Research Article

Application of Internet Information Technology in College Music Education Teaching System

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The development of society has higher and higher requirements on the quality of talents, and the demand for talents with comprehensive literacy continues to rise. Using music education as a means to continuously improve the music aesthetic quality of the new generation of young people and establish music aesthetic concepts is an important entry point to improve the quality of the whole people. But the current colleges and universities basically still focus on the traditional education and teaching methods, largely ignoring the importance of music education. In order to improve the comprehensive quality of college students, this paper introduces Internet information technology into the study of music system. The experimental results show that the research on the application of Internet information technology in the music system of colleges and universities can save time and management costs to a great extent and increase the efficiency of educational resources by 3.58%. At the same time, it can implement dynamic music evaluation, reasonably arrange students’ daily music training plans, improve students’ comprehensive quality and music literacy, and integrate music education into students’ lives, so as to increase the effect of music education to a great extent. Besides after the Internet information technology is applied to the music teaching system, the system can be linked with the network platform and resources, which greatly enriched teaching materials for music and information technology.

1. Introduction

With the continuous progress of Internet information technology, the educational methods of music are constantly changing, and the requirements of lifelong teaching, the requirement of lifelong education makes the traditional music teaching platform face huge challenges. Therefore, there is an urgent need to conduct research on the music information education and teaching system and Internet technology. Although the research results of the former two are very rich at present, few people have studied them, which makes it impossible to provide an important theoretical basis for the development of the music teaching system in colleges and universities. It is precisely because of this that the research on the application of Internet information technology in the music education and teaching system in colleges and universities is of great importance.

As an important artistic way of expressing emotion, music is of great significance for improving students’ artistic literacy and comprehensive quality. Especially under the influence of the new educational concept, university education should not only enhance the practical ability and material ability of students to enter the society but also improve the comprehensive quality of students. In order to promote the all-round development of students, many people have carried out research on this. Sang believed that school music teaching should take aesthetic education as the core, gradually take correct art and music aesthetics as the learning path, and apply the knowledge learned to life and life [1]. On the basis of cloud computing technology, Zhang and Min broke the confinement of the traditional sports model and create an independent learning plan according to the basic principles of physical education teaching [2]. Gaobin et al. built a teaching evaluation system based on artificial intelligence fuzzy algorithm [3]. Since traditional teaching models and teaching concepts are considered unsuitable for the current environment, Juhe and Zhibin introduced the importance and application of multimedia computer-
assisted teaching in the development of physical education [4]. Zhang described the characteristics of leisure sports and described the research-based teaching reform of college sports and leisure sports [5]. Artes et al. used the educational teaching system to study the relationship between research performance and teaching quality in the context of the Spanish university system [6]. Xie proposed an optimization method for sports evaluation system and intelligent suggestion module design [7]. From this point of view, the research results of music teaching system have been very extensive, but few people have introduced Internet information technology into their research. In order to promote the development of music teaching, this paper combines the two to carry out research.

The application of the Internet greatly facilitates the dissemination of information and makes people’s life and work more efficient. But the same is true for bad aspects, such as bad information. In order to give full play to the advantages of Internet information technology, many people in Shenyang have carried out research on this. Due to the limited range of motion of the robotic arms and the need to move the robot during operation, Braga used a da Vinci robot in the low anterior resection, using all three arms for the splenic flexure and pelvis [8]. Sun et al. mainly explored the nonartificial information terminal security technology based on the mobile network and analyzed and compared the current mainstream encryption algorithms of the mobile Internet [9]. Pan conducted advanced pattern analysis of the dissemination of national traditional movements based on information technology [10]. In order to reveal what kind of education about the use of safe Internet is provided in schools, Kaban reviewed and analyzed the textbooks of information technology and software courses in primary and secondary schools using the literature analysis method [11]. To investigate the impact of information technology and technological capabilities on Internet entrepreneurship and to compare the magnitude of their impact, Ayough et al. proposed a new model to explain the relationship between Internet entrepreneurship and information technology [12]. As young people who are almost constantly connected are vulnerable to pathological addiction to the Internet, Silajdi and Dudi explored the use of the Internet, social networks, and mobile phones by young people [13]. Since the whole idea and purpose of Internet information technology is to overturn the existing state or situation, Bajrami et al. believed that one of the most common ways of using Internet information technology is to transmit relevant information through advertisements of different products [14]. Although many people have researched the Internet information technology, few people have applied it to the music system for research. In order to use the Internet information technology more widely, this paper applies it to the system and conducts in-depth research.

