



THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE ONLINE LEARNING  
CENTER FOR LIFELONG LEARNING



DAN XIE

Graduate School Srinakharinwirot University

2024

การพัฒนาศูนย์เรียนรู้มรดกทางวัฒนธรรมที่จับต้องไม่ได้ออนไลน์เพื่อการเรียนรู้ตลอดชีวิต



ปริญญานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตร

การศึกษาดุษฎีบัณฑิต สาขาวิชาศิลปศึกษา

คณะศิลปกรรมศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ

ปีการศึกษา 2567

ลิขสิทธิ์ของมหาวิทยาลัยศรีนครินทรวิโรฒ

THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE ONLINE LEARNING  
CENTER FOR LIFELONG LEARNING



A Dissertation Submitted in Partial Fulfillment of the Requirements  
for the Degree of DOCTOR OF EDUCATION  
(Ed.D. (Arts Education))

Faculty of Fine Arts, Srinakharinwirot University

2024

Copyright of Srinakharinwirot University

THE DISSERTATION TITLED  
THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE ONLINE LEARNING  
CENTER FOR LIFELONG LEARNING

BY  
DAN XIE

HAS BEEN APPROVED BY THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DOCTOR OF EDUCATION  
IN ED.D. (ARTS EDUCATION) AT SRINAKHARINWIROT UNIVERSITY

-----  
(Assoc. Prof. Dr. Chatchai Ekpanyaskul, MD.)  
Dean of Graduate School  
-----

ORAL DEFENSE COMMITTEE

..... Major-advisor	..... Chair
(Asst. Prof. Dr.Porawan Pattayanon)	(Asst. Prof. Dr.Suksanti Wangwan)
..... Co-advisor	..... Committee
(Asst. Prof. Dr.Piyawadee Makpa)	(Asst. Prof. Dr.Rawiwan Wanwichai)
	..... Committee
	(Asst. Prof. Dr.Nuttida Pujeeb)



Title	THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE ONLINE LEARNING CENTER FOR LIFELONG LEARNING
Author	DAN XIE
Degree	DOCTOR OF EDUCATION
Academic Year	2024
Thesis Advisor	Assistant Professor Dr. Porawan Pattayanon
Co Advisor	Assistant Professor Dr. Piyawadee Makpa

Intangible cultural heritage (ICH) is a vital marker of national culture, and its preservation and transmission have garnered global attention. In 2003, UNESCO adopted the Convention for the Safeguarding of the Intangible Cultural Heritage, encouraging countries to strengthen the protection and documentation of ICH. Subsequently, China implemented policies to record and preserve ICH resources through various means. Meanwhile, the concept of lifelong education offers a significant avenue for cultural transmission, integrating traditional culture to combine knowledge dissemination with cultural preservation. This study examines three Chinese ICH forms—Hunan Baling Opera, Jinghe Opera, and Xiang Opera—with the aim of developing an online course center to explore a lifelong education model, thereby promoting the inheritance and dissemination of opera culture and increasing public awareness. This research employs the following methodologies: 1) Literature review; 2) Fieldwork: on-site observation and participation; 3) System validation; 4) Questionnaire surveys; 5) Semi-structured interviews. The study randomly sampled participants from Hunan Institute of Science and Technology, Sichuan Conservatory of Music, and cultural communities in Chengdu. Additionally, interviews were conducted with five opera experts and university faculty. Based on lifelong education principles, a comparative analysis of five online learning centers in China was undertaken to inform the design of an online learning center for Hunan opera ICH. A draft platform design was completed and subsequently evaluated by two Thai experts and three Chinese experts, who assessed and scored the platform. This study successfully designed a comprehensive draft for an online course center, which passed expert evaluations from both Thailand and China. The final implementation involves an online learning center dedicated to ICH opera. The content design of the learning center targets lifelong learners, covering teaching objectives, methods, system architecture, and online learning materials. The design emphasizes accuracy, structured chapters, and teaching efficiency. The ICH online learning center integrates four key elements: people (educators, learners, and administrators), communication technology, learning resources, and learning activities. The platform content spans history, language, costumes, makeup, accompanying instruments, and classic arias. Centered on learners, with communication technology as the medium, the platform fosters information exchange, resource allocation, and learner-driven exploration and interaction. It prioritizes learners' autonomy, lifelong learning, and interactive engagement, enhancing the overall learning experience.

Keyword : Chinese traditional opera lifelong learning intangible cultural heritage Hunan opera ICH online learning center

## ACKNOWLEDGEMENTS

On the occasion of the successful completion of this thesis, I would like to express my sincere gratitude to all my teachers, classmates, friends, and family for their support and assistance. First of all, I would like to express my deepest gratitude to my advisor, Assistant Professor Dr. Porawan Pattayanon. He has devoted his time and effort from the selection of the research topic to the final thesis. Throughout the past three years, Assistant Professor Dr. Porawan Pattayanon has provided me with continuous guidance and assistance, as well as creating an environment conducive to my studies and providing me with opportunities for self-development. His academic thoroughness, research expertise, and good role model have deeply impacted me. I consider receiving his advice as a great fortune. In my life, I would like to thank my co-advisor, Assistant Professor Dr. Piyawadee Makpa, for her careful guidance, valuable academic advice, and clear research direction, which have laid a solid foundation for this study. I would also like to thank all the participants and interviewees. Their enthusiasm and sincere sharing of information have provided valuable information for this study and were instrumental to the success of this research. Finally, I would like to thank my family and friends for encouraging and supporting me through the challenges of the research process. I am deeply grateful for the efforts of everyone who contributed to this study. My time studying and living at Srinakharinwirot University was an important time in my life. At the same time, it gave me the opportunity to learn and grow. I will always remember this invaluable experience and am determined to move forward with a heart full of gratitude.

DAN XIE

## TABLE OF CONTENTS

	Page
ABSTRACT .....	D
ACKNOWLEDGEMENTS.....	E
TABLE OF CONTENTS.....	F
LIST OF TABLES.....	L
LIST OF FIGURES .....	O
CHAPTER 1 INTRODUCTION .....	1
1.1 Background introduction .....	1
1.2 Research objective .....	10
1.3 Research scope .....	10
1.4 Definition of terms .....	11
1.4.1 Intangible Cultural Heritage (ICH).....	11
1.4.2 Lifelong Education:.....	11
1.4.3 Online Learning Center .....	12
1.5. Thesis framework .....	12
CHAPTER 2 LITERATURE REVIEW.....	13
2.1 Documents related to the intangible cultural heritage of some operas in Hunan .	13
2.1.1 Baling Opera .....	13
2.1.2 Jinghe Opera.....	16
2.1.3 Hunan Opera.....	21
2.2 Theory related to the establishment of a database .....	24
2.3 Research Status of Online Learning Center .....	27

2.3.1 Learning Center.....	27
2.3.2 Online Learning Center .....	29
2.4 Related concepts of lifelong learning .....	33
2.4.1 Theoretical framework of lifelong learning .....	33
2.4.2 Open Course Mode.....	37
CHAPTER 3: RESEARCH METHODS.....	41
3.1 Research Design .....	41
3.1.1 Research Process .....	41
3.1.2 Research Methods .....	48
3.2 Ethical considerations.....	49
3.3 Research Participants.....	50
3.3.1 Survey on the Importance of Traditional Chinese Opera Data Participants	50
3.3.2 Survey Participants of Hunan Opera Intangible Cultural Heritage Learning Platform .....	51
3.3.3 Hunan Opera Intangible Cultural Heritage Opera Experts .....	52
3.3.4 Hunan Opera Intangible Cultural Heritage University Teachers .....	53
3.3.5 Learning Platform Verification Experts .....	53
3.4 Research Methods.....	54
3.4.1 Survey Questionnaire on the Importance of Traditional Chinese Opera.....	54
3.4.2 Survey Questionnaire for Hunan Opera Intangible Cultural Heritage Learning Platform .....	55
3.4.3 Outline of semi-structured interviews with opera experts.....	55
3.4.4 Platform Expert Scoring Table .....	56
3.4.5 Recording Equipment .....	56

3.5 Data Collection.....	56
3.5.1 Quantitative Data Collection.....	56
3.5.2 Qualitative Data Collection.....	56
3.6 Data Analysis .....	57
3.6.1 Quantitative Data Analysis .....	57
3.6.2 Qualitative Data Analysis .....	57
CHAPTER 4 DATA ANALYSIS.....	58
4.1 Interviewees .....	58
4.1.1 Questionnaire .....	58
4.1.2 The information of experts.....	60
4.1.3 Summary Table of Basic Information of Platform Verification Experts .....	61
4.2 Analysis of quantitative information .....	62
4.2.1 Awareness and Interest in Hunan Opera Nonheritage.....	63
4.2.2 Willingness and Objectives of Learning Hunan Opera Nonlegacy .....	65
4.2.3 Content of Hunan Opera Non-legacy Online Learning Center .....	68
4.2.4 Expected Teaching Activities of Hunan Opera and Non-legacy Online Learning Center .....	72
4.2.5 Expected Learning Experience of Hunan Opera Non-legacy Online Learning Center .....	75
4.2.6 Summary of this section .....	79
4.3 Analysis of qualitative information .....	80
4.3.1 Current Situation and Effect of Online Education and Inheritance of Opera Nonlegacy in Hunan Province .....	80

4.3.2 Target Learning Population and Content Preference of Hunan Opera Non-legacy Online Education .....	83
4.3.3 Teaching Content and Display Forms of Hunan Opera Non-legacy Online Learning .....	86
4.3.4 Status and Challenges of Teaching and Learning on the Hunan Opera Non-legacy Online Learning Platform .....	90
4.3.5 Acceptance and Advantages of Hunan Opera Non-legacy Online Learning Platform .....	93
4.3.6 Summary of this section .....	98
4.4 Comparative analysis of 5 major learning platforms under the principle of lifelong education .....	100
4.4.1 Ensuring educational continuity and preventing knowledge loss .....	101
4.4.2 Educational programs and methods should be adapted to the specific objectives of each population group .....	108
4.4.3 Education aimed at preparing people for lifestyles characterized by constant evolution, change and transformation .....	113
4.4.4 Extensive use of various training and information tools to break through traditional definitions of education and institutional constraints.....	125
4.4.5 Establishing a strong link between action and educational objectives .....	130
4.4.6 Summary of this section .....	141
4.5 Design of Hunan Opera Intangible Cultural Heritage Online Learning Platform System .....	143
4.5.1 Online Learning Center Learning Elements Section.....	143
4.5.2 Modified Online Learning Center Teaching Activity Board Display .....	145
4.5.3 Online Learning Center Learning Area .....	148

4.5.4 Online Learning Center Exchange Area Display .....	149
4.5.5 Display of homework submission section in online learning center .....	151
4.5.6 Summary of this section .....	153
4.6 Expert Evaluation of Hunan Opera Non-legacy Online Learning Platform .....	154
4.6.1 Expert assessment of learning elements in online learning centers .....	155
4.6.2 Expert assessment of teaching and learning activities in online learning centers.....	156
4.6.3 Expert assessment of learning areas in online learning centers .....	158
4.6.4 Expert assessment of the online learning center communication area .....	160
4.6.5 Expert assessment of the post-course assignment submission area of the online learning center .....	161
4.6.6 Additional expert advice .....	163
4.6.7 Summary of this section .....	165
CHAPTER 5 RESULTS AND DISCUSSION .....	167
5.1 Research Results .....	167
5.2 Research Discussion .....	172
5.3 Suggestions for the Future .....	175
5.3.1. Suggestions for the use of research results .....	175
5.3.2. Research limitations and future research recommendations .....	176
REFERENCES.....	178
APPENDIX .....	188
VITA .....	243

## LIST OF TABLES

	Page
Table 1 Population and Sample Size by University Classification .....	51
Table 2 Population and sample size classified by sampling location .....	52
Table 3 Hunan Opera Intangible Cultural Heritage Opera Experts .....	52
Table 4 Teachers of Hunan Opera Intangible Cultural Heritage Universities .....	53
Table 5 Verification Expert List for Learning Platform .....	54
Table 6 Distribution of Population Information .....	59
Table 7 Basic Information of Experts .....	60
Table 8 Summary of Basic Information of Platform Verification Experts .....	62
Table 9 Summary of Awareness and Interest in Hunan Opera NRM Survey .....	63
Table 10 Summary of Willingness and Goal Survey on Learning Intentions and Goals of Hunan Opera Nonlegacy .....	65
Table 11 Summary of the Expected Content Survey of Hunan Opera and Non-legacy Online Learning Center .....	68
Table 12 Summary of the Survey on Expected Teaching Activities of Hunan Opera and Non-legacy Online Learning Center .....	72
Table 13 Summary of Expected Learning Experience Survey of Hunan Opera Non-legacy Online Learning Center .....	75
Table 14 Effectiveness of online education transmission methods of Hunan opera non-legacy .....	81
Table 15 Learning Population and Characteristics Mainly Targeted by Hunan Opera Non-legacy Online Learning Center .....	83



Table 16 What the people interested in Hunan opera non-legacy are more willing to study .....	85
Table 17 Prioritized Teaching Content of Hunan Opera NRMs .....	86
Table 18 Forms in which learning materials for Hunan opera NRM should be presented .....	88
Table 19 What difficulties will be encountered in online learning of Hunan Opera NPOs .....	90
Table 20 Whether there is currently an online learning platform for Hunan opera NPOs	91
Table 21 Acceptance level of online teaching among people interested in Hunan opera nonlegacy .....	93
Table 22 What Better Learning Opportunities Can Be Provided by Creating a Dedicated Online Learning Center for Hunan's Opera and Non-Fragrant Cultural Heritage .....	94
Table 23 How to set the course content when creating the Hunan Opera Nonfiction Online Learning Center .....	96
Table 24 Comparison of Learning Paths on Major Platforms .....	103
Table 25 Comparison of video features of major platform modules .....	107
Table 26 Comparison of the number of courses set up for each platform .....	110
Table 27 Comparison of course guidance resources across learning platforms .....	111
Table 28 Comparison of course design mechanisms across platforms .....	115
Table 29 Organizational composition of the major course platforms .....	118
Table 30 Market Impact of Major Platforms .....	121
Table 31 Discussion forums on major platforms .....	126
Table 32 Modalities for assessing performance and certifying completion of major platforms .....	128
Table 33 Comparison of learning paths across platforms .....	131

Table 34 User self-directed mechanisms on major platforms .....	135
Table 35 Inclusiveness and feasibility of major platforms .....	138
Table 36 Summary table of experts' assessment of learning elements of online learning centers .....	155
Table 37 Summary table of experts' assessment of teaching and learning activities in online learning centers .....	156
Table 38 Summary table of experts' assessment of teaching and learning activities in online learning centers .....	158
Table 39 Summary Table of Experts' Assessment of Teaching and Learning Activities in Online Learning Centers .....	160
Table 40 Summary table of experts' assessment of teaching and learning activities in online learning centers .....	161
Table 41 Summary of additional expert recommendations .....	163

## LIST OF FIGURES

	Page
Figure 1 The research framework diagram illustrates how Hunan opera intangible cultural heritage and online learning centers can be combined under the concept of lifelong education. ....	12
Figure 2 Composition of elements of the modified Hunan Opera Nonheritage Online Learning Center.....	144
Figure 3 Modified flow of activities of some Hunan opera and non-heritage online learning centers.....	147
Figure 4 Learning Process of Hunan Opera Intangible Cultural Heritage Online Learning Center.....	149
Figure 5 The formation process of communication at Hunan Opera Intangible Cultural Heritage Online Learning Center.....	151
Figure 6 Hunan Opera Intangible Cultural Heritage Online Learning Center Homework Submission Chart.....	152

# CHAPTER 1

## INTRODUCTION

### 1.1 Background introduction

Intangible cultural heritage is an important symbol of a country's and a nation's historical and cultural heritage, an important component of traditional culture, and a valuable social and cultural asset. On October 17, 2003, the 32nd session of the UNESCO General Conference adopted the Convention for the Safeguarding of the Intangible Cultural Heritage, which is an important milestone in the protection of intangible cultural heritage in human history (Lazaro Ortiz&Jimenez de Madariaga, 2022). On August 28, 2004, the 10th National People's Congress of the People's Republic of China approved the Convention on the Protection of Intangible Cultural Heritage, making China the sixth country to join the Convention (Tomczak, 2017). Since the signing of the Convention for the Safeguarding of the Intangible Cultural Heritage, countries around the world have responded by taking measures to protect their own intangible cultural heritage.

China has reached a consensus with the international community on the protection of intangible cultural heritage, and has issued and implemented a series of relevant documents on the protection of intangible cultural heritage. The General Office of the People's Republic of China issued the "Opinions on Strengthening the Protection of Intangible Cultural Heritage in China" in 2005, which clearly stated that through the use of text, audio, digital and multimedia means, intangible cultural heritage should be recorded truthfully, systematically and comprehensively, and archives and databases should be established. Rescue measures should be taken for projects on the brink of disappearance (Xie et al., 2022). In order to further strengthen the protection of intangible cultural heritage, relevant departments in China have taken active actions and carried out a large number of protection and inheritance activities. After a period of preliminary legislative preparation, the Intangible Cultural Heritage Law of the People's Republic of China was promulgated and implemented in 2011. Articles 12 and 13 of the law stipulate that the competent authorities and other departments should not only

study, research and explore intangible cultural heritage, but also fully understand it, and then identify, record, establish archives and databases (Kang, 2012). On this basis, it provides legal basis and policy support for subsequent protection work, and marks an important step for China in the protection of intangible cultural heritage. In order to better implement the Law of the People's Republic of China on Intangible Cultural Heritage, the government and cultural departments have established specialized institutions for the protection of intangible cultural heritage, responsible for the specific work. In 2021, the Central People's Government of the People's Republic of China issued the "Opinions on Further Strengthening the Protection of Intangible Cultural Heritage", proposing that "protecting, inheriting, and utilizing intangible cultural heritage is of great significance for us to inherit historical context, enhance cultural confidence, promote exchanges and mutual learning among various civilizations, and build a socialist cultural power" (Yi, 2021).

In terms of the inheritance of intangible cultural education, cultural experts and scholars usually pay attention to the following aspects: 1. Record and preserve the skills and knowledge of intangible cultural heritage by studying methods of inheritance and protection to ensure the continuity of traditional skills and culture. 2. By integrating intangible cultural heritage into the teaching system and providing courses related to intangible cultural heritage, we will cultivate learners' knowledge and understanding of intangible cultural heritage. 3. Explore the commonalities and differences between different cultures. Explore the combination of intangible heritage and modern cultural innovation to promote the innovation and development of intangible heritageexhibition.(Chen, 2009; Lei Rong and Hu, 2012; Liu, 2024) The study of intangible cultural heritage in education by experts and scholars has prompted the author to focus on the national intangible cultural heritage project in Hunan Province. There is a total of 137 intangible cultural heritage in Hunan Province, including 9 in folk literature; 16 in traditional music; 13 in traditional dance; 32 in traditional comedy; 6 in folk art; 4 in traditional sports, entertainment, and acrobatics; 19 in traditional art; 6 in traditional medicine; and 17 in folklore (Lin et al., 2021). According to the above data,

Hunan is a large drama province. This study selects Baling Opera, Jinghe Opera and Hunan Opera, which are representatives of the intangible cultural heritage of drama, as the research object. According to the announcement of China Intangible Cultural Heritage Network in 2006, Baling Opera, Jinghe Opera and Xiang Opera are the first batch of national intangible cultural heritage of traditional dramas in Hunan Province. The project number of Baling Opera is IV-34, the project number of Jinghe Opera is IV-35, and the project number of Xiang Opera is IV-13. They are all funded by the government.

According to a random survey conducted by 500 tourists, workers, or students from Hunan University of Technology and Sichuan Conservatory of Music (see Appendix 1 for details), 91% of people strongly agree with the option "Hunan is a province with a strong emphasis on traditional Chinese opera", 7.1% agree, and only 1.1% and 0.8% respectively express general and non agreement. 90% of people strongly agree with the title 'Baling Opera is the first batch of national intangible cultural heritage and a representative of Xiangbei Opera', 8.2% agree, 1.79% agree with it, and 0.01% and 0.005% respectively disagree and strongly disagree. The title 'Hunan Opera is the first batch of national intangible cultural heritage and a representative of Hunan Opera' was highly agreed upon by 93.2% of people, 6.5% of people agreed, and 1.3% of people expressed general agreement, with no one disagreeing or strongly disagreeing. Finally, 89.9% of people strongly agree with the title "Jinghe Opera is the first batch of national intangible cultural heritage and a representative of Xiangnan Opera", 9.4% of people agree, and only 0.5% of people say it is average. Overall, Hunan's opera culture has been widely recognized, and the vast majority of people believe that Hunan plays an important role in opera culture. Hunan has a high degree of recognition for opera culture in people's hearts, and almost everyone has expressed a positive attitude towards Baling Opera, Jinghe Opera, and Xiang Opera. Based on the findings of this survey questionnaire, this study identified the research subjects as Baling Opera, Xiang Opera, and Jinghe Opera.

Baling Opera is the representative of opera in eastern Hunan and occupies an important position in local dramas in Hunan Province and even the whole country. Its repertoire, language, voice, music, performance and even performances carry a large amount of Yueyang historical and cultural information. It is a "living fossil" for the study of Yueyang's historical culture and folk customs, and a valuable material for studying the evolution of Chinese opera and the formation and development of local dramas (Song, 2010). In 2006, Baling Opera was approved by the State Council of the People's Republic of China to be included in the first batch of national and intangible cultural heritage, No. IV-34.

Jinghe Opera is one of the local operas in Hunan Province, China. It is named because it is spread in the Jinghe section of the Yangtze River. Jinghe Opera has a long history. It originated in the Yongle period of the early Ming Dynasty. The Qing Dynasty was the prosperous period of Jinghe Opera (Sun, 2005). As a local genre of Chinese opera, it holds an important position and unique regional characteristics in the Yangtze River Basin (Liu, 2008). In 2006, Jinghe Opera was approved by the State Council of the People's Republic of China and was included in the first batch of national and intangible cultural heritage, No. IV-35.

Hunan opera, also known as Hunan opera, is one of the local dramas forms popular in Hunan Province, China (Chen Feihong 2003). It is listed as one of the important local operas in China along with Peking Opera, Yue Opera, Henan Opera, etc. Hunan opera is mainly popular in Changsha, Xiangtan, Zhuzhou, and other areas in Hunan Province, with a deep mass base and rich repertoire resources (Wu, 2021). Hunan Opera is not only an important part of Hunan culture, but also an asset of traditional Chinese culture. In 2006, Hunan Opera was included in the first batch of national and intangible cultural heritage with the approval of the State Council of the People's Republic of China, No. IV-13.

Lifelong learning refers to the continuous learning process of individuals throughout the life cycle, which is driven by the commitment of personal growth, aiming to adapt to the development of lifelong education and achieve personal development



goals. It is the sum of the types of education carried out in a person's life. Its basic characteristics are lifelong, democratic, comprehensive, flexible, practical, and extensive. Lifelong learners can seek other learning methods in the face of a new learning task, which can dynamically adjust learning methods and become Meta-Learning. In the context of artificial intelligence system, meta-learning can be simply defined as the ability to acquire knowledge diversity. It is a teaching to "learn how to learn". The purpose is to make the model acquire the ability to "learn to learn" and quickly learn new tasks based on existing "knowledge", that is, to make use of previous knowledge experience. To guide the learning of new tasks and can learn.

In 1965, the idea of lifelong education has been widely spread all over the world since Par Lengrand, a Frenchman who was then director of the UNESCO's Bureau of Adult Education, first proposed "Lifelong Education" during the International Conference for the Promotion of Adult Education. Lifelong learning refers to the process of continuous learning throughout an individual's life cycle, aimed at adapting to the development of lifelong education and achieving personal development goals (Cai, 2024). It is the sum of the types of education carried out throughout a person's life, characterized by lifelong, democratic, comprehensive, flexible, practical, and extensive (Thwe & Kalman, 2024).

However, the current situation of the construction of China's lifelong learning system is worrying. The construction of China's lifelong learning mechanism and development model lags behind that of developed countries and cannot meet the current needs of people. In China, the lifelong learning system is still in its infancy and there is a gap compared to developed countries, lacking comprehensive guarantee mechanisms and distinctive learning models. Despite the rapid development of vocational colleges and open universities, traditional educational resources are limited and unable to meet the needs of society, and the problem of illiteracy rate remains prominent. In addition, uneven regional development leads to significant differences in learning facilities and conditions, with significant differences between the eastern and western regions as well as between urban and rural areas. Li Shuting pointed out that the



mechanism and model construction of China's lifelong learning system in the past have the following three characteristics (2024): 1. The lag of lifelong learning practice. Due to the late inception of lifelong learning, the practical activities of lifelong learning have just begun in China. Therefore, there is still a big gap between the construction of China's lifelong learning system and that of developed countries. Especially in China, a complete set of lifelong has not yet been formed. With the learning guarantee mechanism, people's various lifelong learning needs cannot be effectively guaranteed; at the same time, some unique lifelong learning models have not been built to meet the needs of different social groups. 2. The limited nature of traditional educational resources. In recent years, although China's higher vocational colleges and open universities have developed greatly, which has met the needs of members of society for learning resources to a certain extent, but in the face of the challenges of many lifelong learning individuals in society, limited educational resources cannot be met. As of January 11, 2023, according to the results of the seventh national census, the total population by sex in 2022, the proportion of male illiteracy is 1.32%, and the proportion of female illiteracy is 4.10%. This high proportion of illiteracy cannot be solved by relying on limited traditional resources alone. 3. The imbalance of regional development. After more than 40 years of reform and development, while China's economy has achieved rapid development, the imbalance of regional development has also emerged. The imbalance of economic development has led to differences in learning facilities and conditions, and the differences between the eastern coastal areas and the western remote areas, developed cities and backward rural areas. Special.

In January 2017, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council triggered the Opinions on the Implementation of the Development of the Chinese Excellent Traditional Culture Inheritance Project, which pointed out that "the excellent traditional culture and textbooks of the Chinese nation and school curriculum should be deeply integrated, and excellent traditional culture should be an important content in education, and should be carried out through the form of development (Zhong et al., 2024). A variety of

educational activities deeply combine excellent traditional culture with curriculum construction (Wang, 2024, Cai et al., 2024). As far as music school-based courses are concerned, the research on the inheritance of local culture is gradually increasing. There is a close relationship between local music and local history and culture. Local culture is not only the main carrier of curriculum life development, but also the main source of course resources. Cherishing local culture and music inheritance has become the current era. The theme of development.

As a way of human cultural inheritance, lifelong education introduces traditional excellent culture into the teaching of lifelong education, which not only promotes the diversified development of music education under the knowledge dissemination system and reflects the cultural value of local art, but also has practical significance for the inheritance and protection of excellent culture. The author believes that it is very necessary to develop excellent cultural school-based textbooks suitable for lifelong education, so that learners can fully understand the history of excellent traditional culture, constantly summarize beneficial experiences in development and design, and find organizational ways, management, and implementation models suitable for lifelong education to carry out excellent traditional cultural courses.

Hunan local opera, including Jinghe opera, Hunan opera, Baling opera, etc., is an important part of Chinese opera culture, with profound historical and cultural foundation and unique local characteristics. These three kinds of operas are China's national intangible cultural heritage. The formal recognition of these three kinds of operas as cultural heritage at the national level has established their position in traditional Chinese culture and marked the recognition of their importance of inheritance and protection at the national level. This article takes Hunan's intangible cultural heritage Baling Opera, Jinghe Opera and Hunan Opera as the research object. Through the study of opera, the course of opera is set up, and Internet technology is used to design a relatively complete learning center system. It aims to promote and inherit some opera culture in Hunan and attract more attention from the society. At present, although intangible culture has attracted enough attention, there are still serious problems in the

inheritance of education. School education is a major means at present, but the scope is not wide, and there are still limitations in the wide spread. Seek continuing education to learn the dissemination of opera, and participate in formal educational programs, workshops, seminars or online courses to gain more knowledge and skills about opera.

