

# Design of Traditional Drama Multimedia Network Teaching System

Jing Wu<sup>1,\*</sup>

<sup>1</sup>Experimental Teaching Center of Art, Sichuan Academy of Fine Arts, Chongqing 401331, China

\*Corresponding author. Email: 326340920@qq.com

## ABSTRACT

Driven by the development of multimedia technology, this paper discusses the expansion of traditional drama teaching in the Internet environment to solve the teaching problems in the normal teaching environment, such as the limitation of time and space, and the difficulty in optimizing the allocation and open sharing of learning resources. According to the characteristics of traditional drama and the trend of the development of Internet teaching, this paper makes a positioning analysis and demand analysis on the design of the system, so as to have a comprehensive and accurate grasp of the functional requirements of the whole system. Thus, four functional modules of user information management, teaching resource management, interaction and sharing, testing and evaluation are developed. According to the results of this preliminary requirements analysis, this paper will combine the characteristics of the different categories of users and network learning's basic principles of system design and design method, and put forward the function of each module in order to build a collection of traditional drama teaching resource material, task, method, information, and results of evaluation for the integration of complete network teaching environment.

**Keywords:** traditional drama, network teaching, teaching system, design

## I. INTRODUCTION

As a treasure of Chinese traditional culture, Chinese drama has a long history and has always maintained its unique charm and artistic value. With the development of network media technology, drama image resources are more and more abundant, but the development and utilization of drama resources in network teaching is not high. Traditional drama for multimedia network teaching system is limited by physical time and space and physical teaching aid traditional drama teaching means of innovation. The system will give full play to the optimization and integration of new media technology in the allocation of traditional teaching resources. It is a teaching resource sharing platform based on Web service, and can provide comprehensive support for the drama teaching and resource sharing service system of teaching. Learners can obtain the required drama content and drama education mode through the interaction with drama teaching platform and resource sharing system.

## II. GOALS AND MEANING

### A. Integration and sharing of drama teaching resources

The design of this system is to transmit the traditional drama teaching resources and information through the Internet, to use the multimedia technology to add the multimedia function for the teaching system, to process the media information through the system, and to form the traditional drama multimedia network teaching environment. This network teaching system can realize the quick retrieval of information, accurate preservation of teaching data and timely evaluation of learning effect. To a great extent, it releases the consumption of materials, equipment, time and space in the previous teaching, and gives full play to the optimization and integration role of new media technology in the allocation of traditional drama teaching resources.

### B. Breaking through time and space constraints

The appreciation and teaching of traditional drama involves a large number of video and audio materials, different professionals and professional equipment, which requires high requirements on teaching resources and hardware and software configuration of classrooms. This system will free the students from the limitation of

---

\*Fund: The Project of "Construction and Practice of network collaborative learning Mode of Art Experimental Courses based on social media" from Sichuan Academy of Fine Arts, with the project number of 2020jg20.

attending classes in traditional classrooms. No matter when and where, they can choose courses according to their favorite ways, so as to realize the multi-dimensional expansion of drama teaching.

### *C. Being learner-centered*

The design of this system emphasizes that learners are the center, and each learner has his own learning style, thinking mode and behavior mode. Traditional drama multimedia network teaching can provide a variety of teaching interaction modes, and learners can choose according to their own preferences and interests. Such teaching mode strengthens the subject learning consciousness, stimulates learners' autonomy, and increases their interest in learning content.

### *D. Promoting collaboration and interaction*

Modern educational concept pays more attention to the cooperation and division of labor among students and the communication and interaction between individuals. In the traditional drama network teaching environment, it provides a shared information exchange platform for learners by means of intervening multimedia. The diversity of groups enables learners to have strong complementarity. The exchange of different views and opinions is conducive to the crystallization of collective wisdom, as well as the deepening of students' cognition of knowledge and the construction of rich knowledge. At the same time, the interactive function of the system can also arouse learners' enthusiasm for information response, improve learners' participation and contribution to online discussion, and thus create a good communication environment for traditional drama learning.