The development of Internet information technology and its own advantages have made it constantly applied in different places and various education and teaching. But from the perspective of the current development status of Internet information technology, this technology has not been applied to the music education and teaching system of colleges and universities too much. As a result, it is difficult for the current college music system to borrow information technology to perfect and improve itself, and it is also difficult to meet the current society’s music requirements for the system. Therefore, this paper conducts an in-depth study on the use of Internet information technology in the music education and teaching system in colleges and universities.

2. Specific Music Education System

2.1. Functional Modules of College Music Education System.
The music education and teaching system studied in this paper is realized based on the technology of Internet informatization [15]. Since the system uses multimedia transmission technology and is developed in combination with the transmission protocol given to the network, it can provide a variety of services for college music education. In addition, the music education system studied in this paper is a functional module designed according to actual needs, and its specific functional modules are shown in Figure 1.

It can be seen from Figure 1 that the basic functional structure of the music education and teaching system in colleges and universities is divided into two parts, one part is the front end of the system, and the other part is the back end of the system. The front desk of the music education and teaching system in colleges and universities can only allow users who have registered an account on the platform to log in and use, but this user does not limit the user identity. In other words, the user logging in and using the music teaching system can be a music teacher, music students, or even nonmusic teachers or students. Only after entering the correct account and password can the user log in to the system, that is, the university music education system allows the user to use the front-end service. The front-end service objects of the system are mainly teachers and students, and its functions include five parts: virtual school management, music recognition, live broadcast, stage rehearsal, and personal design information management of basic nursing. The functions of the system background mainly include three functions: system management, user management, and multimedia information management. The functional design of the system foreground and system background can maintain the operation and use of the system in many aspects.

2.2. User Business Task Exchange Module. To do an in-depth study of the music education system, it is necessary to determine its main functional requirements first. And the research on the user’s business transaction module is the key to determine the function of the music education system [16]. Through background investigation of the online music education system, this paper roughly divides users into three categories: administrators, students, and teachers, and the business exchanges among them are first shown in the virtual classroom. The basic business exchange of its users is shown in Figure 2.

As can be seen from Figure 2, the three types of users have very close business exchanges in the virtual classroom.
of the music education and teaching system in colleges and universities. As far as the administrator is concerned, the activities of the program administrator mainly include the daily maintenance of the system. In addition, administrators also need to perform basic maintenance tasks on the music teaching system. As far as music teachers are concerned, as an important symbol in the music education and teaching system, teachers can not only manage educational activities in the program but also provide relevant functional content of the corresponding educational activities. When teachers conduct a music lesson, they need to fill in the relevant content and need to organize, integrate, delete, review, and recreate the virtual classrooms needed for educational work. As far as students are concerned, students are the main service target of the entire music education system. Students can conduct autonomous learning, autonomous testing, online training, and other activities in the music system studied in this paper. Among them, students can also view the materials released by the teacher and can repeat the courses that have been played. At the same time, it has completed the basic training activities arranged by the teacher in each class and conduct relevant tests. Of course, only after passing the exam can the study of this section be completed. In addition, the system will provide students with some practical exercises to help students improve their weaknesses through self-directed education.

2.3. Virtual Classroom Function Module. Virtual classrooms are an important part of college music programs and the preferred place for students to study music [17]. For
students, virtual school management can provide them with functions such as leaving the classroom, applying to join the classroom, and viewing the displayed classroom information. For teachers, the functions that can be used are creating virtual classrooms, configuring virtual classrooms, etc. In order to have a specific understanding of the music system, this paper explores and describes the work of creating a virtual classroom and the activities of students entering and leaving the classroom. Its virtual classroom management function is shown in Figure 3.

