digital multimedia VR-related courses, and 6.1% of classmates have never seen music teachers use digital multimedia VR equipment to teach related digital multimedia VR courses in music class for various reasons and conditions, as shown in Figure 3.

4.3.2. Utilization of Digital Multimedia VR Informatization Curriculum Resources. In the survey data, we are happy to find that most music teachers are able to take full advantage of the network and other wonderful resources to collect music digital multimedia VR education resources. At the same time, many music teachers can communicate with digital multimedia VR music teachers in other schools or provinces and cities and exchange their own student works and digital multimedia VR teaching results and experience flow. 30.8% of music teachers think that this kind of activity can be developed as a normal digital multimedia VR teaching activity, as shown in Figure 4.

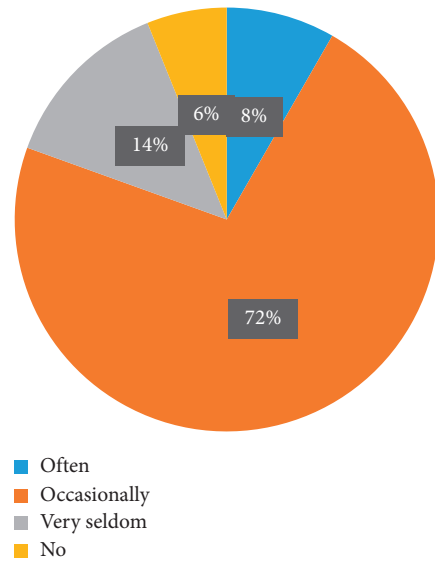


FIGURE 3: In music class, the situation of music teaching by teachers through digital multimedia VR equipment.

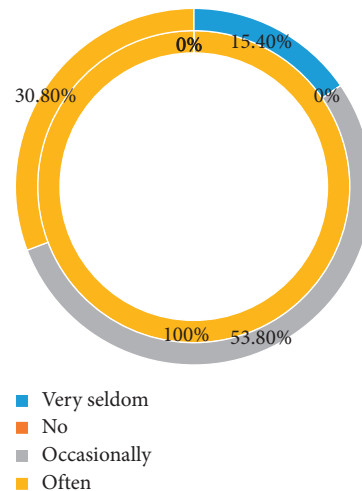


FIGURE 4: Teachers’ digital multimedia VR teaching on the Internet.

Teaching method is a way chosen by teachers to complete teaching tasks, achieve teaching objectives, promote conversation between teachers and classmates, and improve classmates’ learning ability. In the past, in the teaching process of digital multimedia VR in colleges, in the music digital multimedia VR classroom, the main teaching methods were teachers’ oral teaching and heart to heart teaching, classmates were constantly indoctrinated, the conversation between teachers and classmates was less, it was difficult to cultivate classmates’ interest in learning digital multimedia VR, and it was also difficult to improve classmates’ ability and thinking level of self-learning digital multimedia VR. Therefore, the implementation of new music media Teaching can implement cooperative, autonomous, and research-based learning strategies, and also change the bad habits of passive acceptance of classmates in music learning in the past so that classmates can actively

participate in music learning, which is different from the previous teaching methods. Some music teachers are not limited any longer to the usual teaching methods for many years. They are trying to integrate the teaching methods advocated by the new curriculum and concentrate on the cultivation of classmates' subjective initiative. In the learning process, classmates can not only gain their own experience but also master the learning methods of music. During teaching, teachers are reversing the trend of direct indoctrination. The post teaching method is to guide classmates to ask more questions and discuss more, so that they can give full play to their imagination. It is to guide and organize classmates to have group discussion and cooperative communication on specific contents with the continuous improvement of teaching strategies. As a result, classmates are more and more interested in learning. The research-based learning strategy and cooperative autonomous learning strategy advocated by the new curriculum gradually appear in the digital multimedia VR teaching in colleges.

5. Conclusions

According to the relevant research materials, this study draws on and adopts the new education and teaching ideas and new teaching achievements, adopts the methods of questionnaire survey, interview, and classroom observation, and takes the implementation of digital multimedia VR art course in city a as an example to make the effective implementation of digital multimedia VR art course. In this paper, while investigating the actual classroom, we investigate the situation of classmates and teachers, trying to find out the factors affecting the implementation of digital multimedia VR art courses and the relationship between the implementation of digital multimedia VR art courses and various influencing factors, as well as the investigation of the implementation of digital multimedia VR art courses, and put forward our own opinions or suggestions for the effective implementation of the new curriculum reform and the implementation of digital multimedia VR art courses in colleges and universities. Although the development of digital multimedia VR teaching in colleges has achieved some results, there are still many deficiencies. For example, the curriculum resources of art digital multimedia VR are insufficient, the implementation progress of art digital multimedia VR curriculum cannot keep up with the pace of the times, there is a gap between the implementation and development of art digital multimedia VR teaching, the operation level of teachers' digital multimedia VR is low, and the regional conditions are greatly different. Through the analysis of the causes of the problems, the corresponding countermeasures are put forward from different angles. For these shortcomings, experts are needed to keep abreast of the artistic development of the times, to update the curriculum resources and to improve the course content.

Through the investigation and study on the current circumstance of the implementation of music digital multimedia VR teaching, this research gives a more detailed basis for the reform of music curriculum in colleges, which helps us to understand the reasons and influencing factors

for the smooth implementation of digital multimedia VR art curriculum in art digital multimedia VR teaching, and timely revise and adjust the implementation strategies of art digital multimedia VR teaching curriculum in colleges so as to make digital multimedia VR sports in college music. The implementation of the system tends to be improved.

Data Availability

No data were used to support this study.

Conflicts of Interest

The author declares that there are no conflicts of interest regarding the publication of this article.

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