To protect and inherit some operas in Hunan, the authorities and relevant cultural institutions are committed to promoting intangible cultural heritage protection, performance, training, and education projects to ensure that the traditional art of opera is preserved and developed, and is understood and appreciated by more people. The purpose of this study is to correctly carry forward the spirit of national culture and spread excellent opera culture. In this era of rapid technological development, it is of great significance to use information technology to integrate traditional Chinese culture and education. Most of the traditional lectures, performances and other forms only stay at the shallow level of cultural communication, which does not enable learners to truly master the deep connotation of culture. Digitally empowered education can effectively help solve this dilemma. Database is the most basic and important digital protection method at present. It accesses a collection of digital images, sound files, documents and other data related to history, science or culture through electronic media, and stores and completes display, collection, education and research functions through the Internet or other digital means. Therefore, database information technology is of great significance to the protection of intangible cultural heritage. The establishment of the opera music resource database will accelerate the transformation of opera music resources into the form of data management, greatly promote the dissemination and exchange of Hunan opera. With the content of the opera database as the support, the use of relevant Internet technology to build an online learning platform, which can enable traditional opera to get out of the limited scope of classrooms and academic research through a new educational method, providing people with a very convenient way. Online courses have the characteristics of low cost, flexible learning methods and wide audience. The combination of intangible culture and education supported by information technology has greatly improved the efficiency of cultural communication.

With the development of the Internet, the emerging learning method of online learning has been widely accepted. This method is necessary for the dissemination and development of the intangible cultural heritage of Chinese opera.

Since 2020, affected by the COVID-19 epidemic, many schools and institutions have adopted the online learning model, which has greatly promoted the growth of users in online learning centers. With the progress of artificial intelligence, big data, cloud computing and other technologies, domestic online learning platforms continuously optimize user experience and launch personalized recommendations, intelligent evaluation, and other functions to improve learning efficiency. Online learning is increasingly rich, covering preschool to higher education, vocational skills training, hobbies learning and other fields. Many large Internet companies (such as Tencent, Alibaba, ByteDance, etc.) have entered the field of online education and launched their own learning platforms, such as Tencent Conference, Dingding, etc. Many traditional educational institutions such as New Oriental and Good Future have also been transformed or expanded to the field of online learning and launched professional courses. Many entrepreneurship companies and start-ups have also joined the online learning market to provide professional services for specific subdivisions. There are many online education centers, and the market competition is extremely fierce, which has also led to the decline of course quality and excessive marketing to attract some platforms. Although online learning alleviates the problem of uneven distribution of urban and rural educational resources to a certain extent, differences in technology and network access, insufficient teachers and other problems still exist, and there is still a big gap in the educational opportunities and quality of learners in different regions and different economic conditions. And the online platform cannot grasp the learning status of students well. Without the guidance and supervision of teachers, the learning quality of students may also decline. Therefore, the online learning center needs to be flexible and interactive, so that students can have an interest in learning. A single knowledge output is not conducive to students to develop good thinking habits, but it is easy to make students develop learning inertia. The online course of opera culture is different

from the general culture course. The setting of the opera course not only explains the history of opera, but also pays more attention to performance. In the process of learning, students need the guidance of teachers on their own performance skills, such as voice and body shape, so it is necessary to have an interactive online learning center. Based on the particularity of the course, the design of the platform needs to consider the combination of theory and practice, and the method of recording and broadcasting courses combined with live classes can be adopted. The recorded course is convenient. Students can watch it independently. If there is anything they don't understand, they can also make class annotations, and discuss with teachers and students in the discussion area at the bottom of the course. The live broadcast class is used for teachers to answer students' questions and students to return classes. The main motivation of this research is to address the lack of online courses for Chinese opera intangible cultural heritage, specifically by setting up online learning centers for Balin Opera, Jinghe Opera, and Xiang Opera, and providing lifelong learning opportunities for the public. Therefore, this study aims to create a comprehensive set of online courses for each of these three operas, establishing an online center for lifelong education. The goal is to explore a lifelong education model for opera that is accessible to the general public, allowing people to engage in continuous learning throughout their lives.

## **1.2 Research objective**

1. Study on the content of an online learning center for certain Hunan operas (Balin Opera, Jinghe Opera, and Xiang Opera)
2. Design an online learning center for intangible cultural heritage operas, so that people can achieve lifelong learning goals.

## **1.3 Research scope**

The research subjects of this study include students from the higher education art departments of Hunan University of Technology and Sichuan Conservatory of Music in China, Social groups around the cultural center, as well as experts in the field of

opera and teaching and educational technology. The samples used in the research are as follows:

1. The sample for investigating the status of Baling Opera, Jinghe Opera, and Hunan Opera in people's minds came from 500 art students related to music at Hunan University of Technology and Sichuan Conservatory of Music.

2. The sample for studying the problems and needs in the lifelong education platform teaching of some intangible cultural heritage opera in Hunan comes from 3 intangible cultural heritage inheritors in 3 regions and 3 university teachers in 2 regions.

3. The sample for studying the construction mode and opinions of lifelong education platforms for some intangible cultural heritage opera in Hunan Province consists of 940 people from three different places, including 278 students from Hunan University of Technology, 278 students from Sichuan Conservatory of Music, and 384 people from the surrounding area of Chengdu Cultural Center.

4. The sample for evaluating and recommending the lifelong education platform model for some intangible cultural heritage opera in Hunan comes from two platform construction experts in Sichuan, China.

#### **1.4 Definition of terms**

##### **1.4.1 Intangible Cultural Heritage (ICH)**

Often abbreviated as "ICH", in China, intangible cultural heritage refers to various traditional cultural expressions passed down through generations by different ethnic groups and considered an integral part of their cultural heritage, as well as the physical objects and places associated with these traditional cultural expressions. The focus of this study on intangible cultural heritage includes Balin Opera, Jinghe Opera, and Xiang Opera. Lifelong education

##### **1.4.2 Lifelong Education:**

Lifelong education refers to the total sum of various types of education that individuals receive throughout different stages of their lives, representing a unified integration of different educational forms. Essentially, lifelong education refers to continuous learning throughout a person's life, from cradle to grave. The concept of an

online learning center perfectly aligns with this idea, as it removes the limitations of time and location, offering flexibility for individuals who engage in lifelong learning. This study focuses on lifelong education for the people of China.

### 1.4.3 Online Learning Center

Online Learning Center: An online learning center refers to a platform that provides internet-based learning resources, tools, and support, with the aim of offering an efficient and flexible learning environment for learners of diverse backgrounds and needs. In this study, the online learning centers examined include platforms such as NetEase Open Course, MOOC, iCourse, Xuetang Online, and Wisdom Tree.

## 1.5. Thesis framework

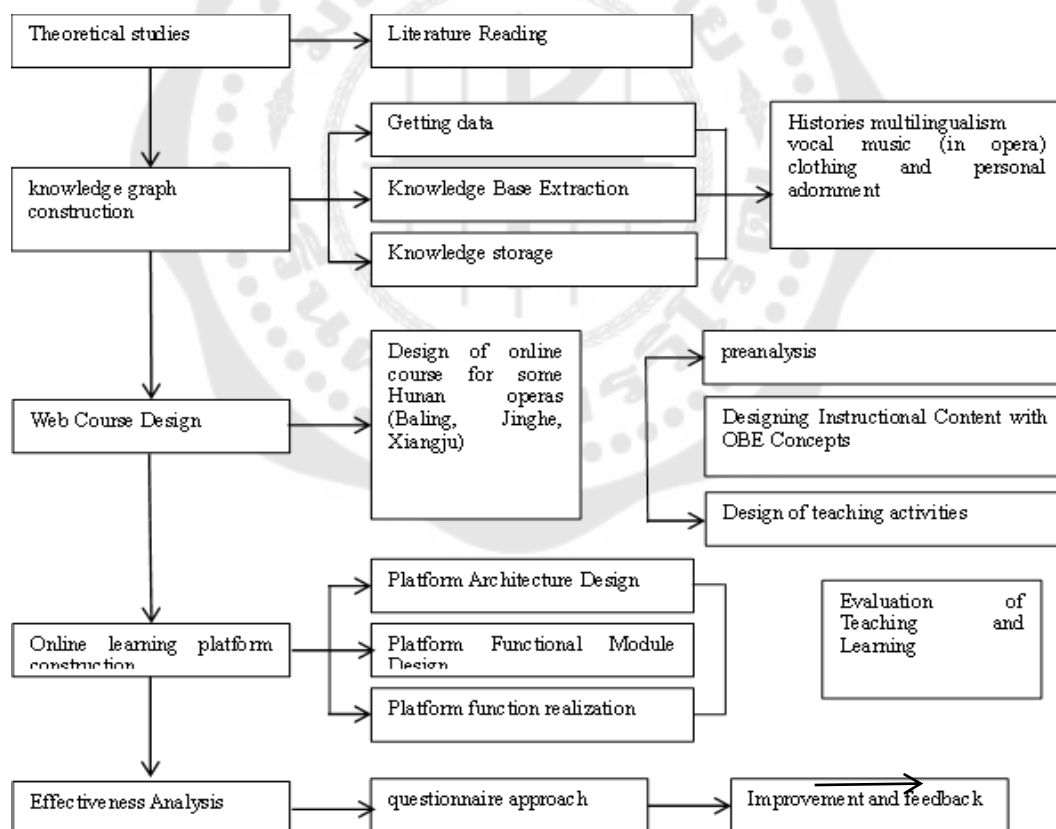


Figure 1 The research framework diagram illustrates how Hunan opera intangible cultural heritage and online learning centers can be combined under the concept of lifelong education.



## CHAPTER 2

### LITERATURE REVIEW

Based on the knowledge base of the intangible cultural heritage of Hunan opera, the literature, theory, principles, and research related to the construction of some opera intangible cultural heritage and opera curriculum design and online platforms in Hunan are reviewed. The contents introduced in this chapter include the following:

#### **2.1 Documents related to the intangible cultural heritage of some operas in Hunan**

##### **2.1.1 Baling Opera**

Also known as "Baxiang Opera," it represents the traditional opera of the Xiangdong region and holds a significant position among the local opera genres in Hunan Province and across China. It serves as a "living fossil" for studying the history, culture, and folk customs of Yueyang, as well as a valuable resource for exploring the evolution of Chinese opera and the formation and development of regional opera genres. In 2006, the State Council of China included it in the first batch of national intangible cultural heritage representative protection projects, under the project code IV-34.

Baling opera has rich kinds of dramas, unique language, performances, melody, and other artistic characteristics. It reflects people's lives, displays strong local characteristics, and has important artistic value. In addition, Baling opera combines national culture and opera art, which provides rich information for the study of Chinese opera, enriches the historical process of the development of Chinese opera, and has precious academic value. At the same time, Baling opera has also enriched the entertainment and cultural life and spiritual and cultural life of the majority of the people, which has important social value.

Baling opera is mainly spread in Yueyang City, Hunan Province and surrounding areas of China. Because Baling Mountain is in the center of Yueyang City, Baling Opera is often referred to as Yueyang Baling Opera or Yueyang Opera. In Yueyang City, Baling Opera is a very important art form, which has been widely inherited



and developed. In recent years, Baling Opera has relied on schools and used classroom teaching to raise the awareness of traditional culture and ethnic folk music among teenagers and youth groups, and expand the coverage of inheritance and protection. The School of Arts of Hunan University of Technology once opened a club of Baling opera to let students major in music learn Baling opera; Yueyang Vocational College of Ethnicities invited Mr. Chen Xiangyuan, an expert in Yueyang folk culture, to give lectures on Baling operas on several occasions; Qianming Temple Primary School in Yueyang City carried out the activity of "Baling opera into the classroom" and invited Baling opera artists to perform their acting skills (Yang , 2011). Ethnic cultural resources are introduced into school education and entered the classrooms of primary and secondary schools and even universities in the form of lectures or interest classes. Yueyang has a special Baling Opera Group and Performance Theater, which provides a good platform for the performance and inheritance of Baling Opera. In addition, Yueyang City holds Baling opera exhibitions, competitions, and related cultural activities from time to time to promote the dissemination and promotion of Baling opera. In addition to Yueyang City, Baling Opera has a certain inheritance and circulation in other parts of Hunan Province, especially in the areas bordering Yueyang City in Hunan Province, such as Changde, Yiyang, Zhangjiajie and other places. In addition to Yueyang City and surrounding areas in Hunan Province, the dissemination and performance of Baling opera also take place outside Hunan Province. Some Baling drama troupes and artists will perform and tour activities nationwide, so that Baling opera can be spread in a wider region. In addition, Baling opera also has a certain degree of international performance and dissemination. (Yang, 2011).In international cultural and artistic exchange activities, Baling opera groups or artists often participate in the performance or display of Baling opera to spread the traditional opera culture of Hunan, China to the world. This approach also helps to make more people understand and understand Baling Opera.

Regarding the literature on Baling Opera, the author searched through the Journal Network and found the following articles: Chen Xiangyuan, Associate Researcher of Yueyang Cultural Relics Management Office, published a paper "A Brief Discussion on Yueyang Baling Opera", which summarizes the basic content of Baling Opera (2007); Fu Xianli's master's thesis "Baling Opera Music Analysis" of Hunan Normal University, mainly analyzed the various components of Baling Opera, and compared the musical art of Baling Opera and Han Opera(2007). Yang Ting's master's thesis "Research on the Artistic Characteristics and Protection and Inheritance of Yueyang Baling Opera" of Hunan Normal University starts from the geographical, economic, human history and other factors and development process of Baling Opera, focus on the analysis of its artistic characteristics, and explore effective measures for its protection and inheritance(2011); Song Weidong's paper "Artistic Characteristics of the Stage Image of Baling Opera" of Yueyang Baling Drama Troupe discusses the characteristics of the stage of Baling Opera(2010); in addition, there are also some articles, including the author's early publication of research on the artistic characteristics and inheritance of Baling Opera. But overall, there is still a lack of theoretical research on Baling opera.

Regarding books on Baling Opera, through collection, it has been found that the main books on Baling Opera currently available are: "Baling Opera Music Collection Group" led by Ren Shungeng, which compiled four volumes of "Baling Opera Music Integration" in 1982; Wu Zhaofeng's edited book "Hunan Volume: Integration of Chinese Opera Music" (1990) and another work by Tang Chunzhi "Integration of Chinese Opera Music Volume: Hunan Volume: Yueyang Volume" provide a detailed introduction to the music of Baling Opera and provide rich examples of scores(1997). Yuan Zhangai and Chen Xiangyuan compiled the "Annals of Hunan Local Dramas (III): Baling Opera Chronicles"(1989); The "Hunan Volume of Chinese Opera Chronicles" edited by Jin Hanchuan recorded some major events in Baling Opera(1990); In 1983, the Baling Drama Troupe of Yueyang City held a Baling Opera teaching performance, and later compiled and printed the "Baling Opera Teaching Performance Memorial Book"; In 2005, "Discussions on Baling Opera" compiled by the Baling Drama Troupe in Yueyang

City is a comprehensive literary treatise; The book "A Collection of Discussions on Baling Opera" compiled by the Baling Opera Troupe in Yueyang City was published in 2005. It includes articles on Baling Opera that have been seen in books and magazines since the first Hunan Provincial Opera Performance in 1952. It was not until then that Baling Opera began to be summarized in words, to understand the ideological and artistic aspects of the play, and to reflect on issues related to music, language, and other aspects. The articles included in this book are mainly divided into four categories: plays, performances, music, and language. It is a comprehensive literature that comprehensively discusses Baling opera.

### 2.1.2 Jinghe Opera

Jinghe Opera is a traditional local opera of Hunan Province, China, named after its prevalence along the Jinghe section of the Yangtze River. With a long history, it originated during the Yongle period of the Ming Dynasty and reached its peak of prosperity in the Qing Dynasty. The vocal style of Jinghe Opera is characterized by its powerful, resonant, and majestic qualities. In 2006, the State Council of China included it in the first batch of national intangible cultural heritage representative protection projects, under the project code IV-35.

Jinghe Opera, as a local opera of Chinese opera, has an important status and unique regional characteristics in the Yangtze River Basin. It is mainly popular in Jingmen City and its surrounding areas, including Zhongxiang, Jingshan, Shayang and other counties and cities. The name of Jinghe Opera comes from the Jingjiang River, which has a long history of development and spanned centuries. Jinghe opera, which originated in the Ming Dynasty, may be like Han opera and other dramas, and is in a state of mutual exchange and reference. Entering the Qing Dynasty, especially during the Qianlong and Jiaqing period, Jinghe opera began to form its own characteristics (Liu, 2008). The artists have absorbed the characteristics of Pei Huang, Kunqiang and other operas, and gradually evolved distinct local dramas (Yi, 2015). At the end of the Qing Dynasty and the beginning of the Republic of China, the development of Jinghe opera entered a new stage, which began to become popular and widely spread.

Performers usually perform in fairs, temple fairs and various civil society activities, which has become an important part of the entertainment life of ordinary people (Sun,2005).

The stage language of Jinghe opera is mainly Jingzhou spoken Helizhou Mandarin, and the singing tone is high, loud, and magnificent. Jinghe opera's appearance speech is the inner and outer eight pieces of kung fu, and the "internal eight pieces" kung fu refers to the character's inner emotions such as joy, anger, sadness, joy, shock, doubt, infatuation, drunkenness, etc.; "outer eight pieces" kung fu refers to eight external formal exercises such as cloud hands, standing stalls, kicking, kicking waist, waist, horses, arrow steps, crotch swinging, lower plate, etc (Chen,2019). In terms of the performance characteristics of Jinghe opera, it integrates a variety of opera elements and forms its own unique artistic style. In terms of singing, it is famous for its clear and gentleness and local characteristics, and most of them are performed in local dialects. Jinghe opera pays great attention to the blend of singing and reading, through which the plot and emotions are fully displayed (Su,2021)..At the same time, in terms of musical accompaniment, two-string, drums, suona and other musical instruments are widely used, so that the whole genre also shows a unique style in rhythm and music. In terms of the content of the repertoire, Jinghe opera is often based on historical stories, folklore, social life, etc., which makes the repertoire not only rich and diverse, but also close to people's lives and easy to be accepted and loved by the audience (Liu, 2008).. The performance style of the play is concise and vivid, and pays attention to the delicate portrayal of movements and expressions, making the characters full and touching.

In the 1930s and 1940s, Jinghe Opera ushered in a golden age of its development. At that time, many famous Jinghe opera artists and troupes continued to emerge, and many excellent repertoires were widely sung. However, with the changes in the social environment after the founding of New China, Jinghe opera, like many traditional operas, faces huge challenges. During the Cultural Revolution, Jinghe opera was impacted, many traditional plays were banned, and many actors were also affected. After the reform and opening up, although a certain degree of vitality has been restored, the overall situation is still facing the shrinking audience base and the loss of

traditional skills (Sang&Shi, 2019)..With the changes of the times and the impact of modern entertainment methods, the living environment of Jinghe opera is becoming more and more severe.

Jinghe opera has a long history, and there are still many precious original music cards, hall songs, percussion scores, etc., which have high academic research value in linguistics, folklore, and the history of national music. However, under the background of modern society, the inheritance of Jinghe opera faces many difficulties and challenges (Su,2022). First, the shrinking of the traditional audience has a direct impact on the protection and inheritance of Jinghe Opera. With the rise of modern media and entertainment forms, the attraction of traditional opera has declined, especially among the younger generation, where interest in traditional art forms such as Jinghe opera is insufficient. This not only reduces the number of audiences, but also affects the box office revenue and the livelihood of Jinghe opera artists. Secondly, with the gradual reduction of the older generation of artists, Jinghe Opera is facing the problem of insufficient skill inheritance. The dissemination and learning of art take time and environment, but at a time when the pace of life is accelerating and the economic pressure is increasing, there are relatively few young people who devote themselves to traditional art, which leads to the lack of Jinghe drama talents. Four of the five Jinghe opera troupes in Hunan have been disbanded or disintegrated, leaving only one Jinghe opera troupe in Li County still struggling to support. As a constituent branch of traditional Chinese opera culture, Jinghe Opera carries regional cultural characteristics and local history. It has witnessed the changes of local society and the development of folk art, and is an important part of intangible cultural heritage. Under such circumstances, it is urgent to rescue and protect Jinghe Opera.

To protect and inherit this precious cultural heritage, the government and all sectors of society have begun to pay attention to the protection of Jinghe Opera in recent years. Jinghe Opera has been included in the list of intangible cultural heritage, and many places have begun to promote activities such as opera on campus, which is committed to cultivating young people's interest in traditional opera art (Gao, 2022). The

troupe and artists of Jinghe Opera also actively participate in performance and exchange activities, hoping to let more people understand and love this traditional art through modern performance forms. Although Jinghe Opera still faces many practical challenges, through the unremitting efforts of academic and industry people and the support of the local government, its future development is worth looking forward to. As an art form carrying regional culture and national emotions, Jinghe Opera is expected to continue to write a new chapter in the context of cultural diversity and the protection of human intangible cultural heritage.

Regarding the literature of Jinghe Opera, the author finds that a total of 43 documents have been retrieved on the Internet by searching for the keyword of "Jinghe Opera". The small number shows that the research in this direction has not been deepened, including 34 academic journals and 4 master's theses, 1 book and no doctoral thesis. The author lists some documents here. In the article "The Evolution of the Voice of Lizhou Jinghe Opera and Its Singing Characteristics" (2008), Liu Youjun discussed in detail the evolution of the sound cavity of Lizhou Jinghe Opera and its unique singing characteristics. In the part of the evolution of the Jinghe opera in Lizhou, Liu Youjun systematically tracked the development process from the origin to the present. In the process of this development, Jinghe Opera has absorbed a variety of characteristics of different regional cultures and gradually formed its own unique music style. The article introduces in detail the external influences of Jinghe Opera in different periods in history, and how these effects affect the voice and performance style of Jinghe Opera at different historical stages. In the special part of Jinghe opera in Lizhou, Liu Youjun deeply discussed the unique singing style of Jinghe opera. The article elaborates in detail from three aspects: "the tone of the voice", the "southern part of the north cavity" and the "half side of the south side" respectively. Among them, "the tone" reflects the freedom and change of the melody of Jinghe opera, which is not only exciting and high-spirited. Othersides, there are also soothing and peaceful paragraphs, and the changeable melody is full of expressiveness. The "Northern Southern String" reflects the mixing of Jinghe opera in combining northern and southern artistic elements,



which not only shows the boldness of northern opera, but also shows the delicateness of southern string music. Finally, the singing of "half side" on the south road has a distinct local color, which represents the unique style of Jinghe opera singing in the southern region, and the unique singing skills leave a deep impression on the audience. Through the review of this literature, we can see that the Jinghe Opera in Lizhou has shown a strong regional and historical nature in the process of vocal evolution, and its singing characteristics also reflect the innovation and development of local opera in the inheritance. The artistic charm and cultural value contained in Lizhou Jinghe Opera itself is worthy of our in-depth research and protection, in order to better inherit and promote this theatrical art form.

In the article "Classroom Teaching Design of Jinghe Opera in Local Drama" the author Chen Xiaoqian discussed the possibility, methods, and practical cases of introducing Jinghe Opera into music teaching in middle schools (2009). In the article, Chen Xiaoqian emphasized the importance of advocating the integration of local culture in the new curriculum reform, as well as the teaching content of traditional music in compulsory education and general high school music curriculum standards, and further proposed that it is of great significance in promoting and inheriting Chinese traditional culture in music teaching. With its characteristics of performance, singing and local art form, Jinghe Opera is very suitable as the teaching content of middle school music courses. It can not only enrich classroom teaching, but also help cultivate a new generation of listeners and inheriting talents of traditional culture. The introduction part of the article mainly analyzes the research status and feasibility of integrating Jinghe opera into the middle school classroom, and clarifies the purpose and significance of the research. Then, the author chose the appropriate philosophy of music education as the theoretical basis, and built an overall framework of teaching design around the teaching goals and requirements, course type design ideas, textbook content selection, etc. In the presentation of the results, Chen Xiaoqian elaborated on three different classroom teaching design schemes, namely, "aesthetic single type", "practice single type" and "aesthetic practice comprehensive type". These three types of course types are

designed to closely integrate Jinghe opera with music teaching through specific repertoire and singing appreciation learning. Through specific classroom teaching design cases, the author shows the practical application and effect of this innovative teaching method, and provides feasible suggestions on how to inherit local traditional culture in music courses. In terms of research methods, the article adopts a variety of research methods such as literature research method, investigation experiment method, induction summary method, etc. to ensure the scientificity and practicality of the research results. To sum up, Chen Xiaoqian's research provides a theoretical basis and practical guidance for how to successfully integrate local dramas into the curriculum design and implementation of middle school music classrooms, and provides an important reference for the innovation and development of traditional cultural education.

### 2.1.3 Hunan Opera

Xiang Opera, also known as Hunan Opera, is one of the traditional opera genres of Hunan. The performing arts of Xiang Opera are characterized by their sincerity and naturalness, with a strong emphasis on the authentic expression and emotional experience of the actors. In terms of singing, recitation, acting, and combat (i.e., vocal performance, spoken dialogue, acting, and martial arts), Xiang Opera has its own unique interpretive style, which enables it to hold a prominent position among other forms of Chinese opera. In 2006, the State Council included Xiang Opera in the first batch of national-level intangible cultural heritage representative protection projects, with the project number IV-13.

The origin of Hunan opera can be traced back to the late Ming and early Qing dynasties. At that time, the early form of Hunan drama, represented by folk songs such as chicken-catching opera and lotus falling, began to appear. After long-term development and artistic integration, from the end of the 19th century to the beginning of the 20th century, Hunan opera gradually formed a relatively fixed artistic style and performance system, becoming the main form of opera in Hunan. Hunan opera mainly uses Hunan dialect to perform, especially the dialect based on Changsha dialect. (Chen, 2003) In addition to its unique words and gongs and drums accompaniment,



Hunan opera has a distinct local color. The performing art of Hunan Opera is good at sincerity and nature, and the performance of actors pays attention to the true expression and experience of feelings. It has its unique way of interpretation in singing, reading, doing, and playing (singing, reading, performing, martial arts), so that Hunan opera occupies a place in the opera family. The character system of Hunan Opera is similar to that of Peking Opera, which is mainly divided into five categories: Sheng, Dan, Jing, Mo and Ugly. Among them, the raw horn includes Zhengsheng, Xiaosheng, Huafacheng, etc.; Danjiao includes Qingyi, Huadan, etc.; Jingjiao includes Laoshengfan, Redface, etc.; the end includes Laodan, etc.; the clown is responsible for providing humorous elements in the drama (Wu, 2021). The singing of Hunan opera is very rich, such as Dadan cavity, Xiaosheng cavity and flower face cavity. Based on singing, Hunan opera has absorbed many characteristics of other opera art and integrated into a unique singing style with a strong Hunan style (Li, 2020). The accompaniment instruments of Hunan opera include not only traditional Jinghu, Erhu, flutes, gongs, and drums, but also local musical instruments in Hunan, such as Xiangqin, Xiangdi, etc. The composition of the band is also different from place to place, reflecting the diversity of regional culture. The repertoire of Hunan opera mostly comes from historical stories, folklore, and real life, such as Fishing and Killing Home, Broken Bridge, Second Entering the Palace, etc (Zhao, 2018).

Hunan opera is not only an important part of Hunan culture, but also a valuable treasure of the traditional culture of the Chinese nation. Today, when traditional culture is receiving more and more attention, Hunan Opera, as a unique local drama art, undertakes the important task of inheriting and promoting traditional Chinese opera culture. With the changes of society and the development of culture, Hunan Opera is also facing the challenge of inheritance and innovation. It constantly seeks to integrate with modern aesthetics while retaining traditional characteristics, in order to carry forward in the new era.

Regarding the literature of Hunan Opera, the author searched for 305 academic journals, 13 dissertations and 3 books on CNKI. The author lists some documents here. The master's thesis "Investigation and Research of Changsha Xiang Opera Protection and Inheritance Center from the Perspective of Ethnic Music" written by Yi Qin of Hunan Normal University (2021), the article is based on the "three-dimensional mode" of Timothy Rice, and takes Changsha Xiang Opera Protection and Inheritance Center (later referred to as "Center") as a case. The historical composition of the "center", the maintenance of social relations and the positive impact of personal contributions on the development of the "center" were deeply investigated, and the historical development stage of the "center" and its characteristics were explained by using relevant literature, dictation of old artists and field investigation materials. The article sorts out the development process of the "center" and discusses the relationship between society and politics and the development of the "center". From the perspective of national musicology, it analyzes the changes in the context of inheritance and the penetration and strengthening of state power. The influence of cultural inheritance and development of the center.