It can be seen from Figure 3 that students must first log in when using the virtual classroom. Only when the student’s account and password are entered correctly, the system will allow students to access. After entering the system, students should select a suitable virtual classroom and then apply for permission to join, and teachers and supervisors will make plans for the use of virtual classrooms. Each virtual classroom has a teacher, because the virtual classroom is the responsibility of the teacher, but in the background of the system, the administrator has the right to block some classrooms that cannot be used normally. After opening a virtual classroom, teacher users not only need to fill in the corresponding virtual classroom information but also prepare relevant class materials. After the virtual classroom application is completed, the administrator will review it, and after the application is approved, the administrator will announce the class so that students can choose educational activities. Classroom management functions include creating and deleting classrooms and adjusting classroom volume, while course functions are selected and used by classroom users. The student review process means that once the virtual classroom starts, students can freely choose music courses. After that, the user’s teacher will check the student’s profile information and give permission to enter the classroom. Only after the student has obtained the access permission can they enter the classroom. Classroom entry and exit services are used by students who are responsible for student requests to enter and exit the virtual classroom. For the virtual classroom viewing function, students who have not selected a virtual classroom, or students who have already registered for a classroom, can use it to view virtual classroom information.

2.4. Performance Appreciation Module. The performance appreciation module is shared by teachers and students, and its content takes into account the basic online music playback function of the system studied in this paper [18]. In the college music education teaching management system studied in this paper, the performance appreciation module is a module that is used more frequently. This module can be provided to all users of the music system studied in this paper, so that more people can receive music education. The specific performance function module is shown in Figure 4.

As can be seen from Figure 4, the performance playback module provides services such as music storage, playlists, playlists, and playlists. Users can edit playlists to select their favorite music from a massive data set and play it at any time. In addition, the users of the system studied in this paper can realize the collection of music library and the online play of music. There are three main play commands: random play, single loop, and sequential play. Through the performance and playback module, users can better participate in music learning while improving user experience, so as to deepen the interaction between students and teachers. Since the user group of the system studied in this paper is all users who want to learn music, the only task performed by the program administrator is to add, delete, and edit tracks in the music system. At the same time, it allows student users to filter out the tracks they want in a custom list. In addition, the program can also provide electronic music playback, listening, sharing, downloading, and other functions for all users of the system. The music maintenance service is only used and performed by system administrators, and the main task is to perform basic tasks on songs, such as adding, deleting, checking and changing tracks, and updating or updating data. Created list is a playlist developed for system users according to user needs. Music playback is the most important and basic function in the system studied in this paper, and the upload management
function is a function that can provide music collection for all users of the system.

2.5. Live Classroom Function Module. The live classroom function module is one of the most used modules in the current music education system [19]. Because it can avoid the limitations of traditional performance, realize one-to-one service between teachers and students, and promote interaction and communication between teachers and students, students’ musical literacy is cultivated, so that their overall quality is improved. In order to make use of the features of the live classroom function module at a deeper level, this paper conducts a detailed study on it, and its specific function module is shown in Figure 5.

As can be seen from Figure 5, the functional modules of the live classroom mainly include functions such as publishing live broadcasts, online live broadcasts, live broadcast recording, answering questions, watching live broadcasts, and asking questions. Among them, the online live broadcast also includes three small functions: video adjustment, audio adjustment, and progress control. Before teachers can schedule live classes, they must first send a live video request to the administrator. After receiving the application sent by the teacher, the administrator will schedule the application for live broadcast in a unified manner, so as to prevent the overlapping of the time of the live broadcast class. After the final review is completed, the administrator will publish the live class on the announcement page and notify the relevant students to attend the class within the specified time frame. In the online live broadcast module, in addition to the basic needs of providing live broadcast services for teachers, it should also have the operation functions of each user. Using these services, users can realize the function of adjusting live video. The live recording service is provided by the system, which can automatically record the teacher’s live broadcast during the live broadcast. Then the administrator can also organize the recorded videos and upload them online for use by some students who are not compatible with live videos. In addition, during the live broadcast, teachers can also discuss by leaving messages or talking with other students in the class to increase the effectiveness of problem solving and enhance the communication between teachers and students.

3. Application Algorithms of Internet Information Technology

3.1. Information Gain. This method can use the amount of information that the attribute can bring to the customized system to measure the importance of the attribute [20], and its calculation formula is:

\[ H(x) = -\sum_{i=1}^{n} \log p(x_i). \]  

(1)

3.2. Mutual Information. Mutual information measures the relative degrees of freedom between certain categories of information [21], and its calculation formula is:

\[ I(t, c) = \log \frac{AN}{(A + C)(A + B)}. \]  

(2)

Among them, \( A \) is the number of documents with feature \( t \) in category \( c \), \( B \) is the number of documents with feature \( t \) in other categories, \( C \) is the number of documents in category \( c \) without feature \( t \), and \( N \) is the total number of documents in the training set.