## **III. POSITIONING AND NEEDS**

### *A. Design positioning*

This system will design an open traditional drama database, which mainly stores all kinds of video materials (pictures, videos, documents and other different forms of materials) related to traditional drama. Learners can take full advantage of the convenience and availability of network resources to study anytime and anywhere. In a normal learning environment, learners are limited by time and space, so as to shorten the relationship between curriculum and learners, promote learners to play a main role in the learning process, and gain more sense of learning presence.

At the system level, it is convenient for various types of users to use effectively. Learners can complete learning tasks such as learning, communication, discussion, testing and evaluation through the system. At the same time, it is convenient for teachers to timely and appropriately master students' learning progress

and learning situation, so as to provide timely help and feedback to help students achieve higher learning effects.

The design of this system pays more attention to the extensibility of the system, which can be re-developed according to the development of the discipline and the teaching goal of keeping pace with the times, as well as the function adjustment of the system, which is convenient for developers to upgrade the system. In addition, against the background of Web2.0, social media is a widespread and typical daily application of modern people, and the collaborative learning mode based on social media has also become a new trend in the development of network teaching system. The design of this system will pay attention to docking with various social platforms, improve the functionality of the system, and expand the applicable population of the system.

### *B. Demand analysis*

This system is designed to integrate different types of traditional drama teaching resources to develop and form an integrated learning platform with functions of information management, course learning, communication and evaluation. The existing traditional drama resources are rich and varied, and the contents of teaching resources are relatively complex. The construction of system resource database involves a large scale of data, so it has a high requirement on the performance of system design. In order to ensure that learners can browse and consult all kinds of learning resources safely, the openness and expansibility of the database should be fully considered in the design process of teaching resource database. Teaching resources can form a smooth channel for uploading, downloading and retrieving, so that the application benefits of the system can be fully played and widely shared.

Because the system is based on campus network platform, and has the characteristics of openness, the system needs confidentiality, authentication, permissions restriction and authorization scheme, to provide users with efficient security services. It is used to prevent the leakage of user information, string modification and deletion of drama resources, malicious attacks on servers and other hidden dangers. At the same time, during the design process, it must be considered that when the system fails, the resources and account information related to drama can be automatically backed up, so that the database can be restored to normal in a short time after the catastrophic destruction.

As a network teaching system, it has a large amount of usage and update in daily operation and a wide range of influence. The server-side storage of the system must be able to meet the requirements of various drama

resources newly added by users every day, as well as the capacity to accommodate and respond to simultaneous access by multiple users. In addition, the system also needs to ensure the universality and accuracy of drama resources in user retrieval and the matching rate of query conditions, allowing users to share with each other while searching. In order to meet the requirements of resource expansion and resource structuring in the later stage of the system, the newly added drama resources should be integrated into the existing drama resources through specific algorithms, and the transformation should be realized without changing the existing data relationships.

#### IV. DESIGN METHOD

##### A. User information management module

Users of this system include these three types of non-registered users, registered users (teachers and learners), and administrators.

- the registered user is anonymous visitors. Such users can retrieve information about drama course resources through various ways and browse drama course resources.
- registered users include educators and learners. This type of user can not only retrieve and browse course resources, but also synchronize the user's browsing history and favorites bar system, and have the right to collect, share, download and upload drama resources.
- administrator is background management of the users of the system platform. Administrators can manage registered user information and drama resources, and can filter drama resources uploaded by users.

1) *Registering and logging in:* Users can register for a new account by filling in user name, mobile phone number, email address, etc. For students on campus, users can fill in student number to facilitate the management of educational administration staff. Registered users can log in directly with their accounts.

2) *Administrator rights:* In addition to viewing the personal information of registered users, administrators can also modify basic drama information, add new drama resources or delete existing drama resources.