The academic journal includes "Research on the Development of School-based Courses in Colleges and Universities Based on Local Cultural Inheritance - Taking Hunan Opera High-City Music as an Example" in the "Drama House" published on October 23, 2015. Taking Hunan opera high-lumen music as an example, this paper analyzes the development and research of elective school-based courses in colleges and universities from the perspective of local cultural inheritance and puts forward corresponding improvement strategies (Cao, 2015). "Research on Hunan Opera in the Perspective of Oral History" published in the Journal of Social Sciences of Hunan Normal University on July 25, 2017. From the perspective of the research of oral history, the article starts from the typical figures and historical events of oral Hunan opera, confirms and analyzes oral historical materials and historical records and related research, and uses a case certificate. , explore the historical origin, branch distribution, transmission and development direction of Hunan opera, strive to reflect the development details

behind Hunan opera, and provide a data foundation for the historical appearance of Hunan opera (Yang&Wu, 2017). The "Development of Hunan Opera in the Music School-based Course of Higher Vocational Colleges" in "The Sound of the Yellow River" published on June 15, 2020 - take the practice of "Opera on Campus" of Hunan First Normal University as an example. The article briefly describes the Hunan music school-based course, and analyzes the case of the Hunan opera music school-based course, coming up with the course design of Hunan Opera. (Yi, 2020)

## 2.2 Theory related to the establishment of a database

Database construction refers to the whole process of planning, creating, and managing the database. A database is a system for storing and organizing data, which can be in electronic form (such as MySQL, Oracle, SQL Server, MongoDB, etc.) or in physical form (such as paper record files) Eze et al(2014). The purpose of database construction is to provide a reliable, efficient, and convenient way for users to retrieve, update and manage data(Chassiakos & Sakellariopoulos, 2008).

Database construction generally includes the following steps:

1. Requirements analysis: Understand and collect the needs of enterprises or organizations for databases, such as data storage, retrieval, security, backup, etc.
2. Data modeling: Create data models, including logical models and physical models, determine the relationship between data, design table structures, fields, data types, etc.
3. Select the database type: Select the appropriate database type (relational database or non-relational database) and database management system (DBMS) according to the project requirements and technical architecture.
4. Database design: design the structure of the database according to the data model, including creating data tables, defining primary and foreign keys, indexes, etc.
5. Data migration and data entry: If the system is a replacement for the existing system, data needs to be migrated from the old system; or initial data entry is required.

6. Function development and interface implementation: create the logic of data operations (such as stored procedures, triggers, API interfaces, etc.) so that users can interact with the database through front-end applications.

7. Testing and optimization: Test database performance, security and robustness. Optimize the database according to the test results to ensure that it can run efficiently and meet business needs.

8. Deployment and maintenance: Deploy the database to the production environment and carry out maintenance operations, including monitoring database performance, backing up and repairing, updating, and upgrading the database system.

Database construction is a complex process involving different technologies and professional knowledge. To ensure that the database can meet long-term business needs, the design and construction of the database usually requires the close cooperation of database administrators (DBA) and software developers (Burns, 2011).

In the field of database design, Zhang Lu and Ma Li's work Database Design (2007) provides a systematic methodology to guide the creation and management of databases. The summary of this article points out that the database is designed to meet the information storage and processing needs of specific organizations, and considers the operating environment of the database and its unique design elements. The design process follows a standardized approach and involves the entire development cycle of the database, from the construction of data models to the development of specific applications. Research shows that the standard database design process includes six main stages (Miao Xuelan, 2001):

1. Requirements analysis: at this stage, we have an in-depth understanding of the information and processing needs of the unit, collect relevant data and user needs, and determine the goals that the database system should meet;

2. Conceptual structure design: convert the information collected in the requirements analysis stage into a high-level data model, and usually use ER diagrams (entity-relationship diagrams) or UML diagrams to express the conceptual model;

3. Logical structure design: based on the conceptual model, set The logical model of the database determines how the data is organized in the database management system (DBMS), involving the determination of table structure, fields, data types, indexes, and relationships, etc.

4. Physical structure design: optimize the storage structure of the database for specific database management systems, including the organization of data files, the physical implementation of indexes and the optimization of access paths;

5. Database implementation: apply conceptual design to the actual environment, including building databases, creating data structures, writing data operations and accessing applications;

6. Database operation and maintenance: follow-up work such as monitoring, performance tuning, fault recovery and security management after database deployment to ensure the stable, safe, and efficient operation of the database.

According to this article, database design is not only a technical process of building a database structure, but also a continuous investment in the whole life cycle of the database. From preliminary planning to daily operation and maintenance, database designers are required to have corresponding theoretical knowledge and practical experience. It can be seen from Database Design that Database Design refers to constructing the optimal database mode for a given application environment, establishing a database mode, and establishing a database and its application system, so that it can effectively store data and meet the application needs of various users. In the Establishment of Medical Information Database and Data Mining written by Qu Jinghui, Liao Qimei, Xu Weizhong and Chen Hanyong (2001), the establishment of the database is divided into three parts, the first part is the question; the second part is the establishment of the database, which can be divided into thematic extraction, system boundary determination, and the theme. Six steps such as identification, data organization, data acquisition and integration, and establishment of applications; the third part is data mining, which can prove the authenticity of the collected data and

correct the wrong data. The author emphasizes that ai technology and various analytical methods can be used to operate.

## 2.3 Research Status of Online Learning Center

### 2.3.1 Learning Center

The term "Learning Centre" is used to describe a learner-centered educational environment in which resources, facilities and support are integrated to promote students' spontaneous learning. It is a physical or virtual space where learners can be educated through various forms of teaching materials, technologies, activities, and professional guidance (Pan et al., 2010). e. The concept of learning center emphasizes the importance of personalized learning experience, learner autonomy, and self-seeking knowledge and skills development (Hu et al., 2010).

The concept of learning center originated from the educational changes in the 20th century, when educators and researchers began to focus on how to better promote the absorption of knowledge and meet diversified learning needs (Hou&Wang, 2023). With the development of learning theory, especially the popularization of constructivist theory, the learning center came into being. Constructivist theory holds that knowledge is not passively accepted, but is actively constructed by learners when interacting with the environment (Kalpana, 2014). Well-known tools and implementation examples of learning centers include library learning spaces, school learning support centers, writing centers, mathematics laboratories, electronic resource rooms and virtual learning environments (Head, 2016). The Learning Center was first founded by the British Open University in the 1960s to facilitate students' access to materials, use resources, keep abreast of students' learning needs and difficulties, and build a bridge between teaching and learning (Bell, 2015).

Regarding the functions of the learning center, Liu Yongquan and others (2014) positioned it in teaching, enrollment, learning support services, management, seminars, experience, etc. Ding Xingfu, a distance education scholar in China (2006), once defined the learning center in "Research on Distance Education": "The learning center is a grassroots organization of the student learning support service system built



by distance education colleges in various communities, the activity base of distance learning and distance learning, a two-way interactive channel of distance education teaching information and a distribution center of teaching resources, and a node and terminal for the radiation extension of distance education information technology facilities to the community." This definition summarizes the status and role of learning centers in distance education.

As technology progresses, learning centers can also be manifested as online platforms or e-learning environments, such as online course libraries, learning management systems (LMS) and applications that provide cloud learning experiences. These virtual learning centers make personalized learning and distance education more feasible, broaden the boundaries of education, and enable learners to access educational resources anytime and anywhere (JANTHAPASS, 2024). The author retrieved some of the documents through CNKI: "Architecture of the Future Learning Center of Open University - Design of Intelligent Learning Environment Based on PST Framework" written by Liu Yongquan and Liu Haide (2014) respectively introduces the details of the PST framework and significance, learning center, smart classroom, and classroom layout, and combines the development of cloud classrooms, smart space, and new media technologies to build an ideal learning center. In addition, Zhou Xiaozhang's (2017) article "Research on the Construction of Integrated Teaching Model of Online Education Platform + Learning Center" mainly takes the typical of online education in China as the research object, and systematically analyzes the main composition of resource sharing, communication mode, teaching mode, live broadcast type, interactive communication, and other elements of these online education platforms, as well as their operation rules, law, and operation mechanism. With the accumulation of actively building an online teaching platform, build a new model of online education platform + learning center integration based on the Internet, big data, and cloud computing. And actively explore the new concept of smart classroom, try to connect with the online-offline integrated learning mode, which plays a role in learning from and promoting the integration of China's online education platform and learning

center. Lan Weidong's article "Development of Teaching Service System of Distance Education Local Learning Center" mainly uses broadband distance education information network(2003), interactive video live classroom, multimedia teaching platform and radio and television network to design the remote teaching service system of local learning center. The results of the remote teaching practice of the implementation of the "Central Electric University and Training Model Reform and Open Education Pilot" project of Nanning Vocational and Technical College (Nanning Electric University) show that this system can provide teachers and students with WEB, DNS, video on demand, E-mail, technical support, training, remote broadcasting, download websites, Real-time and non-real-time remote teaching services such as two-way video live classrooms. The author hopes that through the study of the above literature, he can build a learning center that matches some operas in Hunan.

### 2.3.2 Online Learning Center

The reform of the education system and the progress of computer network technology have promoted the formation and development of online teaching models, and online learning has gradually formed and matured on this basis. With the development of the times, the shortcomings of traditional teaching methods are becoming more and more obvious, and online education can make up for the shortcomings of traditional teaching. It is timely, interactive, and collaborative, and can better meet the needs of learners in the information age(Sadeghi, 2019). Online teaching originally came from the Khan College founded by Bengali-American Salman Khan. He uploaded his teaching videos to the Internet through network technology. Interested parties can log in to the website to watch his teaching videos(Coman et al,2020).

Abroad, many countries have paid great attention to the development and use of online teaching since the 1990s. The first countries to carry out online teaching and distance teaching are the United States, Australia, Canada, etc., which have promoted the development of various online learning platforms to a certain extent(Singh et al,2021). The online learning center is an Internet-based education platform that



combines a variety of digital resources and learning tools to support and enhance the distance education experience(Siemens et al,2015). Unlike the traditional face-to-face learning environment, the online learning center provides students with a flexible and accessible learning method, embracing the innovation brought by globalization and technological development to education. It has the characteristics of flexibility, diversity, and interactivity, and has high adaptability to higher education and continuing education and vocational training.

Online education strengthens the educational function, can break through the limitations of time and space, and meet the personalized needs of learners (Gai &Huang, 2022). The emergence of MOOC in 2010 has greatly promoted the development and reform of online education in China. The MOOC College of Guoke.com provides high-quality courses for many Chinese users to discuss and communicate on learning issues. After cooperating with EDX, Peking University signed a cooperation agreement with COURSERA and successively released online courses on two platforms. Tsinghua University independently developed the MOOC system "School Online", in order to improve the quality of online teaching, different styles of online learning platforms such as DingTalk Online Classroom and NetEase Cloud Classroom have also been applied to online learning.

Regarding the platform design, the author retrieved some documents through CNKI: in the master's thesis "Research and Application of Online Learning Platform Recommended Based on Personalized Learning Paths"(2003) abbreviated by Cheng Qianqian of Taiyuan Normal University, the problem of personalized learning path recommendation was analyzed from the perspective of the characteristics of learners and learning resources, and through modification Enter the binary particle swarm algorithm to optimize the personalized learning path recommendation model, and then improve the accuracy of personalized learning path recommendation. There is also the master's thesis "Research and Design of Zhuang Cultural Resources Online Learning Platform Based on Knowledge Atlas" by Lin Weilian of Yunnan Normal University, from the construction of knowledge map and design in the field of Zhuang

culture(2023). Research is carried out in four aspects: Zhuang culture online course, design and realization of Zhuang cultural resources online learning platform based on knowledge map, Zhuang cultural resources online learning platform application and effectiveness analysis. In the construction of the platform, first analyze the requirements of the platform to ensure that the platform is feasible and has perfect functions; then design the platform architecture; next divide and design the functional modules of the platform; and finally complete the platform's design and implement. Huang Jiaqi of Guangdong Technical Normal University's master's thesis "Research on the Development of Quanzhou Puppet Show Secondary Vocational School-based Course"(2023), takes students majoring in music performance in Quanzhou Vocational College, Fujian Province as the research object. Using literature research method, interview method, investigation and research method, case study method and other methods to investigate and interview music teachers, music major students and non-genetic inheritors of secondary vocational schools. Starting from the feasibility of school-based curriculum development, it discusses the process of school-based curriculum design and development and research conclusions; Shi Xuewei's master's thesis "Development and Practice of Luoyang Henan Opera Research Course - Relying on Luoyang Vocational and Technical College Research Base of Luoyang Vocational and Technical College"(2021), through on-site investigation, research travel policy text review, and study of music curriculum standards, Luoyang Vocational and Technical College of Traditional Chinese Opera was selected as the research base, and middle school students were selected as the research objects of Yu Opera. A scientific and complete set of Yu Opera research courses was developed and designed.

Regarding the online learning center, the author retrieved some of the literature through CNKI: Zhou Xiaozhang's article "Research on the Construction of the Integrated Teaching Model of "Online Education Platform + Learning Center" - Analysis and Thinking Based on the Hujiang Teaching Model"(2017), the article takes Hujiang, a typical platform for domestic online education, systematically analyzes the composition, characteristics and operation mechanism of its online school resource on-demand

mode, online school interactive live broadcast mode, on-demand CC classroom mode, live broadcast CC classroom mode, and builds an integrated teaching model of "online education platform+ learning center" on the basis of responding to the existing problems of domestic online education platform. This model is guided by Internet educational thinking, supported by cloud computing, big data, mobile Internet, Internet of Things, learning analysis and other technologies, teaching activities based on online education platforms and teaching activities based on learning centers as the main body, "smart classroom" as the docking method, and "online-offline-online" or "offline-offline-offline" as the implementation path, aiming to provide effective guidance for the integration and implementation of online teaching and offline teaching. In Huang Xiao'e's Research on the Construction of the Teaching Quality Monitoring System of Online Learning Center(2019), in view of the important position of online learning center teaching in college education, she analyzes some problems existing in the existing online learning center teaching quality monitoring system, puts forward the purpose and construction principles of implementing the monitoring system, builds and improves the teaching quality monitoring system of our school's online learning center from the aspects of quality monitoring team, high-level online learning center instructors, joint supervision group, information channel, etc. Finally, it expounds the long-term and complexity of the implementation of the quality monitoring system. And based on the "Online Learning Platform Design Planning for New Technologies" jointly made by Lang Yingying, Ren Yan and Gong Wentao(2017), the article analyzes and summarizes the new trends of scientific and technological development such as cloud computing, big data mining and mobile learning. Guided by the construction needs of information integration of online learning platforms, it analyzes and summarizes the new requirements and characteristics of the construction of online learning platforms, gives the architectural design based on three-layer functional modules, analyzes the difficulties and key points in the construction process, and provides a little reference for the construction of online learning platform under new trends and needs.

The construction of online learning platform has a wide range of literature, but the research related to some operas in Hunan is not in-depth. hoping that the author's research can contribute to the inheritance of Hunan opera.

## 2.4 Related concepts of lifelong learning

### 2.4.1 Theoretical framework of lifelong learning

The idea of lifelong education began in the 1920s and was first proposed by Paul Langlang in the Introduction to Lifelong Education. After the publication of UNESCO's "Learn to Survive - Education World Today and Tomorrow" and "Education - Wealth Contains in it", it became the concept of the times to guide future education.

Lifelong learning is a new requirement for human beings in the information age. IThe Action Plan for Revitalizing Education in the 21st Century, approved by the State Council of the People's Republic of China in 1988, mentioned the goal and task of establishing a lifelong learning system nationwide by 2010(Chen, 2007); The strategic goal set by the National Medium - and Long Term Education Reform and Development Plan (2010-2020) issued in 2010 is to "achieve basic modernization of education, form a learning society, and enter the ranks of human resource powerhouses by 2020". It requires "to widely carry out urban and rural community education, accelerate the construction of various learning organizations, and basically form a learning society where everyone learns and lifelong learns"(Chen et al., 2012). In 1993, the People's Republic of China first wrote "lifelong education" into the Outline of China's Education Reform and Development. Article 11 of the Education Law in 1995 stipulated that "establishing and improving the lifelong education system" was established as a basic national policy guaranteed by law (Han., 2002). With the gradual introduction of the concept of lifelong learning in China and the extensive development of lifelong learning activities, building a lifelong learning system has also become a basic national policy of the Chinese government.

In his 1975 book 《An introduction to lifelong education》, Lengrand elaborated Lifelong education includes five principle: the need to ensure continuity of education to prevent the loss of knowledge; the fact that educational projects and

methods should be adapted to the specific and pre-existing goals of each community; the shaping of human beings at all levels of education to adapt to a way of life that can accommodate evolution, change, and transformation; the mobilization and use of all means of training and information on a large scale, transcending the traditional definitions of education and the boundaries of the system; and the establishment of a strong link between the various actions (technological, political, industrial, commercial, etc.) in close connection with the objectives of education

Lifelong learning theory advocates that education is a continuous development process within the life cycle, aiming to cultivate the ability of individuals to adapt to the changing environment. This theory breaks through the traditional scope of education and emphasizes that learning takes place at multiple stages and many environments in an individual's life, such as traditional classrooms, workplaces, and digital platforms(Peters & Romero, 2019). Self-driven and self-reflection are important abilities in personal lifelong learning, prompting individuals to constantly examine and acquire new knowledge and skills(Cherylyn, 2020). Lifelong learning theory supports the all-round development of personal ability and promotes social and economic progress. A lifelong learning society not only provides individuals with a way to realize their full-person potential, but also lays a solid foundation for social growth and innovation(Ketschau, 2017). This requires policymakers and educational institutions to ensure that the education system is adaptable and accessible. Considering the rapid changes in society, the concept of lifelong learning is generally regarded as the allocation of social resources in the 21st century. The reliability of education quality assessment and certification mechanism are potential problems restricting the implementation of lifelong learning(Burns, 2020). Only through collective efforts and effective cooperation across the society can these obstacles be eliminated and promote the formation of a sustainable and inclusive lifelong learning culture.

The "Research on the Principles of Micro-Learning Course Design in the Vision of Lifelong Learning"(2013) written by Gu Fengjia of the Development Research Department of Shanghai Open University discusses how micro-learning can meet the

needs of adult learners with the technical support of mobile communication, and discusses the importance of micro-learning curriculum design principles. The research was released by the Development Research Department of Shanghai Open University, highlighting the applicability and development potential of micro-learning in the field of lifelong learning. Micro-learning as an emerging teaching model, with its "short, concise and practical" characteristics, is very suitable for the operating environment of mobile devices, which is convenient for adult learners to use fragmented time to learn. The paper emphasizes the integration of micro-learning and mobile learning concepts, and provides higher efficiency and quality assurance for adult learning. Gu Fengjia pointed out that although micro-learning has made some progress, the research on its curriculum design principles is still relatively backward. By analyzing the relevant theories of mobile learning and the existing curriculum design principles, the paper puts forward the curriculum design principles and elements specifically for micro-learning. These principles and elements are designed to meet the specific needs of adult learners while maximizing the functions of mobile devices. The paper synthesizes the latest progress of mobile learning theory, psychological principles, and education technology, and points out that efficient micro-learning curriculum design needs to consider the organization of learning content, the structure of learning activities and the presentation of learning materials. Effective curriculum design principles should be based on the three cornerstones of user experience, appropriate learning content and technical support. The document also emphasizes the potential of new media technology in promoting adult learning efficiency, and advocates the use of mobile technology to provide learners with learning opportunities anytime and anywhere. Through this research, Gu Fengjia provides a framework for adult learners to effectively use scattered time and learn independently through mobile devices, to improve the convenience and results of learning. Gu Fengjia provided unique insights and innovative ideas for micro-learning curriculum design in the Research on the Principles of Micro-Learning Course Design from the Perspective of Lifelong Learning. These research results have important theoretical and practical value for promoting micro-learning in the field of lifelong



learning. They not only provide guiding principles for curriculum designers and educators, but also expand teaching strategies in the field of adult education, making the learning process in the mobile learning environment more suitable for the needs of contemporary society. And provides new possibilities for adult learning methods.

In the paper "The Essential Characteristics of Contemporary Lifelong Learning Concept and International Development of Its Theoretical Development" co-authored by Wu Zunmin and Xie Haiyan(2004), the concept of lifelong learning is analyzed in depth, aiming to clarify the differences between lifelong learning and lifelong education, and how these two concepts gradually evolve in current academic practice. The paper was published by the Department of Education of the Institute of Basic Education Reform and Development of East China Normal University, showing the importance of lifelong learning in the field of contemporary education and the international dynamics of its theory. The authors first introduced the trend of social attention to lifelong learning, and raised questions about its basic connotation and its difference from lifelong education. By clarifying these two related but different concepts, the paper emphasizes the importance of understanding these basic concepts in guiding practice. This study not only sorts out the historical development of lifelong learning and lifelong education, but also examines their theoretical basis. Special attention is paid to the impact of lifelong learning trends on education policies and educational practices, and explores why the status of lifelong education is gradually replaced by lifelong learning. The article analyzes the promotion and maintenance of international organizations such as UNESCO (UNESCO) and the Organization for Economic Cooperation and Development (OECD). These organizations have strengthened the global emphasis and application of lifelong learning by formulating policy recommendations, funding research projects, and holding international conferences. In addition to the investigation of history and international dynamics, the paper also makes various interpretations of the definition of lifelong learning, revealing the commonalities and differences between different interpretations. In this way, the authors aim to provide a clearer theoretical framework for future lifelong learning practice and research. Wu

Zunmin and Xie Haiyan discussed in detail the essential characteristics and theoretical development of lifelong learning phenomena in their papers, emphasizing the importance of in-depth understanding of these concepts for the implementation of effective lifelong learning strategies. By analyzing the changes of lifelong education and lifelong learning, the paper not only reveals the theoretical changes in the field of education, but also indicates how lifelong learning will continue to shape the future education policy and practice. This research provides valuable advice and guidance for educational decision makers, practitioners, and lifelong learners, and promotes a comprehensive understanding of the importance and complexity of lifelong learning.

#### **2.4.2 Open Course Mode**

The open curriculum model is an educational model that allows anyone to have barrier-free access to educational resources and course content at anytime and anywhere. The main characteristics of this model are accessibility, flexibility, and inclusiveness of the course (Li Qing, Wang Tao, 2012). The open course model is often closely related to online education and distance learning. It uses many information technology means, including but not limited to the Internet, multimedia resources and various learning management systems (LMS) (Lu, 2014). The core concept of the open curriculum model is educational fairness and lifelong learning. The purpose is to eliminate the restrictions on access to high-quality educational resources due to factors such as geography, economy, time, and social background. The world-renowned open course program includes MIT Open Course Ware, which provides a large number of course materials to users around the world for free. Open courses usually include threshold-free access, and users do not need to have a specific academic background or resume requirements to access the course; independent learning, learners can customize the schedule and path, and learn according to their own schedule and learning needs; resource sharing, course materials (including handouts, videos, homework, etc.) can free download or spread through the Internet; highly interactive, on some platforms, learners can participate in online forums, group discussions, and sometimes even interact with course teachers; knowledge co-construction, educational



resources are constantly updated, and often contain contributions and feedback from users around the world to maintain the freshness of content. The open curriculum model with the characteristics of applicability is the product of modern education innovation, which brings complementarity and expansion to traditional classroom teaching, and also provides opportunities for self-improvement for individuals who cannot enter the formal education system. With the continuous progress of technology, the open curriculum model will continue to promote the accessibility and quality of education worldwide.

In Wang Ping's article "New Development and Application of Large-scale Online Open Courses (2013): From cMOOC to xMOOC", it puts forward a key trend brought by the open education resource movement to the development of education in the context of globalization and informatization. This article focuses on the large-scale online open course (MOOC) as an innovative development of the movement and its far-reaching impact on human cultural inheritance and knowledge learning. In the article, Wang Ping classifies MOOC into two models: cMOOC and xMOOC. Based on the relevance learning theory, cMOOC emphasizes the construction and innovation of knowledge, autonomy, and social network learning. xMOOC prefers traditional teaching methods and theories, focusing on the dissemination and replication of knowledge, usually in the form of video lectures, assignments, and tests. It discusses the main characteristics of cMOOC and xMOOC. The characteristics of cMOOC are learner-centered and encourage participants to build and expand knowledge networks by creating content, contributing, and sharing resources. It pays more attention to the learning process and the interactive communication between participants, and uses various social media tools and online forums to promote cooperation between learners. xMOOC is characterized by a tendency to have a more structured curriculum design, teaching fixed knowledge and skills, clear start, and end dates. Scheduled course progress. Video lectures, automated homework scoring and exercises are mostly used to teach the course content. The literature also points out that xMOOC is a new form of MOOC development, which can provide innovative teaching models such as flipped classrooms and independent learning. It provides a variety of support functions for

online learning, including course indexing, evaluation, and recommendation. In addition, xMOOC also provides learning analysis tools to enhance the applicability of the learning system by analyzing a large amount of course data. Wang Ping's research believes that xMOOC has brought new innovations to open education and built a learning ecosystem that includes a technical environment, social environment, and teaching environment. This not only brings refreshing vitality to the field of open education, but also raises a series of new problems that need further research. Through Wang Ping's comparative analysis of cMOOC and xMOOC, we can see that MOOCs represent an important change in the education model in the education category. This model changes the path of traditional learning and promotes more direct and extensive personal contact with knowledge. As a new direction of MOOC development, the xMOOC model has a far-reaching impact on open education and distance teaching. It not only enriches teaching methods, but also improves the quality and accessibility of education. This research provides valuable insights into current and future educational innovations, especially in the field of online learning.

In the doctoral thesis "Research on the Application of Open Courses in the Cloud Computing Environment"(2013), Xu Yuanyuan discusses how open courses can expand their influence with the support of cloud computing technology and bring innovation to teaching models and learning methods since the Massachusetts Institute of Technology launched the open course plan. Although large-scale online open courses (MOOCs) have made significant progress in the sharing and interactivity of teaching resources, the application of open courses in the cloud computing environment still faces some challenges, such as learner interaction, cooperative learning, and effect tracking. This paper aims to solve the above problems. It will build an application mode of open courses from the technical characteristics of cloud computing, and empirically analyze the large-scale real-time interactive learning system in the cloud computing environment. The author analyzes the characteristics of open courses in the cloud computing environment, including real-time interaction between teachers and students, learning effect tracking evaluation, and the ability to support the

access of heterogeneous terminals, and puts forward an open course application model in the cloud computing environment, covering learning support services, learning effect evaluation, knowledge sharing, information technology, Eight dimensions: interactivity, open access, online learning community and sustainability. A large-scale real-time interactive learning platform in a cloud computing environment including open course management, real-time interactive teaching, learning effect evaluation, learning progress management and other modules is designed and realized. Use key technologies such as virtualization, real-time migration, intelligent video, and multimedia retrieval image recognition to give full play to the technical advantages of the cloud computing environment. Based on the real-time interactive learning system, the teaching practice of open courses has been developed and implemented in East China Normal University, and the application of the platform has been evaluated through use case analysis, questionnaire survey and data statistics. This research shows that the application of open courses based on the cloud computing environment can promote learners to use a variety of ways, regardless of time and place, all kinds of terminal equipment can be used for interactive learning. The platform helps to achieve real-time tracking of learning effects and provides technical support for certification credits. Through open courses in the cloud computing environment, learners can carry out mobile and fragmented learning more conveniently, thus promoting the improvement of students' self-study ability and achieving the goal of learner-centered teaching application. Xu Yuanyuan's research has far-reaching significance for the transformation of the field of education. It not only promotes the in-depth utilization of open curriculum resources, but also provides a valuable reference for the progress of learning methods, teaching models and the reform of education management mechanisms in the future cloud computing environment. By combining the application of cloud computing technology with open courses, this report shows how information technology promotes educational innovation and will continue to affect the development of the global educational landscape.

## CHAPTER 3: RESEARCH METHODS

This chapter introduces the research methods. It mainly consists of several parts, including research design, ethical considerations, research participants, research instruments, data collection, and data analysis.

### 3.1 Research Design

This section of the research design consists of two parts: an introduction to the research process and research methods.

#### 3.1.1 Research Process

The construction of a lifelong learning online platform for intangible cultural heritage of traditional Chinese opera in Hunan, including Baling opera, Jinghe opera, and Hunan opera, can be divided into three steps.