3.3. Chi-Square Statistics. The chi-square statistic can be used to test the independence or determine the association between categorical variables. If the value associated with the chi-square statistic is less than a given level, it is determined that the two variables are not independent of each other. Its calculation formula is:

\[ x^2 = \frac{N(AC - BC)^2}{(A + C)(B + C)(A + B)}. \]  

(3)

3.4. Boolean Weights. Boolean weight is a simple weight calculation method, also called binary weight. Its calculation formula is:

\[ w_{ij} = \begin{cases} 1, & tf_{ij} > 0 \\ 0, & tf_{ij} \leq 0 \end{cases}. \]  

(4)
3.5. Characteristic Proportion. Characteristic proportion is:

\[ p_{ij} = \frac{t_{ij}}{\sum_{m=1}^{m} t_{ij}}. \] (5)

3.6. Information Entropy. Information entropy is:

\[ e_j = -k \sum_{n=1}^{n} p_{ij}, \]

\[ k = \frac{1}{\ln m}. \] (6)

3.7. Feature Entropy Weight. Feature entropy weight is:

\[ w_j = \frac{1 - e_j}{\sum_{j=1}^{j} (1 - e_j)}. \] (7)

3.8. Comprehensive Weights. Comprehensive weights are:

\[ \beta_j = \frac{\alpha_i w_i}{\sum_{i=1}^{m} \alpha_i w_i}. \] (8)

3.9. Word Frequency. Word frequency is:

\[ t_{f_{ij}} = \frac{n_{ij}}{\sum_{k} n_{kj}}. \] (9)

3.10. Reverse File Frequency. Reverse file frequency is:

\[ d_{f_i} = \log \frac{|D|}{|j \in d_{ij}|}. \] (10)

Among them, \(|D|\) is the total number of data in the database.

3.11. Correlation Probability. Correlation probability is:

\[ p(d_i, d_q) = \sum \log \frac{p_{ij}(1 - q_i)}{q_i(1 - p_i)}. \] (11)

Among them, \(f\) is the total number of training texts, and \(r\) is the number of relevant documents in the centralized data query.

3.12. Posterior probability. Posterior probability is:

\[ P(C_i|X) = \frac{P(C_i)P(X|C_i)}{P(X)}. \] (12)

Among them, \(P(X)\) is a constant for all classes.

3.13. Structural Semantic Entropy. Structural semantic entropy is:

\[ E(S) = -\sum_{i=1}^{m} \log(p_i). \] (13)

\(p_i\) is the probability of any leaf node.

3.14. Structure Information Entropy. Structure information entropy is:

\[ H(X) = -\sum_{i=1}^{n} p(x_i). \] (14)

3.15. Sum of Hyperlinks. Sum of hyperlinks is:

\[ R(u)c \sum \frac{R(v)}{N_v}. \] (15)

Among them, \(R(u)\) is the hyperlink value of web page \(u\).

3.16. Date Weight. Date weight is:

\[ W_t = \frac{C_T D}{T}. \] (16)

Among them, \(W_t\) is the date weight of the web page \(t\), \(C\) is the search time of the search, and \(D\) is a constant.

3.17. Data Mining Algorithms. Data mining algorithms are:

\[ E(X) = (1 - c) + c \sum_{i=1}^{n} E(T_i). \] (17)

3.18. Correlation Function. Correlation function is:

\[ p_q(j) = \frac{R_q(j)}{\sum_{k \in W} R_q(k)}. \] (18)

\(W\) is a collection of web pages for the entire network.

3.19. Similarity. Similarity is:

\[ \text{sim}(Q, D) = \frac{\sum(U_{iq}, U_{ij})}{\sqrt{\left(\sum U_{iq}^2\right) \times \left(\sum U_{ij}^2\right)}}. \] (19)

4. Music Teaching System

4.1. Questionnaire Method. Questionnaire query analysis is a process in which researchers design the content of surveys and research into questions, then receive answers in the form of questionnaires, and organize and record documents. This article allows students from different schools to experience different music teaching systems, and then asks students and teachers to fill out many relevant questions in the form of questionnaires, so as to obtain the corresponding
Di music education systems are named system 1, system 2, system 3, and system 4, respectively. The different performances of these two systems is lower than that of the other three systems, indicating that these two systems have few local characteristics and are less inclusive of music. In terms of originality, the scores of system 1, system 4, and system 5 are all above 80 points, indicating that the innovation degree of these three systems is relatively low, and they are more inclined to the traditional model. In terms of democracy, the score value of system 2 is higher than that of system 3, indicating that system 2 can allow users to make changes and suggestions within a relatively small range. On the whole, the performance of System 5 is relatively high, but it still needs to be improved in terms of development.