3) *Statistical analysis:* The homepage of the system can view the access records of users, count the visits of various drama resources, and optimize the operation of the system by referring to the visits.

##### B. Teaching resource management module

1) *Uploading traditional drama teaching resources:* The upload module includes the storage of traditional

drama teaching resources, teaching course introduction, uploading time, uploading file name, course label and other parts. The permission of this module is open to teachers and administrators, and the system will automatically verify the format and size of the uploaded information and resources, and only after the verification can the module be uploaded to the system for saving.

2) *Retrieval of traditional drama teaching resources:* Users can enter the keyword of course resources to be searched in the search box for retrieval, and set the corresponding retrieval range. Multiple drama resource types can be selected in the check box of the search interface. Users can retrieve drama course resources according to their personal interests, and then select their favorite dramas to browse according to the search results.

3) *Downloading traditional drama teaching resources:* This system supports registered users to download their favorite drama course resources to their local computer. Users can click the download button to download. If the server finds that the user is anonymous, the server will redirect the user's page to the login interface to remind the user to log in. After successful login, the user can download the drama resource.

##### C. Interaction and sharing module

After clicking the corresponding drama teaching resources, users can generate sharing links for friends to enjoy the retrieved drama resources, or share them to their own social networking sites, or discussion groups for users to participate in the discussion. At the same time, you can also choose to cancel the sharing of the drama resource and delete the discussion group related to the drama resource.

Users can also enter the discussion function page and select the issue they are interested in to discuss. At the same time, they can see the corresponding discussion information and publish their opinions on the issue. They can enter the information related to the discussion and click the publish button to complete the publication of the discussion.

##### D. Test and evaluation module

The online test management module realizes the detection of students' learning status. Teachers send test notifications to students through the system, and all members of the notification object can receive the test notification information. The student user logs into the system at the specified time to complete the test.

Teacher users can release evaluation results to students participating in the test through the system to help students understand their learning status. At the

same time, the system also designed a self-evaluation module, through which students can achieve the analysis and reflection of course learning.

## V. CONCLUSION

For the design of network teaching system, the positioning and actual needs of the developed system should be clarified, and the structure level of the system should be designed rationally. Meanwhile, the convenience and feasibility of the digital conversion of teaching materials should be ensured, and a network platform for resource sharing and learning exchange should be established reasonably. The appreciation and study of traditional drama are obviously dependent on teaching materials, and a large number of video materials are needed as teaching resources. Therefore, it is particularly important to design an expanded teaching environment that is not limited by time and space. This paper takes the design of traditional drama network teaching system as the research object, explores the relationship between multimedia technology and drama teaching resource sharing, and seeks for the traditional drama teaching method that adapts to the rapid changes of media technology with the help of Internet concept. With the continuous development of mobile Internet technology, there will be more multimedia teaching technology in line with the trend of the times into the design of this system.

## References

- [1] Roger Lewis. What is open learning. Taylor & Francis Online, 2006, pp. 5-10.
- [2] Xiao-dan Liang. The Design and Implementation of Mutual-Help Teaching System Based on Multimedia Network, *Procedia Environmental Sciences*, 2012, pp. 12-18.
- [3] Feng Zhan. Analysis of multimedia Distance education System based on Network, *Electrochemical education*, 2001, pp. 36-39.
- [4] Sondang R. Manurung, and Satria Mihardi. "Improved Problem-Solving Ability after using Interactive Multimedia in Teaching of Ideal Gas." *Indian Journal of Science and Technology* 11.36(2018):. doi:..
- [5] Lisa Stark, et al. "Emotional text design in multimedia learning: A mixed-methods study using eye tracking." *Computers & Education* 120.(2018):. doi:..
- [6] Yakob M, et al. "The effectiveness of science experiment through multimedia teaching materials to improve students' critical thinking." *Journal of Physics: Conference Series* 1567.4(2020):. doi:..