##### 1. Analysis of the Necessity of Building a Learning Platform

The necessity of building a learning platform for some intangible cultural heritage in Hunan (Baling Opera, Jinghe Opera, Xiang Opera), and how to break through limitations in designing the platform to allow a wider range of people to meet and understand these opera arts, thereby enhancing public awareness of the protection of intangible cultural heritage, are the important significance of this study.

The study will analyze the necessity of constructing a learning platform for Hunan opera intangible cultural heritage under lifelong education through two survey methods: questionnaire survey and semi-structured interview. The questionnaire survey and semi-structured interviews will focus on the level of understanding of intangible cultural heritage opera culture, the level of interest in intangible cultural heritage opera culture, the level of understanding of some intangible cultural heritage opera in Hunan, the necessity of education and inheritance, the ways to understand intangible cultural heritage opera, learning willingness, favorite content of intangible cultural heritage opera, evaluation of intangible cultural heritage opera, desired teaching methods, acceptance of online teaching, survey situation of online

learning opera, overall view of online teaching effectiveness, knowledge needs of online learning platforms, cognition and demand for intangible cultural heritage opera culture, preference for the duration of opera class hours on learning platforms, preference for equipment used for online learning at home, ability to use equipment for online learning alone, problems encountered by users when using online learning platforms, and the impact of online platform learning on understanding and inheriting opera culture. The degree of assistance A comprehensive investigation will be conducted on the smoothness of data dissemination on the online platform for intangible cultural heritage opera culture, the expected interface design of the online platform for intangible cultural heritage opera culture, the expected functions of the opera intangible cultural heritage art APP, the expected learning forms of Hunan opera intangible cultural heritage, the most important functions on the online learning platform for intangible cultural heritage opera culture, and the cognition and needs of intangible cultural heritage opera culture, in order to obtain real user needs that match lifelong education and achieve user satisfaction after platform design.

## 2.The content of building a learning center

The rapid development of network technology has facilitated the creation of online learning resources, thus promoting the advancement of online learning. For lifelong education, there is a greater need to transition the learning of course content to online courses, a form of learning that is not restricted by time or location. This study investigates the content of learning centers for certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera) through a combination of questionnaire surveys and structured interviews. The study is centered on lifelong learners, with a focus on the learners themselves, and aims to construct a coma. Knowledge Graph Construction Process

### (1) Learning Center Content Construction Process

This paper, in combination with practical needs and the characteristics and structure of the artistic and cultural domain of certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera), selects an appropriate method for

constructing the knowledge graph. The construction process is as follows:prehensive set of online learning center content. a. Define Data Schema

By consulting relevant literature and reference materials, this process involves summarizing and analyzing the artistic characteristics and structural features of certain traditional operas in Hunan Province, specifically Baling Opera, Xiang Opera, and Jinghe Opera. The scope of data for these Hunan operas is identified, and the conceptual types of knowledge associated with these operas are categorized and systematically organized. Based on this analysis, a comprehensive definition of the data schema is established.

b. The Data Collection for the Artistic and Cultural Domain of Selected Hunan Operas

Based on the determined artistic and cultural scope of Hunan opera (Baling opera, Xiang opera, Jinghe opera), obtain relevant data from literature books and websites, and construct a database of Hunan opera (Baling opera, Xiang opera, Jinghe opera)

c. Knowledge Extraction from the Artistic and Cultural Domain of Certain Hunan Operas (Balin Opera, Xiang Opera, Jinghe Opera)

This study focuses on the data from the corpus of the artistic and cultural domain of certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera). Relevant methods are applied to extract knowledge from the collected data, and the extracted results are then organized and processedan operas knowledge map construction process

## (2) The Design Process of Learning Center Content

The design process of the learning center content involves the following four main steps:

a. Determining the Target Audience and Objectives

Learners are the main subject and focus of the entire teaching process, and their individual characteristics influence the teaching process. In this study, the learning content for certain Hunan operas (Balin Opera, Xiang Opera, and

Jinghe Opera) is designed for the lifelong education learner group. It aims to serve users and learners of different genders, ages, professions, etc.

#### b. Clarifying the Teaching Model and Highlighting Teaching Features

When designing the learning center content, it is important to consider both the uniqueness of Hunan opera content and the characteristics of online learning. A comparative analysis of various teaching models is conducted to develop a distinctive and appropriate teaching model. This model aims to provide personalized teaching plans for the learning of Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera), offering a multi-faceted presentation of Hunan opera culture.

#### c. Teaching System Structure and Module Design

The design of a systematic learning module and its framework can enhance students' enthusiasm for learning and improve learning efficiency. In the design of learning content for certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera), the author has identified four key modules: course categorization, course information, video resources, and knowledge graphs. These modules are interconnected, and by navigating through each module, learners can gain an understanding of and engage with the study of Hunan Balin Opera, Xiang Opera, and Jinghe Opera.

#### d. Setting Column Content

When designing the layout, it is essential to tailor the content design and arrangement according to the individual differences of the learners.

### (3) Online Learning Content Design for Certain Hunan Operas (Balin Opera, Xiang Opera, Jinghe Opera)

The online course content of Hunan Opera (Baling Opera, Xiang Opera, Jinghe Opera) must be correct and in line with the teaching objectives. The teaching content should be within a reasonable range and have a reasonable depth. After determining the teaching content, it is necessary to design and arrange the



artistic and cultural content of the selected Hunan operas (Baling Opera, Xiang Opera, Jinghe Opera), and reasonably divide the chapters.

Online learning content for Hunan opera (Baling opera, Xiang opera, Jinghe opera)

Chapter	content
Chapter 1 History	Baling Opera (Hunan Opera, Jinghe Opera)
Chapter 2 Language	Baling Opera (Hunan Opera, Jinghe Opera)
Chapter 3 Clothing	Baling Opera (Hunan Opera, Jinghe Opera)
Chapter 4 Makeup	Baling Opera (Hunan Opera, Jinghe Opera)
Chapter 5 Introduction to Accompaniment Instruments	Baling Opera (Hunan Opera, Jinghe Opera)
Chapter 6: Learning Classic Lyrics	Baling Opera (Hunan Opera, Jinghe Opera)

### 3. The Design Process of Learning Center Content

The design process of the learning center content involves the following four main steps:

#### (1) Determining the Target Audience and Objectives

Learners are the main subject and focus of the entire teaching process, and their individual characteristics influence the teaching process. In this study, the learning content for certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera) is designed for the lifelong education learner group. It aims to serve users and learners of different genders, ages, professions, etc.

#### (2) Clarifying the Teaching Model and Highlighting Teaching Features

When designing the learning center content, it is important to consider both the uniqueness of Hunan opera content and the characteristics of online learning. A comparative analysis of various teaching models is conducted to develop a



distinctive and appropriate teaching model. This model aims to provide personalized teaching plans for the learning of Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera), offering a multi-faceted presentation of Hunan opera culture.

### (3) Teaching System Structure and Module Design

The design of a systematic learning module and its framework can enhance students' enthusiasm for learning and improve learning efficiency. In the design of learning content for certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera), the author has identified four key modules: course categorization, course information, video resources, and knowledge graphs. These modules are interconnected, and by navigating through each module, learners can gain an understanding of and engage with the study of Hunan Balin Opera, Xiang Opera, and Jinghe Opera.

### (4) Setting Column Content

When designing the layout, it is essential to tailor the content design and arrangement according to the individual differences of the learners.

**learning center mainly includes the following four steps:**

### (5) Online Learning Content Design for Certain Hunan Operas (Balin Opera, Xiang Opera, Jinghe Opera)

The teaching content presented in the online courses for certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera) must be accurate and aligned with the educational objectives. The analysis of the teaching content should be conducted within the specified scope and depth, revealing the connections between various parts of the content to ensure teaching efficiency. Once the teaching content is determined, the selected artistic and cultural content of certain Hunan operas (Balin Opera, Xiang Opera, and Jinghe Opera) must be designed and organized, with a rational division of chapter content.

4. Constructing a platform based on the principle of lifelong education  
Comparative analysis of the five selected learning platforms based on the principle of lifelong education. Research is conducted by analyzing and synthesizing

basic information about the concepts, theories, and principles of lifelong education in books and literature. In the study, these principles include: 1. Ensuring educational continuity and preventing knowledge loss; 2. Educational programs and methods should be tailored to the specific goals of each population; 3. Education aims to cultivate people's adaptability to constantly evolving, changing, and transforming lifestyles; 4. Widely utilize various training and information tools to break through the definition and institutional limitations of traditional education; 5. Establish a close connection between actions and educational goals.

Based on the principle of lifelong education, this study carefully selected five learning platforms that conform to the concept of lifelong education and provide free services through comparison and analysis. These 5 learning platforms are NetEase Open Course, MOOC, iCourse, Xuetang.com, Zhizhishu, etc. The data analysis of 5 learning platforms will be detailed in Chapter 4. The research will also preliminarily design a Hunan opera intangible cultural heritage learning platform that conforms to these five principles.

#### 5. Verify the effectiveness of the platform

Converting opera resources into online course learning for display can expand the influence of opera culture, promote the cultivation of learners' national pride and identity, facilitate the education and inheritance of intangible cultural heritage, and provide a new path for the effective development of cultural resources. The concept of lifelong education holds that learning is a continuous process that accompanies an individual's entire life journey and is not limited to traditional school education stages. The implementation of lifelong education requires an easily accessible learning environment. Through Internet connection, various learners can access educational content anytime, anywhere, and flexibly arrange their learning time to adapt to their busy work and life arrangements.

Here, the first draft of the designed learning platform will be handed over to 5 experts for inspection, to verify the applicability of the learning platform (draft), and to make improvements to make it more complete. Then, it will be submitted to

experts for further evaluation, ultimately meeting the needs of Hunan opera intangible cultural heritage learners.

### **3.1.2 Research Methods**

The research methods of this study mainly include five methods: literature review, field investigation, interview, questionnaire survey, and systematic verification.

#### **1. Literature research method**

The literature research referred to in this study refers to the systematic review of academic papers, monographs, and research reports in relevant fields, which can comprehensively grasp the characteristics and educational inheritance models of the intangible cultural heritage of Baling Opera, Jinghe Opera, and Xiang Opera, and summarize the historical background, theoretical basis, and latest progress of the research theme. Analyze and synthesize the historical evolution and research level of this study to form a clear and comprehensive understanding.

#### **2. Field investigation method**

Field investigation method can obtain first-hand information through on-site observation and participation, enhancing the authenticity and depth of research. In order to obtain first-hand information on traditional Chinese opera music, researchers conducted field research on performance groups and research institutes related to Hunan opera. They visited group art museums, cultural bureaus, and city museums to conduct comprehensive and systematic investigations. Through field research and investigation, they understood the objective and actual situation of music resources for Baling opera, Jinghe opera, and Hunan opera, and comprehensively collected relevant pictures and information on these three types of opera music.

#### **3. System verification method**

The system validation method ensures the correctness and reliability of system design by constructing mathematical models and logical reasoning. For example, in software development, formal verification techniques can detect potential errors and vulnerabilities in advance, thereby improving software quality and reducing maintenance costs in the later stages. The main purpose of this study is to establish an

online learning platform for Hunan opera intangible cultural heritage that conforms to the principle of lifelong education, and to conduct repeated experiments, corrections, and debugging of the platform to ensure its normal operation and complete teaching functions.

#### 4. Questionnaire survey method

Questionnaire survey method is a widely used tool in social science research, market analysis, and public policy evaluation. Through carefully designed questions, researchers are able to collect a large amount of standardized data that can be used for statistical analysis to draw universal conclusions. This study used a survey questionnaire method to understand the feelings and experiences of learners after using online learning platforms for Chinese opera such as Baling Opera, Xiang Opera, and Jinghe Opera, as well as whether it has a positive effect on learning motivation and emotional cultivation. Through questionnaire feedback, the advantages and disadvantages of the platforms were identified, which will help improve and enhance the functionality and structural design of online learning platforms for Chinese opera intangible cultural heritage in the future.

#### 5. Interview method

Interview method is a qualitative research approach that delves into specific topics or issues. By communicating face-to-face or remotely with the respondents, researchers can obtain richer and more detailed information. This study used a semi-structured interview method, which allows researchers to adjust the direction of questions based on the interviewee's answers in real time, thereby delving into multiple levels of the question.

### 3.2 Ethical considerations

The main purpose of this study is to explore the development of an online learning center for lifelong learning of intangible cultural heritage. The core research objective is to design an online learning center for Hunan opera (Baling opera, Jinghe opera, Hunan opera) intangible cultural heritage opera, in order to achieve the goal of lifelong learning for people. In the research process, human participation was involved,

and multiple questionnaire surveys and semi-structured interviews were conducted with human participants. The study follows the ethical standards of the Helsinki Declaration, ensuring respect for all participants and protecting their health and rights, while fully considering the ethical, legal, and regulatory norms and standards of the place where the study was initiated and implemented (China) and Thailand. The study will apply international norms and standards. Following international ethical, legal, or regulatory requirements will not weaken or revoke any protection for research participants as stated in this Helsinki Declaration. All personal information of the survey subjects and interviewed experts in this study follows the principle of confidentiality. Prior to the start of the questionnaire survey, a research informed consent form is presented in writing; Prior to the start of the interview, necessary statements were made regarding the research informed consent form and written signatures were obtained from the interviewees. The confidentiality of personal data obtained from all raw data in this study was in accordance with the requirements of the Ethics and Research Standards Committee of Srinagar University.

### **3.3 Research Participants**

#### **3.3.1 Survey on the Importance of Traditional Chinese Opera Data Participants**

On March 3, 2019 at noon, a random sampling survey was conducted on 3500 permanent residents of Hunan University of Technology and Sichuan Conservatory of Music. The survey location is the school's public cafeteria, as the school's population is relatively concentrated during this period, making it easier to conduct a random survey. Hunan University of Technology has a total of 3 public restaurants. The study selected the densely populated No. 2 public restaurant for investigation and sampling. The sampling location was from 10am to 1pm, and the number of people was approximately 2600. A total of 260 people were sampled. Sichuan Conservatory of Music has two public restaurants. The study selected the second public restaurant for investigation and sampling. The sampling location was from 10am to 1pm, and the number of people was approximately 1900. A total of 240 people were sampled.

Table 1 Population and Sample Size by University Classification

Serial Number	university	student	
		Number	Sample
1	Hunan University of Technology	About2600	260
2	Sichuan Conservatory of Music	about 1900	240

### 3.3.2 Survey Participants of Hunan Opera Intangible Cultural Heritage Learning Platform

The study conducted stratified random sampling of populations of various age groups from September 5-7, 2024 at Hunan University of Technology and Sichuan Conservatory of Music, as well as from September 8-10 at cultural centers in Chengdu. The sampling criteria were Comrey&Lee's sample standard (Comrey&Lee, 1992. P217), for example, when the population size was 500 people, the sample size was 217 people; When the population size is 2000 people, the sample size is 322 people. In this study, Hunan University of Technology and Sichuan Conservatory of Music had a total population of 1000 students in the music department. According to the standard, 278 students were sampled in this study; The population size of graduates from Hunan University of Technology and Sichuan Conservatory of Music is about 1000, and according to the standard, 278 people were sampled this time; The population size of the social survey conducted at the cultural center in Chengdu is about 100000 people, and a total of 384 people were sampled according to the standard. A total of 940 samples were obtained from the three groups mentioned above, as shown in Table 2.

Table 2 Population and sample size classified by sampling location

Serial Number	university	student	
		Number	Sample
1	Hunan University of Technology	1000	278
2	Sichuan Conservatory of Music	1000	278
3	Chengdu Social Population (Cultural Center)	100000	384

### 3.3.3 Hunan Opera Intangible Cultural Heritage Opera Experts

Three experts come from three institutions, as shown in Table 3. The selection criteria for experts must be provincial-level inheritors who have teaching media, educational technology, written books, textbooks, or work recognized by the education industry in the field of opera.

Table 3 Hunan Opera Intangible Cultural Heritage Opera Experts

Serial Number	Opera name	Expert Introduction
1	Baling Opera	Provincial inheritor, national first-class composer, Yueyang Baling Opera Troupe
2	Jinghe Opera	National level inheritor, national second level actor, Jinghe Theater in Lixian County
3	Hunan Opera	Provincial inheritor, national first-class actor, Changsha Xiang Theatre



### 3.3.4 Hunan Opera Intangible Cultural Heritage University Teachers

Three university teachers come from two different universities. As shown in Table 4, the selection criteria for university teachers must have relevant research experience in the field of music, have written books, textbooks or published papers in this field, and have work recognized by the music industry.

Table 4 Teachers of Hunan Opera Intangible Cultural Heritage Universities

Serial Number	Teacher Introduction
1	Pang Yi, Associate Professor at the School of Music, Hunan University of Technology;
2	Associate Professor and erhu performer at the School of Music, Hunan University of Technology
3	Professor and ethnomusicologist at Sichuan Conservatory of Music

### 3.3.5 Learning Platform Verification Experts

The verification experts for the learning platform come from two countries, including 2 experts from Thailand and 3 experts from China. The validation experts for this learning platform are composed of opera experts and platform design experts. The platform validation process adopts a group focus meeting format, where experts provide revision suggestions based on the designed learning platform draft and score the learning platform. The expert information is shown in Table 5 below.



Table 5 Verification Expert List for Learning Platform

Serial number	Expert Introduction
1	Assistant Professor Dr.Phisit Nadprasert
2	Lecturer Dr.Pattaranun Waitayasin
3	The researcher in traditional Chinese opera at the Yueyang Baling Opera Research Institute:David
4	The Associate Researcher in traditional Chinese opera at Changsha Xiang Theater: Chen Yi
5	Lecturer The technical representative of Chinese MOOCs: Luo Junrong,

### 3.4 Research Methods

The research tool to be introduced in this section includes three parts: Part 1: Quantitative research questionnaire, which includes a questionnaire on the importance of traditional Chinese opera and three different groups of people's opinions on the Hunan opera intangible cultural heritage learning platform. Part 2: A semi-structured interview outline for three experts and an interview outline for three university teachers. Part 3: Audio recordings for interviews, etc

#### 3.4.1 Survey Questionnaire on the Importance of Traditional Chinese Opera

The self-developed questionnaire on the importance of traditional Chinese opera was used in the study, which involved basic demographic information such as gender, age, occupation, education level, and respondent identity. The questionnaire included 1) Hunan is a major province of traditional Chinese opera. 2) Baling opera is the first batch of national intangible cultural heritage and a representative of Xiangbei opera. 3) Hunan opera is the first batch of national intangible cultural heritage and a representative of Xiangzhong opera. 4) Jinghe opera is the first batch of national intangible cultural heritage and a representative of Xiangnan opera The scoring criteria

for the question options are based on a decreasing Likert scale, where 1 represents strongly agree and 2 represents agree; 3 represents generally appropriate; 4 indicates disagreement; 5 strongly disagrees.

### **3.4.2 Survey Questionnaire for Hunan Opera Intangible Cultural Heritage**

#### **Learning Platform**

The survey questionnaire of Hunan Opera Intangible Cultural Heritage Learning Platform was self-designed for three different groups of people, and after questionnaire design, it was tested for content validity by multiple industry experts. The questionnaire is a unified topic and was distributed to three different groups of people for filling out in the study, namely college students, graduated students, and the general public. The questionnaire includes five categories: cognition and interest in Hunan opera intangible cultural heritage, willingness and goals for learning Hunan opera intangible cultural heritage, content of Hunan opera intangible cultural heritage online learning center, expected teaching activities of Hunan opera intangible cultural heritage online learning center, and expected learning experience of Hunan opera intangible cultural heritage online learning center. (The questionnaire content is detailed in Appendix 2).

### **3.4.3 Outline of semi-structured interviews with opera experts**

The study was conducted by three experts in traditional Chinese opera and three university teachers. Based on the research objectives and hypotheses, a semi-structured interview outline was developed: the current status and effectiveness of Hunan opera intangible cultural heritage online education inheritance, the content preferences of the target learning population for Hunan opera intangible cultural heritage online education, the teaching content and display forms of Hunan opera intangible cultural heritage online education, the current status and challenges of Hunan opera intangible cultural heritage online platform teaching, and the acceptance and advantages of Hunan opera intangible cultural heritage online platform teaching (see Appendix 3 for the semi-structured interview outline).

#### 3.4.4 Platform Expert Scoring Table

According to research objective two, the design of an online learning center for Hunan opera intangible cultural heritage will be carried out, and the platform draft will be evaluated by multiple experts. The content will be revised or retained based on the evaluation and scoring of the platform draft by experts. Scoring criteria: 1 point indicates poor, 2 points indicate poor, 3 points indicate average, 4 points indicate good, and 5 points indicate excellent (see Appendix 4 for scoring details).

#### 3.4.5 Recording Equipment

The study requires interviews with multiple research participants and the use of iFlytek recording pens (model: B1Y210) for audio recording and storage. All interview content will be converted into text format using audio equipment, and will be presented after verification and obtaining the consent of the researchers.

### 3.5 Data Collection

#### 3.5.1 Quantitative Data Collection

A questionnaire survey conducted by researchers on the needs of higher education institutions and the public was handed over to a group of 10 master's students from the Music Department of Sichuan Conservatory of Music for sampling. All questionnaires will be sent to the target sample population for filling out, and the collected data will be handed over to the researchers. Complete all data sampling for quantitative research and collect complete survey questionnaires by September 10, 2024.

#### 3.5.2 Qualitative Data Collection

Interviews with inheritors of Hunan opera intangible cultural heritage and university teachers were conducted. The researchers contacted these six interviewees and personally went to meet and interview all personnel from September 30 to October 8, 2024 to complete data collection.

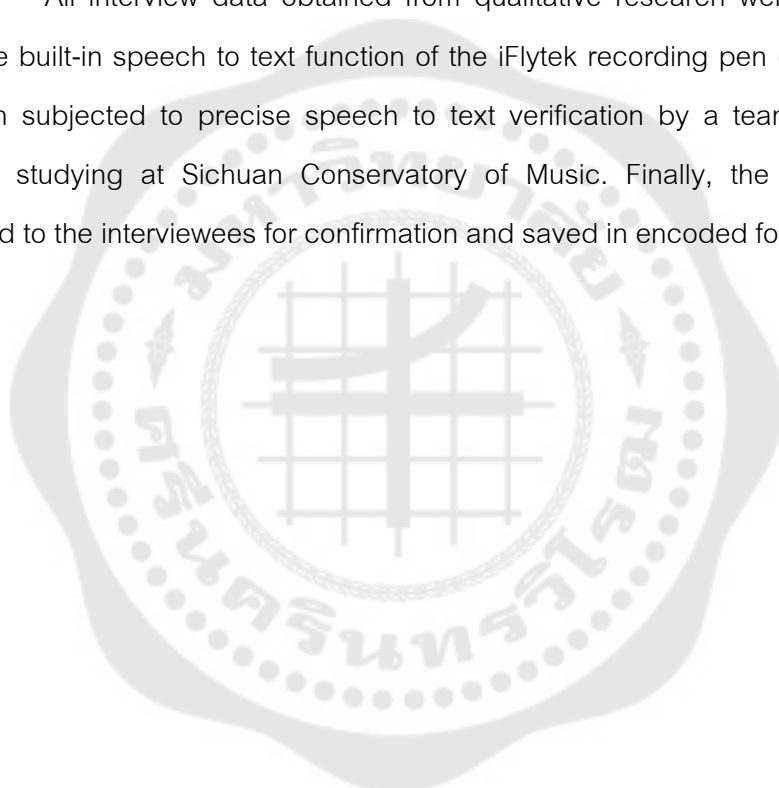
### **3.6 Data Analysis**

#### **3.6.1 Quantitative Data Analysis**

This study was obtained through the Wenjuanxing data collection software, and the obtained data was processed for the first time using Excel software. The first processed data was analyzed for descriptive statistics using SPSS 26.0 statistical analysis software, which calculates percentages.

#### **3.6.2 Qualitative Data Analysis**

All interview data obtained from qualitative research were first converted using the built-in speech to text function of the iFlytek recording pen (model: B1Y210), and then subjected to precise speech to text verification by a team of 10 master's students studying at Sichuan Conservatory of Music. Finally, the transcripts were submitted to the interviewees for confirmation and saved in encoded form.



## CHAPTER 4

### DATA ANALYSIS

This chapter is about data analysis, including population information analysis, quantitative data analysis, qualitative data analysis, comparative analysis of five learning platforms under the principle of lifelong education, system design of Hunan opera intangible cultural heritage online learning platform, expert evaluation of Hunan opera intangible cultural heritage online learning platform system, and display of the modified Hunan opera intangible cultural heritage online learning platform.

#### 4.1 Interviewees

This study adopts a combination of quantitative and qualitative methods. This section will comprehensively analyze the data from questionnaire surveys in quantitative research and interviews in qualitative research. The survey population is mainly divided into three categories: 278 college students, 278 graduates, and 384 members of the general public, totaling 940 people.

##### 4.1.1 Questionnaire

The questionnaire survey was conducted from September 18th to September 30th, 2024, and 278 valid questionnaires were collected from college students; 278 questionnaires were collected from graduated students; 384 questionnaires were collected from the general public, with a response rate of 100% and an effective rate of 100%. The detailed information is shown in Table 6 :

Table 6 Distribution of Population Information

Question	Number	Percentage
1.Are you a full-time student :		
Yes	107	35.7
No	193	64.3
2. Age range:		
Under 19	8	0.94
20-19	326	34.68
30-39	228	24.26
40-49	190	20.12
50-59	141	15.0
≥60	47	5.0
3. Gender:		
Male	105	35.0
Female	195	65.0

According to the table above, there are 329 full-time students in the survey sample, accounting for 35.0% of the total number. In terms of age distribution, there are 8 people under the age of 19, accounting for 0.94% of the total population; There are 326 people aged 20-29, accounting for 34.68% of the total population; There are 228 people aged 30-39, accounting for 24.26% of the total population; There are 190 people aged 40-49, accounting for 20.12% of the total population; There are 141 people aged 50-59, accounting for 15.0% of the total population; There are 47 people aged 60 and above, accounting for 5% of the total population. There are 423 males, accounting for 45% of the total population; There are 517 women, accounting for 55% of the total population.

Overall, among the population surveyed in this study, there were significantly more social groups than full-time students, and there were significantly more women than men; In terms of age distribution, the 20-29 age group has the highest proportion, followed by the 30-39age group and the 40-49 age group.

#### 4.1.2 The information of experts

The interviewees of this study include six experts, namely the provincial-level inheritor of Baling Opera, the national level inheritor of Hunan Opera, the provincial-level inheritor of Jinghe Opera, two teachers from Hunan Province, and one teacher from Sichuan Province. The detailed publicly available information is presented in Table 7.

Table 7 Basic Information of Experts

Name	Work location	Educational background/ professional title		Record number
		Research field		
Liu Maolin	Yueyang	Technicalsecondary school/national first-class composer	Accompanying	Interviewer 1
	Baling Opera		performance and	
	Troupe		composition of Baling	
	(Retired)		opera	
Zhang	Jinghe Theater	Technical secondary	Jinghe Opera	Interviewer
Rongrong	in Lixian	school/national second		
	County	level actor		



Table 7 (Continued)

Name	Work location	Educational background/ professional title	Research field	Record number
Cao Rulong	Changsha Xiang Theatre (Retired)	Technical secondary school/national first-class actor	Hunan Opera Performance	Interviewer 3
Pang Yi	Hunan University of Technology	Graduate/Associate Professor	Vocal Music Specialty, Ethnic Music	Interviewer 4
Zhou Li	Hunan University of	Graduate/Associate Professor	Erhu, Ethnic music	Interviewer 5
Gan Shaocheng	Sichuan Conservatory of Music	Undergraduate/Professor	Ethnic music	Interviewer 6

#### 4.1.3 Summary Table of Basic Information of Platform Verification Experts

The platform validation experts for this study include 1 Chinese platform design expert, 2 Chinese opera experts, and 2 opera experts from Thailand, totaling 5 experts. As detailed in Table 8

Table 8 Summary of Basic Information of Platform Verification Experts

Name	Work location	Educational background/ professional title	Serial Number
Phisit Nadprasert	Dr/Assistant Professor	Art Education and Evaluation Expert	Platform experts 1
Pattaranun	Dr/Lecturer	Art Education and Evaluation Expert	Platform experts 2
Waitayasin			
Wei Dai	Master/Researcher	Expert in traditional Chinese opera at Yueyang Baling Opera	Platform experts 3
Yi Chen	Master/Associate	Changsha Xiang Theater Opera	Platform experts 4
Junrong Luo	Research bachelor's degree/Lecturer	Expert Technical representative experts of Chinese MOOCs	Platform experts 5

#### 4.2 Analysis of quantitative information

This study was conducted in the form of a combination of questionnaires and interviews. In this subsection, the data from the questionnaires will be statistically analyzed, and this subsection is divided into five chapters: the cognition and interest of Hunan Opera Non-legacy, the willingness to learn and the goal of Hunan Opera Non-legacy, the content of Hunan Opera Non-legacy Online Learning Center, the desired teaching activities of Hunan Opera Non-legacy Online Learning Center, and the desired learning Experience.