As can be seen from Figure 6, the music education system is mainly compared from six aspects: orientation, development, openness, locality, originality, and democracy. In terms of orientation, system 1 and system 3 scored in the 50-60 range. Compared with other systems, the orientation of these two systems is relatively low, indicating that these two systems cannot provide orientation services for students well. In terms of development, the score value of system 4 is about 2 points higher than that of system 5, indicating that the development of system 4 is better than that of system 5. In terms of openness, the scores of system 2, system 4, and system 5 are higher than those of the other two systems, indicating that these three systems not only provide teaching services for music majors but also provide services for music and nonmusic majors. In terms of locality, the scores of system 2 and system 3 are at least 20 points lower than the other three systems, indicating that these two systems have few local characteristics and are less inclusive of music. In terms of originality, the scores of system 1, system 4, and system 5 are all above 80 points, indicating that the innovation degree of these three systems is relatively low, and they are more inclined to the traditional model. In terms of democracy, the score value of system 2 is higher than that of system 3, indicating that system 2 can allow users to make changes and suggestions within a relatively small range. On the whole, the performance of System 5 is relatively high, but it still needs to be improved in terms of development.

5. Experiment of Music Teaching System

5.1. Comparative Analysis of Performance between Different Music Systems. Different colleges and universities use different music systems, and these different music education and teaching systems also have different performances, which also determines that different music systems have their own usage restrictions. In order to conduct a detailed study of the application of information technology in the music education system, this paper compares and analyzes the performance of different music systems; the specific data is shown in Figure 6.

As can be seen from Figure 6, the music education system is mainly compared from six aspects: orientation, development, openness, locality, originality, and democracy. In terms of orientation, system 1 and system 3 scored in the 50-60 range. Compared with other systems, the orientation of these two systems is relatively low, indicating that these two systems cannot provide orientation services for students well. In terms of development, the score value of system 4 is about 2 points higher than that of system 5, indicating that the development of system 4 is better than that of system 5. In terms of openness, the scores of system 2, system 4, and system 5 are higher than those of the other two systems, indicating that these three systems not only provide teaching services for music majors but also provide services for music and nonmusic majors. In terms of locality, the scores of system 2 and system 3 are at least 20 points lower than the other three systems, indicating that these two systems have few local characteristics and are less inclusive of music. In terms of originality, the scores of system 1, system 4, and system 5 are all above 80 points, indicating that the innovation degree of these three systems is relatively low, and they are more inclined to the traditional model. In terms of democracy, the score value of system 2 is higher than that of system 3, indicating that system 2 can allow users to make changes and suggestions within a relatively small range. On the whole, the performance of System 5 is relatively high, but it still needs to be improved in terms of development.

5.2. Comparison of Advantages between Different Systems. Different music education and teaching systems can be used by different colleges and universities, which shows that these music education and teaching systems have unusual advantages. In order to continuously learn from and develop the music teaching system under the Internet information technology, this paper compares and analyzes the advantages of different systems, so as to understand the difference between the music education and teaching system studied in this paper and other systems. Its specific data is shown in Figure 7.

As can be seen from Figure 7, this paper mainly compares and analyzes the advantages between different systems from six aspects: accuracy, stability, compatibility, scalability, code reuse, and convenience. In terms of accuracy, the score values of system 1 and system 3 only fluctuate around 50 points, indicating that the accuracy of the recommended music teaching of these two systems is lower than that of the other three systems. In terms of stability, the scores of system 2, system 4, and system 5 are relatively high compared to the other two systems, indicating that these three systems are not prone to problems during the use of music majors in colleges and universities and can ensure their stable development. In terms of compatibility, the scores of system 3 and
system 5 are between 80 and 90 points, which is about 20 points higher than that of system 1 and system 3, indicating that these two systems can allow multiple types of music at the same time. In terms of scalability, the scores of System 3 and system 5 are relatively high compared to other music education and teaching systems, indicating that these two systems can continuously expand music types during use. In terms of code reusability and convenience, the scores of system 1 and system 2 are the lowest among all systems, indicating that these two systems have relatively low practical significance and are not suitable for large-scale use. On the whole, system 5 has outstanding advantages in all education systems.

5.3. Students’ Evaluation of Different Systems. The music education system is used by music teachers to teach students about music; the main body of the music teaching system is the students. Therefore, in order to continuously promote the continuous development of the music education and teaching system in colleges and universities, it is necessary to understand the students’ evaluation of the use of the system. In order to conduct a detailed study of the college music system under the information technology, the students’ evaluation of different systems was first studied. The specific data is shown in Figure 8.

It can be seen from Figure 8 that students who use the music education teaching system in colleges and universities evaluate different systems from six aspects: coverage, educational level, learning effect, satisfaction, interactivity, and fluency. In terms of coverage, the scores of system 2 and system 4 are the lowest among all systems, with an average of only about 55 points, indicating that the coverage of students in these two systems is relatively low and cannot be popularized to students outside the music major. In terms of educational level, the scores of system 1, system 3, and system 5 are much higher than the other two systems, indicating that these three systems include different levels of music education to a large extent. In terms of learning effect, the scores of system 3 and system 4 are relatively low, only about 60 points, indicating that students can obtain less learning results in this system. In terms of satisfaction, the scores of system 1 and system 5 are relatively high, indicating that students’ satisfaction with these two systems is relatively high. In terms of interactivity, the scores of system 2 and system 3 are at least about 30 points lower than the other three systems, indicating that students do not have in-depth communication with teachers in these two systems. In terms of fluency, the scores of system 1, system 4, and system 5 are relatively high among all educational systems, indicating that students are difficult to encounter the phenomenon of
5.4. The Teaching Effect of Different Systems on Different Music. The most fundamental purpose of the music education system is to create and use the different types of music knowledge to teach. However, because teachers have different teaching effects on different music teaching systems in different music teaching systems, in this paper, the purpose of researching the teaching effect of different systems on different music is to continuously improve and develop the music system in colleges and universities studied in this paper. The specific data are shown in Figure 9.

As can be seen from Figure 9, the types of music mainly include six aspects: nursery rhymes, rap, opera, folk songs, and instrumental music. From the perspective of nursery rhymes, the scores of system 2 and system 3 are relatively low, indicating that nursery rhyme music is not suitable for teaching in these two systems. In terms of rap, the scores of system 1, system 4, and system 5 are relatively high among all teaching systems, indicating that rap-type music is more suitable for teaching in these three systems. In terms of opera, the scores of system 2, system 4, and system 5 are relatively high compared to other systems, indicating that the teaching effect of opera-type music is better in these three systems. In terms of folk songs, the scores of system 1 and system 3 are the lowest among all systems, indicating that folk songs are not suitable for teaching in these two systems. In terms of instrumental music, the score value of system 4 is higher than that of system 5, indicating that the teaching effect of instrumental music on system 4 is better than that of system 5. On the whole, various types of music can obtain good teaching effect on the system 5 and enhance the effect of music teaching.

5.5. Learning Efficiency of Different Students in Different Systems. Judging whether a music education system is excellent depends on whether the system provides good services for teachers and students. In this paper, the purpose of in-depth research on the learning efficiency of different students in different systems is to judge whether it is correct to apply Internet information technology to college education and teaching systems. The specific data is shown in Figure 10.

As can be seen from Figure 10, this paper names students from different schools, including professional music students and nonmajor students, as class A and class B, respectively. In school 1, the learning efficiency of class A students in system 1 and system 2 is the lowest, only about half of the normal learning efficiency, indicating that these two systems are not suitable for class A students to study music; the learning efficiency of class B students in system...
3, system 4, and system 5 is the highest among all systems, indicating that students can gain a lot of music knowledge in these three systems. In school 2, the learning efficiency of class A students and class B students in system 1 and system 2 is the lowest, only about 52%. The learning efficiency of these two types of students in system 3, system 4, and system 5 is the highest among all music teaching systems, indicating that students in school 2 are more suitable for using system 3, system 4, and system 5 for music learning. In school 3, the learning efficiency of class A and class B students in system 2 and system 3 is relatively low compared to other teaching systems, indicating that the A and B students of this school are more suitable for learning music in the system 1, system 4, and system 5. In school 4, the learning effect of A and B students in system 1 is much higher than that of system 2 and system 3, but far lower than the learning efficiency in system 4 and system 5, indicating that system 1 can enhance the learning effect of students in this school to a certain extent. On the whole, the learning efficiency of different students in different colleges and universities in system 5 is much higher than that of other music education systems, indicating that system 5 is a system that is more in line with the current needs of college music education.