#### 4.2.1 Awareness and Interest in Hunan Opera Nonheritage

Table 9 Summary of Awareness and Interest in Hunan Opera NRM Survey

Question	Answer	Number	Percentage
Q1. Have you ever participated in any activities related to non-heritage opera culture?	Yes	517	56.52%
	No	423	43.48%
Q2. Do you know about Chinese non-legacy opera culture?	Yes	511	54.36%
	No	429	45.64%
Q3. How much do you know about Chinese non-heritage opera culture?	Much	49	5.21%
	Some	401	42.66%
	little	225	23.94%
	No	209	22.23%
	not at all	56	5.96%
	Very much	143	15.21%
Q4. Are you interested in Chinese non-legacy opera culture?	Some	368	39.15%
	little	307	32.66%
	No	102	10.85%
	not at all	20	2.13%
	Very much	61	6.49%
Q5. Do you know the Baling Opera in Hunan Opera Non-Heritage?	Some	245	26.06%
	little	82	8.72%
	No	470	50.01%
	not at all	82	8.72%

Table 9 (Continued)

Question	Answer	Number	Percentage
Q6.Do you know the Jinghe Opera, one of the non-heritage Hunan operas?	Very much	82	8.72%
	Some	163	17.34%
	little	143	15.21%
	No	470	50.01%
	not at all	82	8.72%
	Very much	61	6.49%
Q7.Do you know Hunan Opera, which is one of the non-heritage Hunan operas?	Some	225	23.94%
	little	184	19.57%
	No	409	43.51%
	not at all	61	6.49%

Table 9 above focuses on the results of the survey on awareness and interest in non-heritage opera culture. Regarding whether or not they have ever participated in any activities related to non-heritage opera and music culture, 56.52% of the respondents indicated that they have participated in activities related to non-heritage opera and music culture, while 43.48% have not. This indicates that the popularity of non-heritage opera and music culture activities is close to half.

Do you know about China's non-heritage opera culture: 54.36% of the respondents said they know about China's non-heritage opera culture, while 45.64% said they don't know. This shows that non-heritage opera culture has a certain degree of popularity among the public, but nearly half of the people still lack knowledge about it.

How much do you know about China's non-heritage opera culture: only 5.21% said they know it very well, while 42.66% said they know it generally, 23.94% said they know it, 22.23% said they don't know it, and 5.96% said they don't know it at all. This shows that most people know less about Chinese non-heritage opera culture.

Are you interested in Chinese non-heritage opera culture: 15.21% are very interested, 39.15% are quite interested, 32.66% are interested, 10.85% are not interested, and 2.13% are very uninterested. This shows that non-heritage opera culture has a certain attraction among the public.

Do you know Baling Opera in Hunan Opera Intangible Cultural Heritage: 6.49% know it very well, 26.06% know it generally, 8.72% know it, 50.01% don't know it, and 8.72% don't know it at all. Do you know Jinghe Opera of Hunan Opera Non-Heritage: 8.72% know it very well, 17.34% know it generally, 15.21% know it, 50.01% don't know it, and 8.72% don't know it at all. Do you know Hunan Opera in Hunan Opera Nonheritage: 6.49% know it very well, 23.94% know it generally, 19.57% know it, 43.51% don't know it, and 6.49% don't know it at all. This set of survey data shows that most people do not know much about the three kinds of non-heritage operas in Hunan, and the proportion of people who do not know and do not know at all are more than 50%.

To summarize, although NROC culture has been recognized by the public to a certain extent, the overall level of understanding and interest is not high, especially for specific types of NROC opera, such as the Baling Opera, Jinghe Opera and Xiangju Opera in Hunan, the level of public understanding is even lower. This indicates that there is still much room for improvement in the promotion and popularization of non-heritage opera culture.

#### 4.2.2 Willingness and Objectives of Learning Hunan Opera Nonlegacy

Table 10 Summary of Willingness and Goal Survey on Learning Intentions and Goals of Hunan Opera Nonlegacy

Question	Answer	Number	Percentage
Q8. Have you ever watched a live performance or online video of any of these plays?	I have watched live performances of traditional Chinese opera	204	21.70%
	I have watched one online video of a traditional Chinese opera	266	28.30%

Table 10 (Continued)

Question	Answer	Number	Percentage
Q9. Do you think there is a need to educate and pass on the non-legacy of Hunan's opera (Baling Opera, Jinghe Opera, Xiang Opera)?	Have watched 2 or more online videos of traditional Chinese opera	225	23.94%
	I have watched both online and offline	123	13.08%
	I haven't seen either of them	122	12.98%
	be necessary	188	62.7%
	Very necessary	93	31.0%
Q10. Would you like to study the non-legacy of Hunan Opera (Baling Opera, Jinghe Opera, Xiang Opera)?	unnecessary	4	1.3%
	completely unnecessary	5	1.7%
	indifferent	10	3.3%
	Very willing	347	36.91%
	be willing	390	41.49%
Q11. What do you hope to achieve through lifelong learning? (Multiple choices)	indifferent	163	17.34%
	unwilling	20	2.13%
	Very unwilling	20	2.13%
	Personal Development	674	71.70%
	Career advancement	613	65.21%
Q12. Which of the following aspects of knowledge about opera non-heritage are you most interested in? (Multiple choices)	hobby	715	76.06%
	Social interaction	470	50.01%
	Knowledge growth	613	65.21%
	history	654	69.57%
	language	572	60.85%
	Clothes & Accessories	654	69.57%
	Makeup	572	60.85%
	Introduction to Accompaniment	429	45.64%
	Instruments		
	Learning classic vocal passages	511	54.36%

Table 10 above focuses on the findings about the willingness and goals of learning non-heritage opera. This set of data provides findings on the viewing habits, willingness to pass on, willingness to learn, and interest in opera NCS.

Have you ever watched live performances or online videos of these operas: 21.70% of the respondents said they had watched live performances of operas, 28.30% had watched one kind of online video of operas, 23.94% had watched two or more kinds of online videos of operas, 13.08% said they had watched both online and offline, and 12.98% had not watched either. This indicates that most respondents were exposed to opera through online videos, while the proportion of live viewing was low, suggesting that online platforms are an important channel for the dissemination of opera culture.

Do you think it is necessary to educate and pass on the non-legacy of Hunan's opera (Baling Opera, Jinghe Opera, Xiang Opera): 62.7% of the respondents think it is necessary to educate and pass on the non-legacy of Hunan's opera, 31.0% think it is very necessary, 1.3% think it is not necessary, 1.7% think it is not necessary at all, and 3.3% don't care. This shows that the vast majority of respondents support the education and inheritance of Hunan opera non-legacy, reflecting the public's positive attitude towards the protection of traditional culture.

Are you willing to learn Hunan's opera non-heritage (Baling Opera, Jinghe Opera, Xiang Opera):, 36.91% of the respondents said that they were very willing to learn Hunan's opera non-heritage, 41.49% said yes, 17.34% said no, 2.13% said no, and 2.13% said very unwilling. This shows that most of the respondents have a positive attitude and high willingness to learn Hunan opera non-heritage.

What goals do you hope to achieve through lifelong learning: 71.70% of the respondents hope to realize personal development through lifelong learning, 65.21% hope for career advancement, 76.06% hope to satisfy hobbies, 50.01% hope to enhance social interaction, and 65.21% hope to increase knowledge. These data show that respondents have diversified goals for lifelong learning, with hobbies and personal development being the most important motivations.



Which of the following aspects of opera NPL knowledge are you most interested in: 69.57% of the respondents are most interested in the history of opera, 60.85% are interested in the language of opera, 69.57% are interested in the costumes of opera, 60.85% are interested in the makeup of opera, 45.64% are interested in the introduction of accompanying musical instruments, and 54.36% are interested in the study of classical singing . This indicates that the respondents are interested in several aspects of the opera's non-legacy, especially the history and costumes, which may be related to the richness and visual appeal of opera as a cultural vehicle.

In summary, these data reveal that the public has a certain understanding of and interest in learning about opera NRL culture. At the same time, most people support the educational transmission of opera NRLs and hope to achieve personal development and fulfillment of their interests through lifelong learning. These findings are important for the development of strategies for the protection and promotion of opera NRL.

#### 4.2.3 Content of Hunan Opera Non-legacy Online Learning Center

Table 11 Summary of the Expected Content Survey of Hunan Opera and Non-legacy Online Learning Center

Question	Answer	Number Percentage	
		Number	Percentage
What interactive features would you like to see in the e-Learning Center? (Multiple choice)	Forum discussion	633	67.34%
	Online Q&A	593	63.09%
	cosplay	674	71.70%
	Forum	450	47.87%
	virtual community	450	47.87%
	Live interaction	531	56.49%
Q14. What teaching methods do you think are most effective for learning about opera NCS? (Multiple choice)	Demonstration teaching	756	80.43%
	case analysis	572	60.85%
	Practical operation	654	69.57%
	panel discussion	705	75%

Table 11 (Continued)

Question	Answer	Number	Percentage
Q15. How would you like the Online Learning Center to present the historical and cultural background of opera NPOs?	One on one tutoring	235	25%
	Through video	314	33.40%
	Through articles	94	10 %
	Through interactive timeline	225	23.94%
	Through virtual reality	164	17.45%
	Through expert lectures	143	15.21%
	Provide courses of different difficulty levels	236	25.11%
Q16. How do you think online learning centers should adapt to the needs of different learners?	Personalized learning path	388	41.28%
	Flexible study time	278	29.57%
	Multi language support	28	2.98%
	other	10	1.06%
	Regular testing	266	28.30%
Q17. How would you like the e-Learning Center to assess and provide feedback on learning outcomes?	e-Project assignment	143	15.21%
	Learner peer evaluation	204	21.70%
	Teacher feedback	225	23.94%
	Self evaluation	102	10.85%
	Self directed learning	490	52.13%
	panel discussion	531	56.49%
Q18. Which mode of learning do you prefer? (Multiple choice)	Mentor guidance	695	73.94%
	Flipped Classroom	307	32.66%
	other	143	15.21%

Table 11 (Continued)

Question	Answer	Number	Percentage
		r	e
Q19. Which devices do you usually use for online learning? (Multiple choice)	computer	613	65.21%
	Flat	777	82.66%
	mobile phone	715	76.06%
	television	204	21.70%
	Offline opposite	572	60.85%

Table 11 above focuses on the results of the survey on the preferences and needs of users of online learning centers. What kind of interactive features do you want the eLearning center to provide: 71.70% of the respondents want the eLearning center to provide role-playing features, 67.34% of the respondents want forum discussion features, 63.09% of the respondents want online Q&A features, 56.49% of the respondents want live streaming interactive features, and 47.87% of the respondents want virtual community features. This suggests that respondents prefer learning environments with high interactivity, especially role-playing, which may help to increase the immersion and fun of the learning experience.

Which teaching methods do you think are the most effective for learning opera and non-heritage culture: 80.43% of the respondents think that demonstration teaching is the most effective, 75% think that group discussion is effective, 69.57% think that hands-on practice is effective, 60.85% think that case study is effective, and 25% think that one-on-one tutoring is effective. This shows that the respondents preferred interactive and practical teaching methods.

How would you like the online learning center to present the historical and cultural background of opera NCS: 33.40% of the respondents would like to present it by video, 23.94% by interactive timeline, 17.45% by virtual reality, 15.21% by expert lectures, and 10% by articles. This indicates that respondents generally preferred to be

presented in videos and interactive timelines, which provide a more visual and interactive learning experience.

How do you think online learning centers should adapt to the needs of different learners: 41.28% of respondents want to provide personalized learning paths, 25.11% want to provide courses with different difficulty levels, 29.57% want to have flexible learning hours, and 2.98% want to have multi-language support. This indicates that personalized learning paths are the most popular option.

How would you like the e-Learning center to assess and give feedback on learning effectiveness: 23.94% of the respondents would like to have instructor feedback, 28.30% would like to have regular tests, 15.21% would like to have project assignments, 21.70% would like to have mutual assessment by the learners, and 10.85% would like to have self-assessment. This suggests that teacher feedback and regular tests are the most popular forms of assessment and feedback, and perhaps respondents believe that such methods provide professional guidance and objective assessment.

Which learning mode do you prefer: 73.94% of the respondents prefer tutor-guided learning mode, 56.49% prefer group discussion, 52.13% prefer self-directed learning, and 32.66% prefer interactive classroom. This indicates that tutor-led is the most popular mode of learning, and here it also reflects that respondents believe that tutors can provide professional guidance and support.

Which devices do you usually use for online learning: 82.66% of the respondents use tablets for online learning, 76.06% use cell phones, 65.21% use computers, 21.70% use TVs, and 60.85% use offline face-to-face learning. Tablets and cell phones are the most popular devices for online learning.

In summary, we can clearly see that respondents generally prefer learning environments that are interactive, highly personalized and flexible, as this can provide a richer and more effective learning experience; in addition, respondents tend to use mobile devices to carry out e-learning activities, as this is more convenient and faster,

and enables them to access the required learning resources and information anytime and anywhere.

#### 4.2.4 Expected Teaching Activities of Hunan Opera and Non-legacy Online Learning Center

Table 12 Summary of the Survey on Expected Teaching Activities of Hunan Opera and Non-legacy Online Learning Center

Question	Answer	Number	Percentage
20. What types of learning materials do you think should be included in an online learning center?(Multiple choice)	Video lectures	777	82.66%
	Audio explanation	572	60.85%
	Electronic books and articles	633	67.34%
	Interactive e-book	429	45.64%
	Online simulation and gaming	450	47.87%
	weekly	266	28.30%
	Every two weeks	286	30.43%
	monthly	245	26.06%
	Quarterly	61	6.49%
	Not regularly, but at least once a year	82	8.72%
21. How often would you like the learning content of the e-Learning Center to be updated?	High definition video	347	36.92%
	Professional recorded audio	164	17.45%
	Detailed textual information	102	10.85%
	Highly interactive multimedia content	184	19.57%
22. What are your expectations of the quality of the learning content provided by the online learning center?			

Table 12 (Continued)

Question	Answer	Number	Percentage
23. What types of instructional activities would you like to see offered in an online learning center? (Multiple choice)	Easy to understand case studies	143	15.21%
	Real time online lecture	633	67.34%
	Interactive Seminar	552	58.72%
	Special Workshop	347	36.91%
	Role playing and simulation	490	52.13%
	Expert Q&A session	225	23.94%
	At least once a week	245	26.06%
24. What do you think the frequency of these teaching activities should be?	once every two weeks	286	30.43%
	Once a month	205	21.81%
	Once every quarter	61	6.49%
	Hold irregularly as needed	143	15.21%

Table 12 above focuses on the results of the survey on the expected teaching activities of the Hunan Opera NCS online learning center. This data set provides user preferences regarding the types of learning materials, frequency of updates, content quality expectations, and types of teaching activities in the online learning center.

What types of learning materials do you think should be included in an eLearning center: 82.66% of respondents want eLearning centers to include video lectures, which is the most popular type of learning material, 67.34% want to include e-books and articles, 60.85% want audio lectures, 45.64% want interactive e-books, 47.87% of the respondents wanted to include online simulations and games. This shows that video lectures are the most popular learning materials due to their visual and

easy-to-understand features, while e-books and articles are also favored by more users due to their easy-to-read and reference features.

How often do you want the learning content of the online learning center to be updated: 30.43% of the respondents want the learning content to be updated every two weeks, 28.30% want it to be updated every week, 26.06% want it to be updated every month, 8.72% of the respondents accept that it is not updated regularly but at least once a year, and 6.49% of the respondents want it to be updated every quarter. This indicates that respondents (future users) generally want content to be updated frequently.

What is your expectation of the quality of learning content provided by the eLearning center: 36.92% of respondents expect HD videos, 19.57% expect interactive multimedia content, 15.21% expect easy-to-understand case studies, 17.45% expect professionally recorded audio, and 10.85% expect detailed text materials. This indicates that respondents (future users) have high expectations for the quality of learning content, especially HD video and interactive multimedia content, which helps to enhance the learning experience.

What types of teaching and learning activities would you like to see offered in an eLearning center: 52.13% of respondents would like to see role-playing and simulations offered in an eLearning center, 67.34% would like to see real-time online lectures, 58.72% would like to see interactive seminars, 36.91% would like to see workshops on specific topics, and 23.94% would like to see Q&A sessions with experts. Sessions. This shows that real-time online lectures and interactive seminars are favored by more users because of their interactivity and real-time nature.

Frequency of these teaching activities: 30.43% of the respondents would like teaching activities to be held every two weeks, 26.06% would like them to be held at least once a week, 21.81% would like them to be held once a month, 15.21% would accept that they be held at irregular intervals according to the needs, and 6.49% would like them to be held once a quarter. This shows that users generally prefer more



frequent teaching activities, which helps to maintain the continuity and interactivity of learning.

To summarize, respondents preferred diverse learning materials containing video lectures, e-books, and articles, and expected these materials to be updated frequently. At the same time, they have high expectations for the quality of learning content, especially high-definition videos and interactive multimedia content. In addition, respondents expect eLearning centers to provide diverse teaching activities and for these activities to be held on a regular basis. These data are important for designing and optimizing online learning centers.

#### 4.2.5 Expected Learning Experience of Hunan Opera Non-legacy Online Learning Center

Table 13 Summary of Expected Learning Experience Survey of Hunan Opera Non-legacy Online Learning Center

Question	Answer	Number	Percentage
25. What features would you like to see provided in the Online Learning Zone? (Multiple choice)	Personalized Learning Plan	777	82.66%
	Progress tracking and reporting	429	45.64%
	Learning achievements and certifications	572	60.85%
	Resource Download and Management	429	45.64%
	Learning note and bookmark functions	388	41.28%
	Intuitive and user-friendly	388	41.28%
	Responsive design (adapted to different devices)	184	19.57%
26. What do you expect from the interface design of the eLearning area?	Clear navigation structure	143	15.21%
	Strong visual appeal	197	20.96%

Table 13 (Continued)

Question	Answer	Number	Percentage
27. What communication methods would you like to see provided in the communication area? (Multiple choice )	Accessibility feature	28	2.98%
	Forum and discussion board	613	65.21%
	Real time chat room	593	63.09%
	Video conferencing tools	490	52.13%
	Study groups and communities	511	54.36%
28. How do you think the communication area has impacted your learning experience?	Share files and resources	409	43.51%
	Greatly improved	96	10.21%
	Improved to some extent	613	65.21%
	commonly	143	15.21%
	No impact	41	4.37%
29. What features would you like to see provided in the after-school homework submission area? (Multiple choice)	negative effect	47	5%
	Homework submission and status tracking	490	52.13%
	Homework feedback and grading criteria	572	60.85%
	Excellent homework presentation	593	63.09%
	Homework discussion and Q&A	450	47.87%
30. What are your expectations for the after-school homework submission area?	Homework templates and examples	409	43.51%
	Simple and efficient submission process	245	26.06%
	Timely feedback and rating	184	19.58%
	Clear homework requirements and guidance	347	36.92%
	Security and Privacy Protection	82	8.72%
	Easy to access and use	82	8.72%

Table 13 above focuses on the results of the survey on the desired learning experience of the Hunan Opera NCS Online Learning Center. This data set provides user preferences regarding the functional requirements of the online learning platform, interface design, communication methods, impact of the learning experience, and the functionality of the post-course assignment submission area.

What functions do you want the online learning zone to provide: 82.66% of the respondents want the online learning zone to provide personalized learning plans, 60.85% of the respondents want learning achievements and certification, 45.64% of the respondents want progress tracking and reporting, 45.64% of the respondents want to download and manage resources, and 41.28% of the respondents want to have study notes and bookmark functions. This shows that personalized learning plan, learning achievement and certification are generally recognized.

What do you expect from the interface design of the eLearning zone: 41.28% of the respondents expect the interface to be intuitive and easy to use, 20.96% expect the interface to be visually appealing, 15.21% expect a clear navigational structure, 19.57% expect the interface to be able to adapt to different devices, and 2.98% expect accessibility features. This shows that respondents generally focus on the intuitive ease of use of the interface.

What communication methods would you like to see provided in the communication area: 65.21% of respondents would like to see forums and discussion boards provided in the communication area, 63.09% would like to see real-time chat rooms, 52.13% would like to see videoconferencing tools, 54.36% would like to see study groups and communities, and 43.51% would like to see shared files and resources. This indicates that forums and discussion boards as well as real-time chat rooms are favored by more users due to their ability to provide instant communication opportunities.

How do you think the communication zone affects your learning experience: 10.21% of the respondents think that the communication zone greatly improves the learning experience, 65.21% think that the communication zone improves the learning

experience, 15.21% think that the communication zone has a fair impact on the learning experience, 4.37% think that the communication zone has no impact on the learning experience, and 5% think that the communication zone has a negative impact on the learning experience. This shows that the majority of respondents believe that the communication area has a positive impact on the learning experience.

What features would you like to see provided in the after-school homework submission area, 60.85% of respondents would like to see homework feedback and grading rubrics provided in the after-school homework submission area, 63.09% would like to see displays of good work, 52.13% would like to see homework submissions and status tracking, 47.87% would like to see homework discussions and Q&A's, and 43.51% would like to see homework templates and examples. This indicates that feedback and grading criteria for assignments as well as displays of good assignments are favored by more users for their ability to provide feedback and motivation for learning.

Your Expectation of After-School Assignment Submission Area: 36.92% of the respondents expect the after-school assignment submission area to provide clear requirements and instructions for assignments, 26.06% of the respondents expect a simple and quick submission process, 19.58% of the respondents expect timely feedback and grading, 8.72% of the respondents expect security and privacy protection, and 8.72% of the respondents expect ease of access and use. This indicates that users are more focused on clear instructions and a simple and quick submission process in the assignment submission area, which contributes to assignment submission efficiency.

To sum up, the respondents hope that the e-learning platform can have diversified functions such as personalized learning plan and learning achievement certification, and that the interface design is intuitive and easy to use. They also expect the communication area to provide a variety of communication methods. In addition, respondents expect the post-course homework submission area to provide clear homework requirements and instructions, as well as a simple and fast submission

process. These data are important guidelines for designing and optimizing e-learning platforms.

#### 4.2.6 Summary of this section

Although Hunan's non-legacy opera culture has gradually come into the public eye, the awareness of some unique types of opera still needs to be improved. This phenomenon reveals that the promotion and popularization of opera culture still has a vast space for development. In-depth investigation reveals that the public has a strong interest in the non-legacy culture of opera, especially in watching and learning through online videos, and most of them support it, and expect to enrich their personal lives and satisfy their hobbies through lifelong learning. These positive attitudes are crucial to the development of effective cultural preservation and promotion strategies. Further surveys revealed a general preference for interactive, personalized and flexible learning environments, especially online learning using mobile devices, due to their convenience and accessibility. They also preferred a variety of learning materials, such as video lectures, e-books and articles, and expected these materials to be constantly updated, with high quality expectations for high-definition videos and interactive multimedia content. This further emphasizes the importance of high-quality learning resources.

In addition, respondents expect e-learning centers to provide rich and diverse teaching activities on a regular basis, which indicates that diverse teaching activities are crucial for maintaining learning motivation and engagement. For e-learning platforms, respondents expect them to provide diversified functions such as personalized learning plans and certification of learning achievements, as well as an intuitive and easy-to-use interface design and a variety of communication methods in the communication area. These expectations highlight the role of online learning platforms in enhancing learning efficiency and interactivity. At the same time, respondents also expect the post-course homework submission area to provide clear homework requirements and instructions, as well as a simple and fast submission process, which will directly affect the convenience and efficiency of learners in completing their

homework. These data surveys are important guidance for designing and optimizing online learning platforms.

### 4.3 Analysis of qualitative information

This section focuses on the educational issues of Hunan opera's non-heritage and how to construct learning centers in schools (internal and external). The unique insights and opinions of the various professionals who participated in the semi-structured interviews will be comprehensively analyzed and collated in order to make up for the lack of quantitative analysis. In order to make the data analysis of this study more scientific and objective, and to make the results of the data analysis clear and easy to understand, the interviews are excerpted verbatim in this section, and the code names are used to represent the interviewees: the inheritor of the non-heritage Baling Opera (interviewer 1), the inheritor of the non-heritage Xiangju Opera (interviewer 2), the inheritor of the non-heritage Jinghe Opera (interviewer 3), and the teachers of Hunan Province, respectively (interviewer 4 and 5), and the teachers of Hunan Province (interviewer 6). 6) The following analysis of the interviews is organized as follows

#### 4.3.1 Current Situation and Effect of Online Education and Inheritance of Opera Nonlegacy in Hunan Province

In today's era of cultural diversification and fusion, the inheritance and development of traditional opera, as a cultural treasure of the Chinese nation, is particularly important. Hunan, a land with a long history and deep cultural heritage, has nurtured many unique opera non-legacy programs, such as Baling Opera, Jinghe Opera, Xiang Opera, etc. These forms of opera not only carry rich historical and cultural connotations, but also the spirit of the people of Hunan. These forms of opera not only carry rich historical and cultural connotations, but are also a vivid display of the spirit of Hunan people. The purpose of this paper is to explore the learners' understanding of Hunan opera NPLs and their learning needs, in order to provide a strong basis for designing an online course that meets their needs.

Table 14 Effectiveness of online education transmission methods of Hunan opera non-legacy

Interviewer 1	As the inheritor of Baling Opera, in recent years, I have observed that the online education inheritance method is gradually developing. Through digital platform and Internet technology, the performing arts and teaching resources of Baling Opera can be more widely disseminated to the public, especially the young generation. For example, the mobile Internet platform for traditional operas in Hunan has completed 178 live performances, covering multiple operas, with more than 11 million online viewers. This approach not only allows more people to understand and experience Baling opera, but also provides a new way for the inheritance of traditional art.
Interviewer 2	As a national intangible cultural heritage, the online education and inheritance methods of Hunan Opera are being strengthened. We conduct live streaming and teaching of Hunan Opera through online platforms, enabling the art of Hunan Opera to transcend geographical limitations and reach a wider audience. In addition, the Hunan Provincial Government is also promoting the integration of intangible cultural heritage into modern education, such as diversifying the forms of Hunan Opera entering schools and quickly capturing the attention of primary and secondary school students. This approach is very effective in stimulating the interest of the younger generation in Hunan Opera.
Interviewer 3	The inheritance of Jinghe Opera faces challenges, but online education provides new opportunities. Through the Internet platform, we can classify and protect existing traditional plays, excavate and rearrange a batch of traditional plays, and establish an archive database to preserve the historical original appearance of endangered plays. This approach helps us better preserve and inherit Jinghe Opera, while also allowing more people to learn and learn about Jinghe Opera through the internet.



Table 14 (Continued)

Interviewer 4	As art teachers in local universities in Hunan, we have been actively exploring the integration of Hunan opera intangible cultural heritage into the modern education system. Through online platforms, we can provide more diverse teaching resources and interactive experiences, allowing students to more intuitively experience the charm of traditional Chinese opera art. For example, we can use online courses to allow students to practice opera performance skills, which is a modern teaching method that is very helpful in enhancing students' interest and participation in learning.
Interviewer 5	As a erhu performer, I often join the team of opera accompanists, and I have noticed that online education provides new possibilities for traditional music education. Through online platforms, we can share the playing techniques of the erhu, the main accompaniment instrument of Hunan opera, and knowledge of opera accompaniment, allowing more people to learn and appreciate the art of opera accompaniment online. This approach not only contributes to the dissemination of erhu art, but also provides a new way for the inheritance and development of opera music.
Interviewer 6	I have been focusing my research on Hunan opera for a long time, and have also been paying attention to the online education and inheritance methods of Hunan opera intangible cultural heritage. Through the Internet platform, we can cross regional restrictions and share opera education resources. This approach helps promote the exchange and cooperation of traditional Chinese opera art in different regions, and jointly explore new methods and ideas for opera education.