6. Experiment Results of Music Teaching System

With the continuous improvement of humanistic quality, music education has become the focus of attention. The music education system has also become an important tool for music teaching in most schools in recent years, but there are still various problems in the music education and teaching system used by most colleges and universities at present. The purpose of this paper is to study the use of information technology in the music education system in detail to avoid these problems and make the development of music education to a higher level.

(1) The performance of different music systems is compared and analyzed. The research results show that the two systems are system 1 and system 3, which cannot provide guidance services for students very well. System 4 is well developed and has great prospects for development. The openness score of system 2, system 4, and system 5 is the highest among all music teaching systems and can provide services for all students who want to learn music. Both system 2 and system 3 lack multiple types of music in the service for students. System 1, system 4, and system 5 are relatively low in originality and are easily eliminated during use. On the whole, the performance of system 5 is relatively high in all aspects except for development.

(2) The advantages between different music system systems are compared and analyzed. The results of the study show that the accuracy of system 1 and system 3 is relatively low, because their score values only fluctuate around 50 points. The stability of system 2, system 4 and system 5 is relatively high among all systems, which can ensure the stable development of school music education. The compatibility of system 3 and system 5 is relatively high, allowing multiple types of music to be taught simultaneously. System 3 and system 5 have high scalability evaluation and can continue to develop to meet the school's music requirements. On the whole, the advantages of system 5 are very prominent.

(3) Students’ evaluations of different systems are researched and analyzed. The research results show that in terms of coverage, system 2 and system 4 cannot be popularized to students outside the music major, and the coverage rate of students is relatively low. System 1, system 3, and system 5 include different levels of music education to a large extent, so that students of all levels can learn music knowledge in these systems. The learning outcomes that students get in system 3 and system 4 are less, because the grades of these two systems are relatively low. Students cannot get in-depth communication with teachers in the two systems of system 2 and system 3. On the whole, the students’ evaluation of system 5 is the highest, indicating that system 5 has great use value.

(4) The teaching effect of different systems on different music was researched and analyzed. The research results show that the system 2 and system 3 are not suitable for the teaching of nursery rhyme type music; the students are more suitable for the rap-type music learning in system 1, system 4, and system 5. In system 2 and system 3, the effect of opera teaching is relatively poor; when students learn opera and folk music in system 1 and system 3, the learning effect is relatively poor. On the whole, various types of music can obtain good teaching effect on the system 5.

(5) A study was conducted on the learning efficiency of different students in different systems. The results of the study show that school 1, system 1, and system 2 are not very suitable for A and B students to study music. In school 2, A and B students are more suitable to use system 3, system 4, and system 5 to study music. In school 3, students of class A and class B are more suitable for learning music in system 1, system 4, and system 5. In school 4, A and B students can improve their learning efficiency in system 1. Overall, system 5 is a system suitable for music education in all schools.

7. Conclusion

The music education system is a system used by most schools for music education, but the use of music systems in different schools is different. However, the current music education systems used by various schools have their own
defects, which are not suitable for the long-term and stable use of music education. The purpose of this paper to introduce information technology into the music education system is to solve this problem. In addition, the relevant knowledge and functional technology of the online education system are mainly used in the system research, and the management of the relevant knowledge and work technology of the online network teaching system is understood. In order to obtain specific data, this paper investigates many teaching-related institutions and conducts a questionnaire survey on some teachers and students in different universities to determine the main research content and then go to the library to learn relevant knowledge and obtain materials on the Internet. Then, by going to the library to learn relevant knowledge and obtaining materials on the Internet, finally, there is a deep understanding of the current school teaching system, especially the online music teaching system. The music education system under information technology is a system that combines the needs of the current school music curriculum. Its systematic research is beneficial to enhance the interaction between teachers and students and can also provide various functions and services for network teaching. Of course, there are still some shortcomings in this article, which will be improved and developed continuously in the future development process.

Data Availability

No data were used to support this study.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

References