To summarize: online education and inheritance of Hunan opera's non-heritage is gradually developing. The application of digital platforms and Internet technology has enabled traditional opera arts such as Baling Opera, Xiang Opera and Jinghe Opera to be more widely disseminated and reach a wider audience, especially the younger generation. Online education not only helps the preservation and inheritance of opera art, but also opens up new paths for the dissemination and development of opera music, and promotes exchanges and cooperation in opera art.

#### 4.3.2 Target Learning Population and Content Preference of Hunan Opera Non-legacy Online Education

Table 15 Learning Population and Characteristics Mainly Targeted by Hunan Opera Non-legacy Online Learning Center

Interviewer 1	As a provincial-level inheritor of Baling Opera, I believe that online learning centers should mainly target young people and opera enthusiasts who are interested in Baling Opera after nearly 50 years of exposure to it. They may be curious about traditional culture and willing to invest time in learning and understanding it. In addition, it should also include professional actors and opera students who hope to improve their performance skills, as they usually have strong self motivation and love for art.
Interviewer 2	As a national intangible cultural heritage, our online learning center for Hunan Opera should target a wide audience, including beginners interested in Hunan Opera, opera researchers, and scholars who wish to gain a deeper understanding of the cultural background of Hunan Opera. These groups may include students, teachers, researchers, and older generation artists who have a deep emotional attachment to Hunan opera.

Table 15 (Continued)

Interviewer 3	The online learning center for Jinghe Opera should mainly target opera enthusiasts and learners who are passionate about Jinghe Opera, especially those interested in local opera culture. This includes students who want to gain a deeper understanding of the history and performance techniques of Jinghe Opera, as well as scholars and researchers who are interested in studying traditional Chinese opera
Interviewer 4	As an associate professor in a professional college, I believe that online learning centers should be targeted towards students and teachers in music schools who need to systematically study and research Hunan opera. In addition, it should also include the general public who are interested in traditional Chinese opera and may wish to enrich their cultural life through online platforms.
Interviewer 5	As an instrumentalist, I believe that online learning centers should be aimed at musicians and students who are interested in traditional music and opera music. This includes erhu learners who want to improve their accompaniment skills, as well as music scholars who are interested in studying opera music.
Interviewer 6	Although I am a professor at Sichuan Conservatory of Music, I am also very concerned about the inheritance of Hunan opera intangible cultural heritage. I believe that online learning centers should be aimed at learners who are interested in Hunan opera nationwide and even worldwide, including students from music schools, opera enthusiasts, as well as international students and researchers interested in traditional Chinese opera culture.

To summarize: the online learning center should target different groups, including young opera enthusiasts, professional actors, opera students, researchers, scholars and the general public who are interested in Baling Opera, Xiang Opera and Jinghe Opera. In addition, conservatory students, teachers and musicians interested in

traditional music should also be included in the target audience. National and international learners interested in traditional Chinese opera culture should also be considered.

Table 16 What the people interested in Hunan opera non-legacy are more willing to study

Interviewer 1	I have been a disciple of Baling Opera for many years, and I feel that those who are interested in Baling Opera generally enjoy learning classic singing passages and the makeup of traditional Chinese opera. In addition, the language of Baling Opera is very distinctive, and many people are willing to learn it.
Interviewer 2	I think opera enthusiasts are more interested in learning about the history and culture of Hunan opera, the broad spirit of traditional Chinese opera culture, through online courses. Many people are interested in its origin and development because there will be many wonderful stories inside. Some people are also very willing to learn the instruments used for Hunan opera accompaniment.
Interviewer 3	Over the years, I have taught many students, and I feel that these learners are very interested in the makeup and costumes of Jinghe Opera. The Dan roles in Jinghe Opera are very impressive, and I also think many people are willing to learn classic singing passages.
Interviewer 4	I have conducted research on the intangible cultural heritage of Hunan opera and found that learners have a strong interest in history, language, and classic singing passages.
Interviewer 5	Perhaps it is related to my own major, as the people I have come into contact with who are interested in Baling opera are willing to learn the performance of singing sections and accompanying instruments.
Interviewer 6	Although I don't work in Hunan, I have been very concerned about the inheritance of Hunan opera intangible cultural heritage for many years. I have observed that many interested people are actually very interested in the makeup and costumes of these three types of opera, as they all have their own characteristics.

To summarize: experts' experience with Hunan opera NPOs shows that opera lovers have a strong interest in classical singing, opera make-up and costumes, especially Danjiao costumes. They tend to learn the history and culture, language and accompanying instruments of Hunan opera through online courses. The research shows that learners are particularly interested in the history, language and classical singing of opera, which is in line with the focus of Hunan opera NGT.

#### 4.3.3 Teaching Content and Display Forms of Hunan Opera Non-legacy Online Learning

Table 17 Prioritized Teaching Content of Hunan Opera NRMs

Interviewer 1	If I were to design the online learning center, I would prioritize teaching content that includes the historical background of Baling opera and classic plays. Especially in classic vocal passages, the 'inner eight skills' and 'outer eight skills' of Baling opera are required, which are the core of Baling opera performance art. At the same time, I will also pay attention to teaching the use of eye contact, which is a very unique part of Baling opera performance.
Interviewer 2	The online learning center for Hunan Opera should include an introduction and appreciation of the basic artistic features, character roles, accompanying instruments, and classic opera genres of Hunan Opera. I will focus on the singing style and performance of classic passages in Hunan opera, as well as how to express different character images and emotions through Hunan opera.
Interviewer 3	The online learning center for Jinghe Opera should cover traditional plays, vocal styles, music performances, and other related content. I will particularly emphasize the historical and cultural significance of Jinghe Opera. At the same time, it will also include the techniques of gongs, drums, and instruments used in Jinghe Opera.

Table 17 (Continued)

Interviewer 4	I think online learning centers should include traditional Chinese opera history and culture, as well as techniques for playing accompanying instruments, especially the erhu. We can start with the basic structure and pronunciation principles of erhu, gradually delving into the playing posture, bow holding techniques, and specific playing skills of erhu.
Interviewer 5	I think online learning centers should include performance techniques, repertoire analysis, and cultural background introduction of the main accompaniment instrument erhu. From basic archery practice to complex repertoire performance, learners can comprehensively understand and master the art of erhu.
Interviewer 6	I am a researcher of ethnic music and have been studying traditional Chinese opera. I believe that an online learning center for Hunan opera intangible cultural heritage should include content such as the historical and cultural background of opera, performance techniques for classic singing passages, and analysis of plays. These contents not only help students understand the art of traditional Chinese opera, but also enhance their musical literacy and aesthetic ability.

To sum up: the online learning center should pay attention to the history and culture, classic repertoire, performance skills and instrumental playing of Hunan opera NPOs, especially emphasizing the "inner eight gongs" and "outer eight gongs" of Baling opera, the use of eyes and singing of Xiang opera, the gongs and drums and instrumental playing skills of Jinghe opera, as well as the playing skills and cultural background of erhu. The students will also learn about the cultural background of the erhu and its playing techniques. The content is designed to enhance students' understanding of the art of opera and their musical literacy.

Table 18 Forms in which learning materials for Hunan opera NRM should be presented

Interviewer 1	As the inheritor of Baling Opera, I believe that visual materials should be presented in high-definition video format, including complete performances of classic plays, character makeup processes, clothing displays, etc. These videos should be accompanied by detailed explanations to enable learners to better understand the artistic characteristics and cultural connotations of Baling opera.
Interviewer 2	I think it should be presented in the form of text and video. The history and culture of Hunan Opera should be presented through textual content, and the visual materials of Hunan Opera should include performance styles and classic singing passages from different genres. Online learning centers can utilize multimedia technologies such as interactive videos and virtual reality, allowing learners to more intuitively experience the charm of Hunan opera and even simulate performance experiences.
Interviewer 3	The visual materials of Jinghe Opera should highlight its storytelling and character portrayal characteristics. Traditional plays and music performances of Jinghe Opera can be showcased through documentary films, combined with expert explanations, allowing learners to gain a deeper understanding of the artistic value and inheritance significance of Jinghe Opera.
Interviewer 4	I suggest that the video materials for online learning centers should include opera teaching videos, lectures by famous artists, and opera workshops. These contents should be designed to be modular, making it easier for learners to choose their learning based on their interests and progress.



Table 18 (Continued)

Interviewer 5	I think the video materials should include accompaniment clips of erhu and other accompanying instruments in traditional Chinese opera, as well as detailed teaching of the playing techniques of erhu and other accompanying instruments. These videos should be combined with practical performance and theoretical explanations to help learners master the playing techniques of traditional Chinese opera accompaniment instruments such as erhu.
Interviewer 6	I believe that the visual materials of Hunan opera intangible cultural heritage should be presented in rich forms, such as high-definition videos, interactive multimedia, 3D simulations, etc., to enhance the learning experience. These materials should cover multiple aspects of the history, culture, and performance techniques of traditional Chinese opera, providing learners with comprehensive art education.

To summarize: the inheritors of Baling Opera suggest that classic repertoire, make-up and costumes should be shown in high-definition video with narration to pass on its art and culture. Xiang Opera should combine text and multimedia technologies, such as interactive video and virtual reality, to show different genres and choruses. Video materials of Jinghe Opera should emphasize stories and characters, combined with documentaries and expert explanations. The online learning center should provide modular teaching videos, lectures and workshops on opera. There should also be accompaniment clips and teaching videos for erhu and other instruments. The visual materials of Hunan opera NPOs should be in various forms, such as 3D simulations, to comprehensively cover all aspects of opera in order to enhance the learning experience.



#### 4.3.4 Status and Challenges of Teaching and Learning on the Hunan Opera Non-legacy Online Learning Platform

Table 19 What difficulties will be encountered in online learning of Hunan Opera NPOs

Interviewer 1	For amateur enthusiasts, online learning of Baling opera is a great way, especially for those who live in remote areas or have irregular schedules. They can learn the basic skills and performing arts of Baling opera through video tutorials and interactive live courses. However, the main difficulty they may encounter is how to obtain professional feedback and guidance, as online learning is difficult to provide immediate face-to-face feedback.
Interviewer 2	The online learning of Hunan Opera is very attractive to amateur enthusiasts because it is not limited by time and location. However, they may find the lack of practical opportunities to be a challenge, as Hunan opera requires a lot of body movements and expression practice, which are difficult to receive sufficient guidance and correction online.
Interviewer 3	The online learning center of Jinghe Opera can provide amateur enthusiasts with rich theoretical knowledge and historical background, but learners may encounter difficulties in imitating and practicing specific performance techniques, which usually require on-site demonstrations and guidance.
Interviewer 4	Online learning platforms provide a convenient way for amateur enthusiasts to learn according to their own schedule. However, these learners may encounter challenges in understanding and mastering the complexity of traditional Chinese opera music, especially for those without a musical background.
Interviewer 5	I think learning instruments for opera accompaniment online is beneficial for amateur enthusiasts, especially for basic playing skills. However, they may find it difficult to master more advanced playing techniques and musical expression without professional guidance.

Table 19 (Continued)

Interviewer 6	I see that online learning of Hunan opera intangible cultural heritage is a valuable resource for amateur enthusiasts. They can access learning materials anytime, anywhere, but may face challenges in lacking interaction and community support, which could affect their learning motivation and progress.
------------------	---

To summarize: online learning is convenient for opera lovers, especially for those who live in remote areas or have irregular schedules. They can learn the basic skills and theoretical knowledge of Baling Opera, Xiang Opera and Jinghe Opera through video tutorials and live courses. However, lack of professional feedback, practice opportunities, live demonstrations, and difficulties in understanding complex music theory and advanced performance techniques are the main challenges they face. In addition, lack of interaction and social support may affect learning motivation and progress.

Table 20 Whether there is currently an online learning platform for Hunan opera NPOs

Interviewer 1	I understand that there is no dedicated online teaching platform for Hunan opera intangible cultural heritage (Baling opera, Jinghe opera, Xiang opera), only some lectures and performance videos can be seen online.
Interviewer 2	In recent years, Hunan has attached great importance to the promotion of Hunan Opera, with some promotional and performance videos presented online, and even some special lectures, but there is no dedicated online learning platform.
Interviewer 3	The promotion of Jinghe Opera is not particularly good. There are only some classic drama videos and basic information displayed online, and there is no dedicated online platform to showcase it.

Table 20 (Continued)

Interviewer 4	I have noticed that some mainstream online learning platforms in China have some learning videos for traditional Chinese opera, such as Peking Opera, but there is no online learning platform for Hunan's intangible cultural heritage of traditional Chinese opera (Baling Opera, Jinghe Opera, Xiang Opera).
Interviewer 5	There is no dedicated online learning platform for local operas in Hunan (Baling Opera, Jinghe Opera, Xiang Opera), and occasionally related performance videos are presented online.
Interviewer 6	In my impression, there is no dedicated online learning platform for Hunan opera intangible cultural heritage (Baling opera, Jinghe opera, Xiang opera).

To summarize: Hunan's non-heritage operas, such as Baling Opera, Jinghe Opera, and Xiang Opera, lack professional online teaching platforms, and only some of the videos of performances and lectures can be viewed online. . Although the promotion of Xiang Opera has been strengthened in recent years, online learning resources are limited, and the online promotion of Jinghe Opera is even more inadequate. Although mainstream online learning platforms have Peking Opera and other opera teaching videos, there is still a scarcity of non-legacy content for Hunan's local operas.

#### 4.3.5 Acceptance and Advantages of Hunan Opera Non-legacy Online Learning Platform

Table 21 Acceptance level of online teaching among people interested in Hunan opera nonlegacy

Interviewer 1	I feel that this group of interested people have a positive acceptance of online teaching. I think enthusiasts prefer interactive online teaching forms, such as live streaming and online interaction, which can provide immediate feedback and guidance.
Interviewer 2	In recent years, online teaching of Hunan Opera has been gradually developing, and enthusiasts have shown interest and acceptance of this new learning method. I believe that enthusiasts have a high acceptance of online teaching. They may prefer a combination of video on demand and online teaching, which allows them to learn flexibly according to their own time and also receive professional guidance.
Interviewer 3	Enthusiasts of Jinghe Opera have shown interest and acceptance of online learning, a new type of learning method. They may prefer to learn online through such convenient forms as WeChat official account and applet, because these platforms are simple to operate and easy to access.
Interviewer 4	As an educator, I have learned that enthusiasts have a certain level of acceptance towards online teaching platforms. Enthusiasts may prefer online teaching methods that provide high-definition video programs and professional explanations, which can better understand and learn traditional Chinese opera art.
Interviewer 5	I have observed that online teaching platforms have provided new avenues for the dissemination of traditional opera accompaniment instruments, such as erhu. Enthusiasts may prefer online teaching formats that provide detailed performance techniques and track analysis, which can facilitate more systematic learning and improvement.

Table 21 (Continued)

Interviewer 6	I have noticed that enthusiasts are interested in accepting online teaching. They may prefer online teaching forms that provide opportunities for interaction and communication, such as online seminars and live streaming interactions, which can increase the interactivity and fun of learning.
------------------	---

To summarize: these experts are concerned that enthusiasts are receptive and interested in online instruction. They may prefer forms of online teaching that provide opportunities for interaction and communication, such as online seminars and live interactions, which can add interactivity and interest to learning.

Table 22 What Better Learning Opportunities Can Be Provided by Creating a Dedicated Online Learning Center for Hunan's Opera and Non-Fragrant Cultural Heritage

Interviewer 1	As an online learning center, we can use digital means to preserve and disseminate the art of Baling opera. This platform can provide students and lifelong learners with a wider range of learning opportunities, allowing them to access teaching resources and classic plays of Baling Opera anytime and anywhere. In addition, through live streaming and on-demand services, learners who missed the live performance also have the opportunity to watch back, which is crucial for promoting and inheriting Baling opera.
Interviewer 2	The online learning center for Hunan Opera can provide a centralized collection of historical materials, classic plays, and instructional videos, which are valuable resources for students and lifelong learners.

Table 22 (Continued)

Interviewer 3	The online learning center of Jinghe Opera will greatly facilitate students and lifelong learners who are interested in Jinghe Opera. They can obtain systematic learning and practical opportunities through the platform, including watching live broadcasts and on-demand broadcasts of classic dramas, as well as participating in online teaching and discussions, which helps them to have a more comprehensive understanding and mastery of the artistic essence of Jinghe Opera.
Interviewer 4	As an educator, I believe that online learning centers can provide students with flexible learning methods and rich teaching resources. Students can engage in synchronous and asynchronous online learning through the platform, which not only improves the convenience of learning, but also enhances learning effectiveness. In addition, the platform's data analysis and evaluation functions can help teachers better understand students' learning situations, thereby providing more targeted guidance.
Interviewer 5	I believe that online learning centers can provide detailed teaching of performance techniques and analysis of repertoire for opera accompaniment instruments, which is very helpful for improving performance skills. Students and lifelong learners can receive immediate feedback through video tutorials and online interactions, which is crucial for improving their skills.
Interviewer 6	Although I work in Sichuan, I see that the online learning center for Hunan opera intangible cultural heritage provides a valuable learning platform for students and lifelong learners. This platform not only provides rich teaching resources, but also enables effective communication and discussion between learners and teachers through interactive communication functions, which is very helpful for learners to deepen their understanding and mastery of traditional Chinese opera art.

To sum up: the Online Learning Center uses digital means to preserve and disseminate the art of Hunan opera, such as Baling Opera, Xiang Opera and Jinghe Opera, and provides teaching resources, classical repertoire, live and on-demand services, and personalized learning content. This provides students and lifelong learners with flexible learning modes and rich teaching resources, which help them learn the art of opera anytime, anywhere, improve their performance, and enhance their learning effects through data analysis and evaluation functions.

Table 23 How to set the course content when creating the Hunan Opera Nonfiction Online Learning Center

Interviewer 1	When creating an online learning center for Baling Opera, we should include basic courses, professional courses, and featured courses. Basic courses can include traditional Chinese music, the historical origins of Chinese opera, and so on. Professional courses should cover the performance techniques, repertoire introduction, dialects, and musical accompaniment of Baling opera. Featured courses can focus on the historical background and cultural value of Baling opera, as well as specific performance practices.
Interviewer 2	The online learning center for Hunan Opera should include a multi-level curriculum structure, from basic theory to professional practice. Basic courses can include Introduction to Chinese Ethnic Instrumental Music, Basic Music Theory, etc. Professional courses should delve into the vocal style, performing arts, and rehearsal of Hunan opera plays. In addition, specialized courses can focus on the study of Hunan Opera's gongs, drums, and classic tunes.

Table 23 (Continued)

Interviewer 3	The curriculum of Jinghe Opera should take into account the needs of different learners. We can start with basic appreciation of plays and introduction of historical background, gradually delving into the study of performance techniques and music accompaniment. Professional courses can include the study of Jinghe Opera's vocal techniques, musical instruments, and gongs and drums. Specialized courses can focus on the ensemble arrangement of Jinghe opera plays and the modeling and learning of classic singing styles.
Interviewer 4	As an educator, I believe that online learning center courses should combine theoretical teaching with practical performance teaching. Theoretical teaching can be conducted through online 'traditional Chinese music lectures', while practical performance teaching can be achieved through online video tutorials. This course design can help students quickly master scientific performance techniques and methods, while acquiring basic knowledge of the main genres, forms, and musical characteristics of instrumental art.
Interviewer 5	The curriculum of online learning centers should focus on the combination of performance practice and theoretical teaching. Performance practice teaching can explain the application and key movements of fingers, wrists, and arms in the performance of the erhu, a traditional Chinese opera accompaniment instrument, through online teaching. Theoretical teaching can be achieved through specialized discussions at the 'National Music Forum', allowing students to acquire basic knowledge about the regional characteristics and musical cultural concepts of various ethnic groups in China.
Interviewer 6	Although I work in Sichuan, I believe that the online learning center for Hunan opera intangible cultural heritage should include basic courses, professional courses, and characteristic courses. Basic courses can include music theory, sight singing, and ear training. Professional courses should delve into the performing arts and musical accompaniment of various genres. Featured courses can focus on the study of classic plays and traditional music from various genres.



To sum up: the Online Learning Center shall provide basic, professional and special courses for Baling Opera, Xiang Opera and Jinghe Opera. The basic courses cover music theory and history, the specialized courses delve into performance skills and repertoire rehearsals, and the special courses focus on the cultural values and classical practices of the operas. The courses should combine theory and practice, and through video tutorials and seminars, help students master performance skills and knowledge of music culture.

#### 4.3.6 Summary of this section

The online education and inheritance of Hunan opera non-heritage culture is gradually developing, a trend that not only benefits from the application of digital platforms and Internet technology, but also is of great significance for the wide dissemination of traditional opera arts such as Baling Opera, Xiang Opera, and Jinghe Opera, which are especially attractive to the younger generation. This online education mode not only helps the preservation and inheritance of opera art, but also provides a new way for the dissemination and development of opera music, as well as promotes the exchange and cooperation of opera art. In this context, the establishment of online learning centers is particularly important. Experts also point out that the establishment of online learning platforms should target different groups, including young opera enthusiasts, professional actors, opera students, researchers, scholars and the general public. In order to meet the needs of these different groups, opera enthusiasts have a strong interest in classical singing, opera makeup and costumes. Experts preferred to learn about the history and culture of opera, its language and accompanying instruments through online courses, which provided a clear direction for the design of subsequent learning platforms. Of course, the experts also talked in depth about the importance of online learning centers to educate and disseminate the history and culture, classic repertoire, performance skills and instrumental playing of Hunan opera non-heritage. In particular, the "inner eight gongs" and "outer eight gongs" of Baling Opera, the use of eyes and singing of Xiang Opera, the gongs and drums and instrumental techniques of Jinghe Opera, as well as the playing techniques and cultural

background of Erhu. At the same time, the inheritor suggests that the innovative approach of presenting classic repertoire, make-up, and costumes with narration via high-definition video will enable the eLearning Center to offer modular opera teaching videos, lectures, and workshops, further enriching the learning experience to pass on its art and culture. Although, online learning also provides convenience for opera enthusiasts, especially for those who live remotely or have irregular schedules. However, experts also suggested that there are still challenges such as lack of professional feedback, practice opportunities, live demonstrations, and understanding of complex music theory and advanced performance techniques.

At present, Hunan opera non-heritage such as Baling Opera, Jinghe Opera and Xiang Opera lack a specialized online teaching platform, and only some of the videos of performances and lectures can be viewed online. This situation highlights the urgency of establishing a comprehensive and professional online teaching platform. Although the mainstream online learning platform has teaching videos of Peking Opera and other operas, it lacks the non-legacy content of Hunan's local operas, which points out a clear development direction for the design of the subsequent learning platform. In order to improve the interactivity and interest of online teaching, experts believe that attention needs to be paid to the preferences of enthusiasts for online teaching forms; they also believe that learners may prefer online teaching forms that provide opportunities for interaction and communication, which provide lifelong learners with flexible learning modes and rich teaching resources, which help them to learn the art of opera anytime, anywhere, and to improve their performance level, as well as through the data analysis and evaluation functions to enhance the learning effect. Finally, the online learning center should provide basic, specialized and special courses for Baling Opera, Xiang Opera and Jinghe Opera. The basic courses cover music theory and history, the specialized courses delve into performance techniques and rehearsals, and the special courses focus on the cultural values and classical practices of the plays. By combining theory and practice, video tutorials and seminars, we can help students master

performance skills and knowledge of music and culture, and contribute to the inheritance and development of Hunan Opera's non-legacy.

To sum up: driven by the wave of digitization, the online education and inheritance of Hunan opera intangible cultural heritage is taking on a new vitality. This kind of inheritance using digital platforms and Internet technology not only opens up new paths for the preservation and dissemination of the art of opera, but also successfully attracts the attention of the younger generation. The establishment of the online learning center has become an indispensable treasure trove of knowledge for different groups of people, including opera enthusiasts, professional performers and students. In the design of the course content, experts have suggested that it must take into account both tradition and modernity, providing a rich program including classical singing, historical and cultural background, and performance techniques. Through high-definition videos and interactive teaching methods, the experience of learners is greatly enriched, making them feel as if they were in the scene of the opera and experiencing the unique artistic charm. At the same time, professionals also pointed out the challenges facing current online education, such as the lack of professional feedback and practice opportunities. These challenges remind us how important it is to establish a comprehensive and professional online teaching platform. According to the experts' opinions, the platform designed in this study should not only provide courses ranging from basic to professional to those with local characteristics, but also be able to provide learners with opportunities for practice and feedback in order to promote the inheritance and development of Hunan opera's non-heritage culture.

#### **4.4 Comparative analysis of 5 major learning platforms under the principle of lifelong education**

The development of lifelong education in China has gone through a period of (1977-1991) theoretical introduction and (2012 - present) mature development, and now has a history of more than 40 years (Hou Huaiyin and Wang Xiaodan, 2021). Under the influence of the concept of lifelong education, online learning in China has also become a new type of learning that is web-based, flexible and widely accepted by the public.

There are many mainstream learning platforms in China today, and the more mature online learning platforms are centrally presented as a collection of Internet-based educational resources and learning tools, aiming to provide students with convenient access to online learning and training. This study selects five non-profit platforms, including Netease Open Class, MOOC, Love Course, Xuedang Online, and Wisdom Tree, as case studies to be analyzed and researched according to the concept of lifelong education.

The 5 learning platforms, Netease Open Class, MOOC, Love Course, Xuedang Online and Wisdom Tree, are in line with the 5 basic principles of lifelong education. These 5 principles include: the need to ensure continuity of education to prevent the loss of knowledge; the fact that educational projects and methods should be adapted to the specific and pre-existing goals of each community; the shaping of human beings at all levels of education to adapt to a way of life that can accommodate evolution, change, and transformation; the mobilization and use of all means of training and information on a large scale, transcending the traditional definitions of education and the boundaries of the system; and the establishment of a strong link between the various actions (technological, political, industrial, commercial, etc.) in close connection with the objectives of education (Lengrand, 1975). It is summarized as follows: 1. Ensuring educational continuity and preventing the loss of knowledge; 2. Educational projects and methods should be adapted to the specific objectives of each population group; 3. Education aims to prepare people for a lifestyle of constant evolution, change and transformation; 4. Mobilizing and utilizing, on a large scale, all the training and information tools available, going beyond the traditional definitions of education and the institutional limits; and 5. Establishing a strong link between actions and educational objectives.

#### **4.4.1 Ensuring educational continuity and preventing knowledge loss**

According to the principle of lifelong education, five non-profit platforms, namely, Netease Open Class, MOOC, Love Course, Xuedang Online, and Wisdom Tree, are selected as the cases for this study, and the study will be carried out in terms of

both the mechanism of updating learning resources and the learning resources for Principle 1.

### 1. Mechanism for updating learning resources

Table 24 demonstrates the characteristics of the five platforms (Netease Open Class, MOOC, Love Course, Xuedang Online, and Wisdom Tree) in terms of their learning resources updating mechanisms. The following is an analysis of each platform's learning learning resource update mechanism:

The NetEase Open Course platform is committed to introducing new courses and maintaining the diversity and breadth of content by introducing international high-quality course resources through cooperation, but the course content is updated slowly, mainly from existing open university courses, which may not reflect the latest academic research and industry dynamics in a timely manner; however, it is rich in course resources, and only in certain fast-developing fields (e.g., artificial intelligence and data science) the content lags behind.

The MOOC learning platform attaches great importance to the updating of learning resources, and cooperates with many universities and educational institutions to regularly update existing courses to ensure that the course content is in line with the latest academic research and industry practices, and remains cutting-edge and practical. Courses in emerging fields, such as blockchain and quantum computing, can be introduced quickly.

Love Course Learning Platform emphasizes the continuous updating of learning resources and works closely with universities to ensure that course content reflects the latest academic research and industry trends. Moreover, it is able to continuously improve and enrich the course content based on user feedback and subject development trends, and regularly launches new courses in the fields of science and technology, medicine and economics to ensure that learners acquire cutting-edge knowledge.

The Academy eLearning platform is able to adjust course content in a timely manner taking into account user feedback and industry trends, and collaborate

with universities and industry experts to launch new courses and update existing ones on a regular basis to better meet demand. It is able to provide timely and up-to-date learning resources in fast-developing fields (e.g. artificial intelligence and blockchain).

The Wisdom Tree learning platform emphasizes the continuous updating of learning resources, especially in terms of university education, and cooperates with major universities. Courses are regularly updated according to the latest academic research and industry development to ensure that the content of the courses is cutting-edge, practical and current. Moreover, the platform develops application-oriented courses through cooperation with enterprises, providing learning resources that are closely related to actual work demands.

Table 24 Comparison of Learning Paths on Major Platforms

Platform	Mechanisms for updating learning resources
Netease Open Class	<p>Although the platform's learning resources are abundant, it may not be as good as some other online education platforms focusing on academic research in terms of continuous updating. As most of its courses are derived from already recorded open university courses, the pace of content updating is relatively slow. In addition, many of the courses on the platform may not be able to reflect the latest academic research and industry developments in a timely manner due to the limitations of the original resources. This means that in certain fast-developing fields, such as artificial intelligence and data science, the course content of NetEase Open Course may lag behind current technological developments. Nevertheless, the platform remains committed to introducing new courses and to maintaining the diversity and breadth of the platform's content by introducing more international quality course resources through cooperation.</p>

Table 24 (Continued)

Platform	Mechanisms for updating learning resources
MOOC	<p>The platform attaches great importance to the updating and maintenance of learning resources. The platform cooperates with many universities and educational institutions to ensure the timely updating and expansion of course content. With the development of science and technology and the progress of academic research, the platform is able to quickly introduce courses in emerging fields, such as blockchain technology, quantum computing and other cutting-edge disciplines. At the same time, the platform also regularly updates the content of existing courses to ensure that they are in line with current academic research and industry practice. For example, courses in the fields of computer science and data science are usually adapted and updated in line with the development of technology and the introduction of new tools, so as to maintain the cutting-edge and practicality of the course content.</p>
Love Course	<p>The Platform attaches great importance to the continuous updating of learning resources. The Platform works closely with major universities to ensure that course content reflects the latest academic research and industry developments. Especially in the fields of science and technology, medicine and economics, Love Courses regularly updates and launches new courses to ensure that learners have access to the most cutting-edge knowledge. For example, in the medical field, as new technologies and methods emerge, Love Courses will update the relevant course content in a timely manner in order to keep the courses practical and cutting-edge. In addition, the platform constantly improves and enriches course content based on user feedback and discipline development trends to ensure that learners' needs are fully met.</p>



Table 24 (Continued)

Platform	Mechanisms for updating learning resources
Xuetang Online	<p>The platform focuses on the continuous updating of learning resources to ensure that the course content is up to date. The platform cooperates with major universities and industry experts to regularly launch new courses and update the content of existing courses. This dynamic updating mechanism ensures that the course content is cutting-edge and practical, especially in areas of rapid technological development, such as artificial intelligence, blockchain, etc., Academy Online is able to provide the latest learning resources in a timely manner. In addition, the platform also adjusts course content and structure in conjunction with user feedback and industry trends to better serve the needs of learners.</p>
	<p>The platform emphasizes the continuous updating of learning resources, especially in terms of university education. Wisdom Tree cooperates with major universities to ensure the cutting-edge and practicality of course content. Courses on the platform are regularly updated based on the latest academic research and industry developments to keep them current. For example, in areas such as economic management and information technology, WisdomTree's courses will constantly adjust and supplement their content in line with market demand and technological advances. At the same time, Wisdom Tree develops application-oriented courses through cooperation with enterprises to provide learners with learning resources that are closely related to actual work demands. This continuous updating mechanism ensures that learners are able to acquire the latest knowledge and skills.</p>

In summary: MOOC, Love Course, Xuedang Online and Wisdom Tree have all established a relatively perfect continuous updating mechanism, which can ensure the cutting-edge and practicability of the course content, but NetEase Open Course is relatively lagging in the updating mechanism, which may be difficult to satisfy the fast-changing knowledge demand. The timely updating of Love Course and



Xuedang Online in areas such as science and technology and medicine is particularly notable, which can better meet learners' demand for the latest knowledge; Wisdom Tree, on the other hand, strengthens its docking with the market demand through cooperation with enterprises and provides learners with application-oriented course resources. The two learning platforms, Love Course and Academy Online, are also able to make course content adjustments based on user feedback. There are significant differences between platforms in terms of learning resource updating mechanisms, and learners should also consider their own learning needs and goals when choosing a platform and select the most suitable resources.

## 2. Comparison of Learning Resources by Learning Platform

The learning resources are divided into two parts, namely, learning materials (presentations, extended reading materials, reference materials) and video resources.

The presentation mainly refers to the PPT involved in the video course, the extended reading material mainly refers to PDF documents or materials in the form of hyperlinks, and the reference material mainly refers to the references or bibliography provided by the platform course. Most of the course materials in the platform of "Xuedang Online" exist in science courses, and less in liberal arts courses, and no reference materials are set up, but there are essential notes to provide resources for learners; most of the courses in the platform of "NetEase Open Class" have presentations and reading materials, and the teaching reference section of the teaching materials is set up; "NetEase Open Class" is a platform with a presentation and reading materials, and the teaching reference section of the teaching materials is set up. MOOC" platform courseware part of the set of presentations or PDF documents; "Wisdom Tree" platform only a few courses in some chapters have information content; "Love Course" platform in each course, but not in all courses. The "Love Courses" platform sets up a reading section in the last chapter of each course, and a bibliography is set up in the course introduction interface. The "Netease Open Course" platform is relatively complete

in terms of learning material settings, while the "Wisdom Tree" platform needs to be strengthened in terms of material settings.

In Table 25, Learning Online is the most comprehensive in terms of video functions, providing not only basic functions such as subtitles and speech rate adjustment, but also video download and positioning functions, which support more flexible and diversified learning, MOOC and Love Courses provide better support in terms of speech rate adjustment, clarity adjustment, and progress adjustment, but they lack the functions of positioning according to subtitles and video download, which may have some limitations for learners who need precise or flexible operation. learners who need precision or flexibility. Although Netease Open Class provides the function of positioning according to subtitles, it lacks basic video operation functions such as clarity adjustment and progress adjustment, which may have an impact on the user viewing experience, especially for more demanding network conditions. Wisdom Tree is more limited, and although it provides basic functions (such as subtitle and speech speed adjustment), it lacks more advanced functions such as video download, positioning according to subtitles and progress adjustment.

Table 25 Comparison of video features of major platform modules

sports	Netease	MO	Love	Xueta	Wisdo
event	Open Class	OC	Course	ng Online	m tree
video	√	√	√	√	√
Positioning	√	x	x	√	x
Video	x	x	x	√	x
pitch	√	√	√	√	√
Sharpness	x	√	√	√	√
scheduling	x	√	√	√	√

Overall, Netease Open Class is more complete in terms of learning materials, while Wisdom Tree needs to strengthen its materials. With its comprehensive video features, Xue Tang Online provides users with more learning support, while Netease Open Class and Wisdom Tree may have some limitations in terms of flexibility and user experience.

According to the comparison of lifelong education principle 1, it is found that: NetEase Cloud Classroom, MOOC, Love Course, Xue Tang Online and Wisdom Tree have established a mechanism for continuous updating of course content to ensure the cutting-edge and practicability of the course content, so as to prevent the loss of knowledge; the updates of Love Course and Xue Tang Online in science and technology, medicine and other fields are particularly timely, which meets the learners' needs for the latest knowledge and ensures the consistency of education; Wisdom Tree Through cooperation with enterprises, Wisdom Tree provides application-oriented course resources, which ensures the integration of learning content with market demand and avoids knowledge lag; Love Course and Study Hall Online are able to adjust the course content according to users' feedback, which ensures the consistency and adaptability of education.

All five learning platforms mentioned above keep their courses cutting-edge through a continuous updating mechanism. Love Courses and Academy Online are rapidly updated in the fields of science and technology and medicine, while Wisdom Tree provides application-oriented courses in line with market demand, and Love Courses and Academy Online also adjust their courses in response to user feedback.

#### **4.4.2 Educational programs and methods should be adapted to the specific objectives of each population group**

In accordance with Principle 2 (Educational programs and methods should be adapted to the specific goals of each population), the study will compare the learning platforms in terms of both their curriculum and their resources for course instruction.

### 1. Comparison of course offerings across learning platforms

The comparison of course offerings across learning platforms is mainly categorized and compared according to the major categories of disciplines that are currently dominant. From the data, engineering has the largest number of courses among all disciplines, especially on the MOOC and Wisdom Tree platforms, with 676 and 207 courses respectively. Agronomy has the least number of courses among all disciplines, especially on the Love Course and Wisdom Tree platforms, with only 5 and 1 courses, respectively. The number of courses in engineering and science on the MOOC platform is significantly higher than that of other disciplines, while the number of courses in medicine and education on the Love Course platform is higher, reflecting the positioning of the different platforms and the user groups. The distribution of some disciplines on different platforms is relatively balanced, e.g. engineering has a much larger number of courses on MOOC platforms than on other platforms. Usually, disciplines with a larger number of courses may be more popular among students and have greater market demand.

By comparing the number of courses on different platforms, it is possible to see how much each platform invests in and focuses on different disciplines. For example, Netease Open Class has a higher number of courses in Philosophy and Art, while Scholastic Online has a higher number of courses in Pedagogy and Engineering.

Table 26 Comparison of the number of courses set up for each platform

academic discipline	Platformbuilding				
	Netea	MOO	Xueta	Love	Wisdo
	se Open	C	ng Online	Course	m tree
	Class				
philosophy	70	37	81	8	6
economic	177	260	176	46	4
legal studies	132	136	125	20	7
pedagogical	73	195	94	44	9
literary	161	163	64	54	19
history	49	50	69	4	4
Science	200	458	204	106	3
Engineering	298	676	359	207	7
agronomy	46	64	5	16	1
Medical	167	204	129	43	16
Art	105	141	156	35	15

## 2. Comparison of Learning Platform Course Instruction Resources

Comparison of course instructional resources focuses on video introductions, instructors, course overview, course evaluations, learning objectives, course chapters, preparatory knowledge, assessment criteria, certificate requirements, and reference materials.

Table 27 Comparison of course guidance resources across learning platforms

Platform	Netease Open Course	MOOC	Love Course	Xuetan Academy Online	Wisdom Tree
Video	√	√	√	√	√
Teacher	√	√	√	√	√
Course	√	√	√	x	√
Course	x	√	√	√	x
Learning	√	√	x	x	√
Course	√	√	√	√	√
background	x	√	x	x	x
Appraisal	√	√	x	x	√
Certificate	x	√	x	x	x
bibliography	√	√	√	x	x

As can be seen from Table 27, MOOCs show the most comprehensiveness in providing resources for course guidance, covering most of the key resources (e.g., course evaluations, preparatory knowledge, assessment criteria, and certificate requirements). This comprehensiveness provides learners with complete learning support and is especially friendly to those learners who are more self-directed. Netease Open Course and Love Course perform well in most aspects, but lack in areas such as course evaluation, preparatory knowledge and certificate requirements. These platforms are better suited for learners who do not need much external motivation or structured instruction. Academy Online has relatively little coverage of course guidance resources, and the lack of course overviews, learning objectives, preparatory

knowledge, and reference materials may make course selection and learning path planning challenging for learners. Wisdom Tree is moderate and provides some resources, but lacks reference materials and course evaluations, which may impose some limitations on users who need to study in depth or rely on other feedback. In summary: MOOC platforms have a clear advantage in the completeness of course guidance resources, while other platforms' lack of some specific resources may affect users' learning experience.

According to the principle of "Educational programs and methods should be adapted to the specific goals of each population group" of the 5 principles of lifelong education, the comparison shows that the curriculums of the major platforms basically include all the current standards of the major disciplines, although there are some differences in the curricula of the different platforms, which reflect their respective positioning and the needs of the user groups. MOOC focuses on engineering and science, while Love Courses focuses more on medicine and education, adapting to the learning goals of different groups of people; MOOC provides comprehensive learning support resources and is suitable for self-directed learners; NetEase Open Classes and Love Courses lack part of the instructional resources, and are more suitable for users who do not need structured support; XueTang Online's resources have a smaller coverage, which may affect learners' course selection and path planning, and are less adaptable; Wisdom Online has a smaller coverage of resources, which may influence learners' course selection and path planning and are less adaptable; Wisdom Tree lacks in some resources, limiting in-depth learning and users who rely on feedback. These indicate that the educational programs and methods of the platforms are differentiated according to the specific learning goals and needs of the user groups.

Based on the principle of lifelong education, major online education platforms design course programs to meet different user needs. MOOC focuses on engineering and science, and Ai Course focuses on medical pedagogy. MOOC provides comprehensive resources, which are suitable for self-study; NetEase Open Class and Ai Course have fewer resources, which are suitable for users with strong self-

study ability; XueTang Online has limited coverage of resources, and Wisdom Tree is deficient in certain resources, which restricts in-depth learning. These differences reflect the platform's adaptive design for users' specific learning goals.

#### **4.4.3 Education aimed at preparing people for lifestyles characterized by constant evolution, change and transformation**

According to this principle to Netease Open Class, MOOC, love course, school online, Wisdom tree five non-profit course platform as the case of this study, the study will be from the course design mechanism, each learning platform organizational composition comparison, each platform market influence three aspects of comparison.

##### **1. Curriculum design mechanism**

Table 33 demonstrates the characteristics and differences of the five platforms (Netease Open Course, MOOC, Love Course, Xuedang Online, and Wisdom Tree) in terms of course design mechanisms.

The courses of NetEase Open Course are designed with broadness and popularity as the core, and the main goal is to provide rich knowledge resources suitable for learners who are interested in a certain field but do not intend to study it in depth, emphasizing the popularization and enlightenment of knowledge. Most of the courses come from the open courses of famous universities outside China and cover a wide range of fields. As an excellent learning platform, it is particularly suitable for easy learning and expanding knowledge, but the course content is usually more generalized and abbreviated, lacking opportunities for systematic in-depth study.

MOOC's courses are designed to be systematic and academic in nature, relying on the high-quality course resources of renowned universities at home and abroad, and are suitable for learners aspiring to academic research or professional development, focusing on the combination of theory and practice. It covers multi-level courses from undergraduate to graduate level, ensuring depth and rigor. Provides a complete knowledge system and practical application scenarios so that learners can apply theories to real-world problems, but may not be too friendly to beginners.

With higher education as its core, Love Course is designed to be systematic and professional, suitable for users who wish to acquire systematic



professional knowledge through online learning, emphasizing the combination of theory and practice. Taught by professors and experts from famous universities in China, the content covers a wide range of fields. The course content is in-depth and detailed, ensuring academic depth and applicability, but is less attractive to general interest learners.

Based on the constructivist learning theory and the concept of lifelong learning, Xuetang Online has obvious modularization and diversification characteristics, which is suitable for both beginners and professionals to meet their needs for advanced learning, and most of the courses are designed to be closely related to the needs of the industry, especially in the fields of science and technology, engineering and business. The content of the courses is both academically valuable and practically applicable, and a certification system is provided to enhance career orientation, although the depth of certain disciplines may not be as deep as in other platforms.

The Wisdom Tree program is designed with blended learning as the core, and adopts a teaching mode that combines online and offline. It is suitable for users who need to combine theory and practice, especially in the field of undergraduate education, vocational education and continuing education. The teaching mode adopts the "flipped classroom" model, which promotes independent learning and classroom interaction, and has the advantage of enhancing learners' independent learning ability and practical skills, but it may be a challenge for students who are not good at self-study. However, it may be challenging for students who are not good at self-learning.

Table 28 Comparison of course design mechanisms across platforms

Platform	Curriculum design mechanisms
Netease Open Class	<p>The design of the courses is centered on breadth and popularity, with the main objective of providing the public with rich knowledge resources covering a wide range of fields and disciplines. Most of these courses come from the open courses of famous universities at home and abroad, covering a wide range of fields from humanities to science and technology. The course design of NetEase Open Classes is more generalized, focusing on the popularization and enlightenment of knowledge, and suitable for learners who are interested in a certain field but do not intend to study it in depth. This design makes NetEase Open Classes an excellent learning platform, especially for users who want to expand their knowledge and cultivate their interests through an easy learning format. However, because their course content is usually more generalized and abbreviated, fewer courses are suitable for systematic in-depth study.</p>
MOOC	<p>The curriculum is designed to be systematic and academic in nature, relying mainly on the high-quality curriculum resources of well-known universities at home and abroad. These courses strictly follow the curriculum standards of higher education and cover multi-level courses from undergraduate to graduate level. The curriculum design of the platform focuses on the solid mastery of theoretical foundations, while combining practical cases and application scenarios, so that learners can not only understand the basic theories, but also apply them to practical problems. For example, the computer science and technology courses on the platform cover a complete knowledge system from basic programming to advanced algorithms and artificial intelligence, providing learners with a systematic learning path. This design ensures</p>

Love Course

Xuetang  
Online

the depth and rigor of the courses, making them suitable for learners interested in academic research or professional development.

The curriculum is designed with higher education in mind, providing systematic and specialized course content. Courses on the platform are mainly taught by professors and experts from famous universities in China, covering a wide range of fields from basic undergraduate courses to advanced graduate courses. The design of Ai courses emphasizes the combination of theory and practice, and the course content is in-depth and detailed, which is suitable for users who wish to acquire systematic professional knowledge through online learning. For example, the engineering, medical and economics courses on the platform not only cover the latest results of academic research, but also include a large number of practical cases and application scenarios. This design ensures the academic depth and applicability of the courses, making them particularly suitable for learners who wish to enhance their professional competence or prepare for higher degrees. The design of the courses is characterized by obvious modularization and diversification. Based on constructivist learning theory and the concept of lifelong learning, Xuetang Online offers a wide selection of courses ranging from basic knowledge to advanced professional skills. This design not only covers various subject areas, but also focuses on the combination of academics and practicality. Academics Online's courses are often closely related to industry needs, especially in the fields of science, technology, engineering and business, and the course content is not only academically valuable, but also practically applicable. For example, the course content in popular fields such as data science and artificial intelligence is designed to be in-depth and easy to understand, which is suitable for both beginners and professionals to meet their needs for advanced learning. In addition, the

certification system provided by Xuetang Online further enhances the career-oriented nature of the courses, enabling learners to obtain verifiable professional qualifications through the courses.

Wisdom tree

The course design is centered on blended learning, emphasizing the combination of online and offline teaching modes. The platform not only provides a large number of online courses, but also integrates the content with offline teaching in universities. Wisdom Tree's courses cover a wide range of undergraduate education, vocational education and continuing education, and are designed to emphasize both knowledge transfer and competency development. For example, through the "flipped classroom" model, Wisdom Tree moves the content of traditional classroom teaching online, allowing students to learn theoretical knowledge independently before class, and focusing on interactive discussion and practical application in class. This kind of course design helps to improve learners' independent learning ability and practical skills, which is suitable for users who need to combine theory and practice.

---

Comprehensive analysis: Netease Open Class and MOOC emphasize more on the breadth and academics of the courses, which are suitable for learners at different levels, while Love Course and Xuedang Online pay more attention to the systematic and specialized nature of the courses, targeting the needs of users in specific fields; Wisdom Tree enables learners to be more actively involved by means of blended learning and flipped classroom, which is suitable for the needs of modern education. The modularized design of Xaitang Online provides learners with flexible choices and adapts to the concept of lifelong learning. The course design of each platform meets the needs of different learners to a certain extent, ranging from broad knowledge acquisition to professional skills enhancement. Overall, each platform has its own characteristics in terms of course design mechanism, which can meet the needs of

different learners. When choosing a learning platform, users can select the most suitable course design and learning path according to their own learning objectives, interests and background.

## 2. Comparison of Organizational Composition of Learning Platforms

The platform's classroom organization is used to help learners progress through the various learning activities, and the content of the activity design reflects the instructional design strategy and has a significant impact on learners' goal achievement. The classroom organization of several platforms is compared here:

Table 29 Organizational composition of the major course platforms

Platform	Netease	MOOC	Love	Xueta	Wisd
Organizational components of the course	Course	bulletin	Cour	Cours	Progr
	Course	Tests	Teac	feedb	online
	Chapter	exams	teac	home	meet
	Tests	feedba	refer		place
	feedback		Cour		

Table 29 shows that NetEase Open Course focuses on providing basic course information, with a focus on course content and chapter navigation to help learners easily follow the course progress. The presence of quizzes and assignments, and discussion forums indicates that the platform focuses on learning interaction and practice. Although it does not show detailed teaching results or teacher team information, the basic functions are more comprehensive.

The MOOC platform provides an announcement function to post course updates, in addition to evaluation methods such as quizzes and assignments, and exams, indicating strong support for an academic evaluation system. The presence of discussion forums also emphasizes the interaction between learners. However, the

platform is relatively lacking in the presentation of course introductions or teaching effectiveness.

The information on the Love Course platform is more complete, including a comprehensive display of the course introduction, the teaching team and teaching results, enabling learners to have a clear understanding of the quality of the course and the background of the teaching team. The reference materials provided help to assist learning, reflecting the platform's advantage in content depth. Overall, Love Course focuses more on the professionalism and transparency of teaching.

The Learning Xuetang Online provides course information and course chapters along with homework assignments and discussion forums, emphasizing the learning and interactive nature of the course content. Compared to Love Course, Schoolhouse Online focuses more on course content distribution and discussion among learners, but lacks transparent information about the instructor team and teaching effectiveness.

The Wisdom Tree platform has more comprehensive functions, including meet-and-greet settings in addition to traditional online courses and homework tests, suggesting that the platform may support a combination of online and offline teaching methods. The presence of course design indicates that the platform has specific requirements for course structure and design, emphasizing the overall structure of the course and the standardization of the teaching process.

To summarize: each platform has its own advantages in terms of functional design and user experience. Love Course and Wisdom Tree pay more attention to the meticulousness of course design and transparency of teaching, while Netease Open Class and Xuedang Online provide a simpler and more intuitive learning experience, and MOOC uses quizzes and exams as the main means of assessment.

### 3. Market influence of major platforms

Table 30 shows the market influence of the five platforms (Netease Open Class, MOOC, Love Course, School Online, and Wisdom Tree):

NetEase Open Class has been a member of the International Open Courseware Alliance since 2010, launching 1,200 episodes of open class videos from famous schools around the world and leading online education in China. By integrating the resources of famous universities at home and abroad, such as Peking University and Tsinghua University, promoting the concept of lifelong education, and cooperating with international organizations such as TED, Khan Xuetang and Coursera, it has enhanced its market influence.

Since its inception, the China University MOOC has attracted a large number of self-directed learners, demonstrating the domestic market's demand for this type of learning. Its courses have quickly attracted tens of thousands of learners, with some courses having thousands of enrolments within a few months, reflecting the market's welcome for diverse and flexible learning content. In addition, the platform is committed to producing courses for a wide range of learners, further enriching the domestic MOOC market.

Love Course, a higher education resource sharing platform supported by the Ministry of Education and the Ministry of Finance, has been open to the public for free since 2013, offering multidisciplinary undergraduate courses from 78 universities, enhancing its market recognition.

Xuedang Online, China's first MCT platform initiated by Tsinghua University, has partnered with top international universities to offer 1,973 courses as of March 2019, including credit certifications and micro-degree programs, enhancing the diversity of the education market. As the online education platform of UNESCO's International Center for Engineering Education (ICEE), it enhances international reach and expands collaboration opportunities.



Wisdom Tree, operated by Shanghai Excellence Ruixin Digital Technology Co., Ltd, offers 2010 online courses and serves more than 2,800 member schools. The platform has helped more than 20 million college students take and earn credits across schools, promoting cross-campus learning and mutual recognition of credits, and greatly enhancing user engagement and market influence.

Table 30 Market Impact of Major Platforms

Platform	market influence
Netease Open Class	<p>On January 18, 2010, NetEase joined the International Open Courseware Consortium (OCWC) and launched 1,200 open course videos from famous universities around the world. A year later, NetEase started to launch open courses from Chinese universities, and rapidly grew into a pioneer of online education in China through cooperation with TED, Khan Academy, Coursera, etc.</p> <p>On October 8, 2013, NetEase Open Class announced that it had officially launched a comprehensive cooperation with Coursera, a large-scale open online course program in the U.S. NetEase Open Class is a typical representative of China's open courses, and its course resources are mainly used by the Chinese universities and universities. As a typical representative of China's open courses, NetEase Open Classes' course resources are mainly based on resource integration, which brings together open courses from famous schools in various countries and regions of the world into the platform of NetEase Video and Open Classes, realizing the broadness of the concept of lifelong education. NetEase Open Classes started in 2010, and the program began to integrate high-quality</p>



---

resources and courses from domestic famous universities in the second half of 2011. These courses come from Peking University, Tsinghua University and other domestic famous higher education institutions, and their lecturers are not lacking in domestic famous experts in the field of engineering and Chinese traditional culture.

MOOC

MOOC in Chinese universities is characterized by open resources and interactive discussions. In the first three months of its operation, the Chinese university quality resource sharing courses collected nearly 10,000 learners, and the number of learners reached 60,000 in nine months, which indicates that there are a large number of independent learners in China, and that there is indeed an audience base for MOOCs in China. Some courses had more than 600 participants in the first three months, and in the ninth month, the maximum number of participants in several disciplines had reached more than 3,000, which shows that the production of content for non-specific learners is not the monopoly of foreign universities.

Love Course

On June 26, 2013, the first batch of China's university resource sharing courses were officially opened to the public for free through the "Love Courses" website. On June 26, 2013, the first batch of Chinese university resource sharing courses were officially opened to the public for free through the Love Courses website. The first batch of China's university resource sharing courses open to the public focuses on a wide range of university public basic courses, professional basic courses and professional core courses, covering 10 disciplines such as

science, engineering, etc., and containing 84 undergraduate courses from 78 universities.

Xuetang Online

Tsinghua University initiated the establishment of China's first catechism platform, which is a platform for research exchange and application of results of the Online Education Research Center of the Ministry of Education, as well as an online education platform of the International Center for Engineering Education (ICEE) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). 2015, the high-quality courses of dozens of domestic and foreign top universities, such as Tsinghua University, Peking University and the Massachusetts Institute of Technology (MIT), have begun to operate in "In 2015, quality courses from dozens of top universities in China and abroad, including Tsinghua University, Peking University, and MIT, began to run on Xuedang Online, covering a wide range of fields such as computer science, economics, management and entrepreneurship. As of March 1, 2019, the platform has launched 1,973 courses, including credit independent certification courses, micro-degree courses, and rain classrooms, in addition to normal drop-in courses.

Ltd. is a large-scale global credit course operation and service platform.

Wisdom tree

With 2010 courses online and more than 2,800 member schools served, more than 20 million college students have studied across schools and earned credits through WisdomTree.

---

Comprehensive analysis: In China's online education market, NetEase Open Class and MOOC occupy an important position by virtue of their early advantages and wide audience; Love Course relies on policy support to rapidly enhance market recognition; and Xuedang Online and Wisdom Tree enhance market influence through cooperation with top universities and rich course resources. Each of these platforms has its own characteristics, which together promote the rapid development of online education and meet different learning needs.

According to the comparison of the 5 principles of lifelong education, "education aims to prepare people to adapt to lifestyles of continuous evolution, change and transformation", it is found that the 5 major learning platforms can satisfy this principle. Among them, Netease Open Class and MOOC focus on the breadth and academics of the courses to meet the needs of learners at different levels and help them adapt to the diverse and ever-changing needs of their lives and careers; AiCourse and XueTang Online meet the needs of users in specific fields through the design of systematic and specialized courses and help learners improve their professional skills to cope with changes and transformation in the industry; Wisdom Tree helps learners adapt to changes and transformation in the industry through modern educational methods such as blended learning and flipped classroom. and modern education methods such as flipped classroom, encouraging learners to participate actively and adapt to the rapidly changing ways of learning and working in modern society; and the modularized design of Xuedang Online provides learners with flexible choices, supports lifelong learning, and helps people cope with the demands of lifestyle and career transformation. These commonalities suggest that the platforms prepare learners to adapt to evolving, changing and transforming lifestyles through flexible and diverse course designs.

The five major online learning platforms mentioned above all follow the principle of lifelong education and are committed to fostering learners' ability to adapt to change. Netease Open Class and MOOC offer a wide range of academic courses to meet the needs of different levels; Love Course and Xuetang Online enhance learners'

professional skills through professional course design; Wisdom Tree adopts modern educational methods and encourages active learning; and Xuetang Online's modularized design supports flexible learning, which together promote learners' ability to adapt to changes in their lives and careers.

#### **4.4.4 Extensive use of various training and information tools to break through traditional definitions of education and institutional constraints**

According to the principle of lifelong education, five non-profit course platforms, including Netease Open Class, MOOC, Love Course, Xuedang Online, and Wisdom Tree, are selected as cases for this study. Comparison is made for principle 4 from the interactive discussion function and assessment method of each learning platform.

##### **1. Comparison of interactive discussion functions of various learning platforms**

Table 31 shows the differences between the five platforms (NetEase Open Class, MOOC, Love Course, Learning Online, and Wisdom Tree) in terms of interaction and discussion functions. Through comparison, we can see the different focuses of each platform in designing discussion forums and learner interaction, especially in terms of functional complexity, interactive forms and user experience. The following is a specific analysis:

In terms of the complexity of interactive functions: MOOC has the most complex discussion forum function, providing multiple interactive channels and search functions, making it more flexible and user-friendly. Xue Tang Online also has strong interactive functions, providing voting and filtering functions, while Netease Open Class and Love Course are relatively simple. The interactive features of Netease Open Class and Love Course are more basic and may focus more on the course content itself rather than social interaction. In contrast, MOOC and Learning Online promote communication and interaction through features such as voting and topic filtering. Wisdom Tree also allows interaction through meet-and-greet sessions, suggesting that it focuses more on real-time, face-to-face communication rather than discussion via text.

This approach may be more suitable for students who need real-time feedback and direct interaction, providing a more dynamic learning experience.

Table 31 Discussion forums on major platforms

Platform	Netease Open Class	MOOC	Love Course	Xuetang Online	Wisdom tree
Interactive and discussion	Discussion boards are set up with discussion boards, number of posts and last posting time, and you can search the content of discussion boards with the top 100 posts.	Four types of discussion forums are set up, i.e., All Discussion Forum, Teacher's Q&A Forum, Communication Forum, and General Discussion Forum, where learners can post topics and search by keyword topics, replies, and comments. Each topic sets the latest post, last reply, number of replies, and number of votes.	Setting up discussion boards, not setting up meetup classes	Setting up discussion forums, filtering threads to find topics of interest, voting on posts to follow and reporting them	There is no discussion forum set up, but there are meetup classes

To summarize: MOOC is one of the platforms with the richest interactive features, which enhances communication among learners through multiple discussion forums and interactive mechanisms (e.g., replies, voting, etc.). Xuetang Online enhances learner engagement through multiple interactive features (voting, following, reporting, etc.), but still focuses on text-based communication mainly in discussion forums. Netease Open Class and Love Course provide basic discussion functions, but lack further interactive tools and are relatively single in function. Wisdom Tree, on the other hand, takes a different approach to the form of interaction by providing interactive opportunities through a more direct form of communication, such as meet-and-greet sessions, which are more personalized and synchronized, although they do not have traditional discussion forums. These differences demonstrate each platform's different strategies for promoting learner engagement and interaction.

## 2. Comparison of assessment methods across learning platforms

The platform provides performance assessment to enable learners to evaluate their learning outcomes in real time and adjust their learning behaviors in a timely manner. The provision of completion certification is an affirmation of the learner's learning results. Nowadays, the society is gradually recognizing the completion certification provided by authoritative platforms, so the platform's completion certification method is also gradually being paid attention to. As shown in Table 37: Netease Open Class and MOOC focus on assessing students' learning outcomes through comprehensive assessment methods (e.g., discussions, assignments, tests, etc.), especially emphasizing the importance of interactions and quizzes; Wisdom Tree is the most diversified in terms of assessment, which not only includes traditional learning progress and exams, but also specifically includes meeting class grades to make the assessment process richer and more multidimensional; Love Course and Xuedang Online do not explicitly specify the assessment method may mean that the assessment method is flexible and varied, depending on the course. In terms of completion certification: Netease Open Course, MOOC and Xuedang Online all provide electronic certificates so that learners

can obtain a certain degree of proof of learning; Wisdom Tree does not provide certificates, but all of its courses provide credit certificates, which suggests that the platform is more focused on academics than general proof of learning, and may be more suitable for academics to pursue further studies. Netease Open Class has a condition for certification that learners must take an offline exam and a flipped classroom, suggesting that the platform has higher certification requirements for its courses; MOOC offers free certificates but has the option of credit certification in some of its courses, which provides learners with flexibility in certification; and the Wisdom Tree Learning Platform focuses on credits, which implies that the platform is more oriented towards formal academic accreditation rather than general proof of learning.

Table 32 Modalities for assessing performance and certifying completion of major platforms

Platform	Netease	MOOC	Love Course	Xuetang Online	Wisdom tree
Assessment	Class browsing + objective exercises + in-class discussion s + free final exams	End-of-class assignments + wishful thinking quizzes + in-class discussions + final exams	Not specified	Not specified	Learning Progress Grade + Chapter Test Grade + Meet and Greet Grade + Final Exam Grade

Platform	Netease	MOOC	Love Course	Xuetang Online	Wisdom tree
	Free electronic version of the certificate	Provide free certificates electronically	Provision of certificates	Free electronic version of the certificate	No certificates available
Graduation certification	All courses, flipped classes and offline exams required	The Ministry offers credit certificates	Offer credit certificates	Some programs offer credit certification	All courses offer credit certification

Comprehensive analysis: NetEase Open Class and MOOC offer electronic certificates in terms of accreditation, but NetEase Open Class has more stringent requirements for accreditation (e.g., offline exams). Meanwhile, MOOC and other platforms offer higher academic recognition through partial credit certification. Love Course and Xuedang Online also offer credit certification and e-certificates, but do not provide details on certification requirements and grade evaluation. Wisdom Tree, on the other hand, uniquely focuses on academic credits rather than certificate provision, and is more suitable for learners who need to obtain formal academic credits through courses. The platforms reflect the differences in their course objectives and audience groups in terms of certification methods and grade ratings.

According to the five principles of lifelong education, "widely use all kinds of training and information tools, and break through the definition and system limitations of traditional education", the comparison reveals that: the platforms (MOOC, Love Course, Xuedang Online, Wisdom Tree) break through the limitations of traditional education authentication and provide diversified learning achievement assessment



through flexible authentication methods such as e-certificates and credit certificates. MOOC breaks the one-way communication in traditional education through rich interactive functions (discussion forums, replies, voting, etc.), enhances communication among learners, and promotes a more flexible learning mode; Wisdom Tree breaks through the traditional discussion forum mode through direct communication in the form of meet-and-greet classes, provides more synchronized and personalized interactive opportunities, and adapts to the needs of modern education. Xuetang Online and Wisdom Tree use a variety of interactive functions such as voting, following and reporting to further promote active participation of learners and break through traditional classroom restrictions. These demonstrate the platforms' use of a variety of tools to promote changes in the education model and break through the institutional limitations of traditional education.

#### **4.4.5 Establishing a strong link between action and educational objectives**

A comparative analysis is conducted based on Principle 5 in terms of learning paths, user self-directed mechanisms, and platform inclusiveness and feasibility.

##### **1. Learning Pathways**

Table 33 demonstrates the characteristics of the five platforms (Netease Open Course, MOOC, Love Course, Xuedang Online, and Wisdom Tree) in terms of the flexibility of learning paths:

The NetEase Open Class platform provides a high degree of freedom for users, who can choose courses at will according to their personal interests, which is particularly suitable for users who are free to learn, and can meet diversified needs, but it lacks systematic learning and clear guidance, and may not be suitable for learners who need to learn in a structured way.

MOOC platforms offer relatively conservative, often fixed and structured, learning paths that meet higher education standards for users who wish to follow traditional academic paths, especially learners earning degrees or certificates,

with limited freedom for learners to freely combine courses based on their individual interests and needs, although interdisciplinary courses offer a degree of flexibility.

The Love Courses platform allows users to freely choose courses based on their personal interests and learning goals, providing a high degree of flexibility for users who wish to learn at their own pace, especially for career demand-oriented learners. It can provide learners with cross-disciplinary learning opportunities to meet diversified needs and enable learners to switch between different disciplines.

The Xuetang Online platform allows independent selection of course modules based on personal interests, career needs or learning goals, forming a personalized learning path that is suitable for learners who wish to achieve coherence and consistency from introductory to professional, with the advantage of allowing learners to freely adjust the direction of their learning so as to achieve diversified learning goals.

Wisdom Tree's learning path is more structured, but offers some room for independent course selection, suitable for those who wish to add extra learning to their structured courses, with limited flexibility and the need to follow the course progression, but the interdisciplinary courses improve learning flexibility to a certain extent

Table 33 Comparison of learning paths across platforms

Platform	Learning Path
Netease Open Class	NetEase Open Course excels in learning path flexibility, as the platform offers a high degree of freedom, allowing users to choose courses at will based on their personal interests. Unlike more structured learning platforms, NetEase Open Course does not have strict learning path requirements, allowing learners to take courses at will according to their needs and interests, without having to consider prerequisite courses or learning sequences. This design is especially suitable for users who want to learn freely according to their interests, and meets the diverse needs of different learners. However, this high degree of flexibility also means that for those learners who need

---

MOOC	<p>systematic learning and clear guidance, it may be difficult for NetEase Open Course to provide adequate support and a structured learning experience. While MOOCs offer a rich choice of courses, they are relatively conservative in terms of the flexibility of learning paths. Since most of their courses are offered by universities and designed strictly according to the standards of higher education, the learning paths are usually fixed and offer less modular and flexible options. This design is suitable for users who wish to follow a traditional academic pathway system, especially those learners who wish to earn a degree or certificate through online learning. However, this structured design also means that learners' freedom is somewhat limited, making it difficult for them to freely mix and match learning content according to their personal interests and needs. Nonetheless, some of the interdisciplinary courses and integrated program courses on the platform alleviate this limitation to some extent by providing opportunities for multidisciplinary integration of learning.</p>
Love Course	<p>Love Courses excels in learning path flexibility. While most of the courses on the platform are structured university courses, Love Courses allows users to freely choose courses based on their personal interests and learning goals without having to follow a strict learning path. This design is particularly suitable for users who wish to learn at their own pace and according to their own interests. For example, a learner can select relevant specialized courses based on his or her career needs without having to follow the order of the traditional education system. Love Courses also offers several interdisciplinary learning opportunities, allowing learners to switch freely between disciplines to meet diverse learning needs.</p>
Xuetang Online	<p>Xuetang Online excels in the flexibility of learning paths. The platform allows learners to select course modules independently according to their personal interests, career needs or learning goals, forming a personalized learning path. This design not only promotes self-directed learning, but also supports learners' freedom to reorient themselves during the learning process. For example, a learner can start with a basic programming course and then gradually dive into a specific programming language or application area, such</p>

as Python data analytics or machine learning. This flexibility offers learners the possibility to go from introductory to specialized on the same platform, and also enhances the coherence and consistency of the learning experience. Wisdom Tree's performance in terms of learning path flexibility is moderate. Since its platform courses are often closely related to the curriculum system of universities, the learning path is more structured and users need to follow the course progress and requirements, with limited flexibility. However, Wisdom Tree provides a certain amount of space for independent course selection, so students can choose additional courses according to their personal interests or needs to enrich their knowledge structure. In addition, Wisdom Tree has also introduced a number of interdisciplinary courses to meet the diversified needs of some learners. Overall, although the learning path of WisdomTree is relatively fixed, the diversified course choices it offers improve the flexibility of learning to a certain extent.

---

Comprehensive analysis: Netease Open Class and Xuedang Online excel in flexibility, allowing learners to choose courses freely, which is suitable for the needs of independent learning; MOOC and Wisdom Tree are relatively structured, suitable for users pursuing systematic learning, but less flexible, and may not be able to fully satisfy the needs of independent learners; Ai Courses has struck a balance between flexibility and professionalism, allowing learners to choose courses according to their professional needs and Love Course strikes a balance between flexibility and professionalism, allowing learners to choose courses based on career needs and interests, reflecting the adaptability of the platform. Different platforms meet the needs of different learners in the design of learning paths, ranging from free learning to systematic learning, each with its own characteristics. All in all, there are significant differences in the flexibility of the learning paths of the platforms, adapting to the needs of different learners. Users can choose learning resources and platforms according to their own goals and interests.

## 2. User self-directed mechanism

Table 39 demonstrates the differences between the five platforms (Netease Open Class, MOOC, Love Course, Xuedang Online, and Wisdom Tree) in terms of user self-directed mechanisms:

NetEase Open Class provides a self-directed learning experience with independent course content and no fixed schedule, which is suitable for learners with strong self-management skills to choose their learning content according to their personal time and interests. The platform also provides supplementary resources such as video lectures and online discussions, but may not be friendly enough for learners who need structured guidance.

MOOC platforms are based on structured learning with a fixed learning schedule and examination timetable, which is suitable for learners who need external motivation and guidance, but may limit the flexibility of self-directed learners. At the same time, the platform provides rich learning resources, such as video lectures and online Q&A, to enhance learners' autonomy.

The Love Course platform provides a flexible learning experience that supports learners to choose courses and learning progress according to their personal needs and schedules. It is also equipped with supporting tools such as study notes, discussion forums and online tests to help learners absorb knowledge effectively. The course content focuses on practice and includes case studies to promote learners' active application of what they have learned and to enhance learning effectiveness.

The Xuetang Online platform encourages active learning by providing tools such as online discussion forums and personalized recommendation systems. Learners can make plans and regulate the pace of learning on their own, and apply their knowledge to real-world problems through rich practical sessions to enhance learning effectiveness.

The Wisdom Tree platform utilizes a self-directed learning model that encourages students to pre-study before class and actively participate in discussions in class. It provides support tools such as study notes, online tests and discussion forums

to help students self-manage and learn effectively. Courses have clear learning objectives and assessment criteria for learners who need feedback.

Comprehensive analysis: Netease Open Class and Love Course excel in supporting self-directed learning, providing flexible study plans and supporting resources. MOOC is supportive, but its structured learning may limit self-directed users. Xue Tang Online and Wisdom Tree excel in self-directed learning tools, encouraging learners to regulate their own learning pace. All platforms support self-directed learning, but the adaptability of design and curriculum may vary from learner to learner. Learners should choose the appropriate platform according to their own needs in order to effectively utilize online resources and enhance their self-directed learning ability.

Table 34 User self-directed mechanisms on major platforms

Platform	user-guided mechanism
Netease Open Class	<p>Netease Open Class pays great attention to cultivating users' self-direction. The course content on the platform is usually independent, with no fixed learning plan or progress requirements, and users can arrange their own learning pace completely independently. This design is ideal for learners with strong self-management skills, who can flexibly choose and arrange their learning content according to their own time and interests. In addition, NetEase Open Class provides a wealth of supplementary learning resources, such as video lectures, reading materials and online discussions, which help learners receive more support and guidance in their independent learning. However, for those learners who need more structured guidance, this freedom may pose certain challenges.</p>
MOOC	<p>MOOCs offer some support in terms of user self-direction, but are still dominated by structured learning. Most courses on the platform feature a fixed study schedule and exam timetable, which is very helpful for learners who need external motivation and structured guidance. However, for users who prefer to pace their own learning, such fixed study schedules may limit flexibility. Nonetheless, the platform provides a wealth of learning resources,</p>

including video lectures, post-class exercises, forum discussions and online Q&A sessions, which help learners to solve problems on their own during the learning process and enhance their learning autonomy.

Love  
Course

Love Courses has certain advantages in fostering users' self-direction. The platform provides learners with the flexibility of arranging their own learning programs, and learners can freely choose courses and learning progress according to their own learning goals and time schedules. Meanwhile, Love Courses provides a variety of auxiliary tools, such as study notes, course discussion forums and online tests, to help learners effectively master knowledge in the process of self-directed learning. In addition, the platform's courses usually contain rich practical content and case studies, encouraging learners to actively apply what they have learned and enhancing the learning effect. For those learners with strong self-management skills, Love Courses provides a good self-directed learning environment.

Xuetang  
Online

The platform design and course content encourage active learning. The platform provides a wealth of self-directed learning tools, such as online discussion forums, learning progress tracking and personalized recommendation systems. These tools not only help learners to make study plans, but also support them to regulate their own pace of learning during the process. In addition, the course content on the platform usually includes a large number of practical sessions, such as project assignments and case studies, which encourage learners to apply what they have learned to real-world problems, thus enhancing their learning outcomes. This self-directed development is in line with the principle of autonomy in adult learning theory and can effectively stimulate learners' motivation and interest in learning.

Wisdom  
tree

Wisdom Tree has certain advantages in terms of user self-directedness. The design of the platform encourages students to learn on their own before class by watching videos and reading materials, and to participate in discussions and interactions in class. This mode of learning requires students to have strong self-management skills and a willingness to learn on their own initiative. In addition, WisdomTree provides a wealth of study aids, such as study notes, online tests, discussion forums, etc., to help students get more support in their



independent learning. Meanwhile, WisdomTree's courses usually set clear learning objectives and evaluation criteria to guide learners to effectively master the course content. WisdomTree is a good choice for users who are accustomed to self-directed learning and want to get feedback during the learning process.

---

### 3. Platform inclusiveness and feasibility

Table 35 demonstrates the analysis of the five platforms (Netease Open Class, MOOC, Love Course, School Online, and Wisdom Tree) in terms of inclusiveness and feasibility:

NetEase Open Class aims to popularize knowledge by providing free courses in multiple fields, supporting multi-language subtitles and enhancing global accessibility. Its flexible learning methods, including mobile apps and offline downloads, make it easy for learners to study anytime and anywhere, reflecting educational equity.

The China University MOOC platform offers free courses covering multiple learning levels and supports multiple languages to enhance global accessibility. Its mobile apps and offline downloads provide flexible learning options for learners in busy or remote areas, reflecting the inclusiveness of education.

Love Courses is committed to providing high-quality educational resources that are inclusive and accessible, primarily through free or low-cost courses that lower the barrier to learning. It supports multi-device access and allows courses to be downloaded, making it convenient for learners to study at any time. In addition, the platform focuses on educational equity, aiming to reduce educational disparities between regions and social classes and promote a balanced distribution of educational resources.

Xuetang Online offers a diverse range of courses to meet the needs of university students, workplace professionals and the public, and supports multi-language and subtitling to improve course accessibility. Its flexible learning mechanism allows for credit certification, facilitating learners' free choice of courses and enhancing the efficiency of resource utilization.



Wisdom Tree is an online education platform for college students and social learners across the country, offering many free and high-quality courses. It supports PC and mobile access and has offline learning functions, greatly enhancing the flexibility and accessibility of learning. In addition, Wisdom Tree promotes the sharing of educational resources through cooperation with colleges and universities around the world, and is committed to solving the problem of uneven distribution of educational resources and promoting educational equity.

Comprehensive analysis: Online education platforms demonstrate high inclusiveness and flexibility in terms of educational equity, internationalization and resource sharing. Netease Open Class and Love Course lower the learning threshold through free courses and equipment support, MOOC and Xuedang Online offer multilingualism and multiple learning modes, and Wisdom Tree promotes balanced resources through cooperation with universities. Learners should choose the right platform according to their individual needs in order to fully utilize online education resources.

Table 35 Inclusiveness and feasibility of major platforms

Platform	Inclusiveness and feasibility
Netease Open Class	<p>Netease Open Class excels in terms of inclusiveness and accessibility. The core concept of the platform is to make knowledge accessible and provide free and quality learning resources to the general public. The course content provided by Netease Open Class covers a wide range of areas, from basic knowledge to more in-depth topics, and is suitable for learners with different backgrounds and needs. In addition, the platform supports multi-language subtitles, especially when it comes to international courses, which greatly enhances the global accessibility of the courses. To further enhance accessibility, NetEase Open Course provides a mobile application and offline download function, enabling learners to study anytime, anywhere. The platform also pays special attention to the popularization and promotion of knowledge, and is committed to providing equal learning opportunities for a wide audience.</p>

## MOOC

The China University MOOC has made great efforts in terms of inclusiveness and accessibility, aiming to provide quality educational resources for learners with different backgrounds and needs. There are a large number of free courses on the platform, covering a wide range of areas from basic knowledge to advanced studies, suitable for learners at different levels. In addition, China University MOOC provides multiple language support, especially when it comes to international courses, which enhances the global accessibility of learning resources. The platform's mobile apps and offline download capabilities also further enhance the accessibility of courses, allowing learners to study anytime, anywhere. This design is particularly suitable for learners with busy lifestyles or in geographically remote areas, and fully embodies the concepts of equity and inclusiveness in education.

## Love Course

Love Courses excels in inclusivity and accessibility. The platform is committed to providing quality educational resources for learners of different backgrounds and needs. Whether they are college students, workplace professionals, or the general public, they can find courses on Love Courses that suit them. Most of the courses provided by the platform are free or low-fee, which greatly reduces the threshold of learning. In addition, Love Courses supports multiple device access, including PC and mobile, and provides course download functions so that learners can study anytime and anywhere. The platform also pays special attention to educational equity and seeks to narrow the education gap between different regions and social classes by providing quality online education resources.

Xuetang  
Online

Xuetang Online also excels in terms of inclusiveness and accessibility. The platform offers a diverse selection of courses, covering learners of different levels and backgrounds. Whether they are college students, career professionals or the public, they can all find courses that suit their needs on Xue Tang Online. In addition, the platform takes the needs of different learners into full consideration in course design, providing multiple languages and subtitle support to enhance the accessibility of courses. In addition, Study Hall Online also focuses on ensuring that learners can study at any time and any place through its mobile application and offline download function, which

further enhances the accessibility of the platform. Moreover, the credit courses launched by Xuedang Online platform break through the high walls of major institutions and realize mutual credit certification, giving learners a broader platform. Learners are not only free to choose courses, but also get the corresponding credits, the utilization rate of course resources have been improved, but also urge the institutions and teachers to improve the quality of the courses, which can be said to be a multi-purpose.

Wisdom Tree performs better in terms of inclusiveness and accessibility. The platform is open to students from universities and colleges across the country, as well as to social learners. Most of the courses offered by Wisdom Tree are free, which makes it easy for all types of learners to access quality educational resources. The platform supports PC and mobile access, making it easy for learners to study anytime, anywhere. In addition, WisdomTree's "Offline Learning" feature allows users to continue learning without internet access, further improving the accessibility of the courses. WisdomTree also focuses on educational equity, and promotes the sharing of quality educational resources through cooperation with universities in different regions to narrow the imbalance in the distribution of educational resources.

---

According to the principle of "establishing a close link between actions and educational goals", which is one of the five principles of lifelong education, it is found that all platforms (MOOC, Aiqi, Xuedang Online, Wisdom Tree) break through the limitations of traditional education authentication through flexible authentication methods such as e-certificates and credit certificates and provide diversified assessment of learning outcomes. The MOOC and Wisdom Tree use a variety of interactive functions, such as voting, following, reporting, etc., to further promote the active participation of learners and break through the traditional classroom limitations; the MOOC breaks through the one-way communication in traditional education through rich interactive functions (discussion forums, replies, polls, etc.) to enhance the communication among learners and promote a more flexible learning mode; the Wisdom Tree breaks through the traditional Wisdom Tree breaks through the traditional

discussion forum model by providing more synchronized and personalized interaction opportunities through direct communication forms such as meet-and-greet sessions, adapting to the needs of modern education. These features demonstrate that each platform utilizes a variety of tools to promote changes in the education model and break down the institutional constraints of traditional education

#### **4.4.6 Summary of this section**

With the popularization of the concept of lifelong education, online learning in China has shifted from initial development to becoming a flexible and widely accepted way of online learning. At present, China has multiple mature online learning platforms, such as NetEase Open Course MOOC、 As a non-profit course platform, Love Course, School Online and Wisdom Tree have gathered rich Internet education resources and tools to provide convenient online learning and training services for learners.

Based on a thorough analysis of the five principles of lifelong education, well-known educational platforms such as MOOC, iCourse, and Xuetang.com have established a comprehensive and continuous updating system. Especially in the fields of technology and medicine, the timely updates of Love Course and Xuetang Online have shown outstanding performance. This not only highlights their significant advantages in systematic and specialized course content, but also reflects their unremitting pursuit of educational quality. The Smart Tree platform effectively strengthens its close connection with market demand through close cooperation with enterprises. In addition, iCourse and Xuetang Online can quickly and appropriately adjust course content based on user feedback to ensure the timeliness and applicability of teaching content. The formation of these mechanisms plays an indispensable role in ensuring that course content remains cutting-edge and practical. Therefore, when planning online learning centers for Baling Opera, Jinghe Opera, and Xiang Opera, it is necessary to establish regular update plans and build an efficient user feedback mechanism to quickly adjust and optimize course content based on learners' feedback, ensuring continuous improvement of teaching content and maintaining its timeliness and

relevance. At the same time, for online learning centers of Hunan opera intangible cultural heritage, attention should be paid to systematic planning of course content, providing a curriculum system from beginner to advanced to meet the needs of learners at different levels. In terms of platform design, we can draw on the models of the five major learning platforms mentioned above, work together with local cultural institutions and opera groups to develop application-oriented course resources, and thus enhance the level of learners.

The course offerings of the above-mentioned mainstream learning platforms cover a wide range of major subject areas, reflecting the platform's adaptive design for learning objectives of different user groups. Although this study is specifically focused on a learning platform for traditional Chinese opera, the online learning center provides a rich and diverse range of course options to cater to learners with different backgrounds and needs, achieving personalized education. The above platforms have broken through the limitations of traditional educational certification through flexible authentication methods such as electronic certificates and credit authentication, providing learners with electronic certificates and credit authentication to enhance the academic recognition and attractiveness of courses, and meet learners' needs for certification. Of course, these learning platforms also perform exceptionally well in terms of interactive features, significantly enhancing communication and interaction among learners by setting up multiple discussion areas and interactive mechanisms. Therefore, when planning online learning centers for Baling Opera, Jinghe Opera, and Hunan Opera, this study should develop various interactive tools such as forums, live discussions, online Q&A, etc., widely use various training and information tools, and break the boundaries and institutional constraints of traditional education. Make full use of modern information technology to promote communication and interaction among learners, create a positive learning atmosphere, and enhance learners' participation and interactivity.

In summary, the online learning center for Hunan opera intangible cultural heritage should focus on continuous content updates, systematicity and specialization,

market demand matching, user feedback, adaptability of educational projects, educational model changes, flexible certification methods, and interactive participation. This will help build an efficient, interactive, and adaptable online learning center that meets the needs of modern education.

#### **4.5 Design of Hunan Opera Intangible Cultural Heritage Online Learning Platform System**

Designed under the concept of lifelong education, the Hunan Opera and Afro-Chinese Cultural Heritage Online Learning Center is based on five case studies, realizing the effective integration of "coherence of education stages", "centrality of the learner", "social support system", and so on. Effective integration of "coherence of education stages", "centrality of learners", "social support system", etc.

##### **4.5.1 Online Learning Center Learning Elements Section**

Under the theoretical background of lifelong education, the teaching elements of Hunan Opera Intangible Cultural Heritage Online Learning Center are composed of four elements, namely people (educators, learners, managers), communication technology, learning resources, and learning activities. As shown in Figure 2:

1. Core element - people: "People" as the central element highlights the centrality of people in the e-learning center. This includes administrators, teachers and learners, who together constitute the "people" of the center, symbolizing the vitality and diversity of the e-Learning center. Managers are responsible for the overall operation and management of the e-Learning center, including course planning, resource allocation, technical support, etc. They are the key players in ensuring the smooth operation of the center. Teachers are professionals directly involved in teaching activities, responsible for imparting knowledge and skills of opera NCS, interacting with learners through communication technologies, providing guidance and feedback. Learners are the main beneficiaries of the online learning center, who acquire knowledge and skills through their participation in the activities and are the driving force for the improvement and development of the center.

2. Learning resources: they are important materials to support learners' learning, including video, audio, text, pictures and other forms of non-legacy materials of opera, which are developed mainly to enrich learners' learning content.

3. Communication technology: an important tool for connecting administrators, pedagogues and learners, communication technology makes distance learning and interaction possible.

4. Learning activities: a series of teaching and learning behaviors in which learners are involved, such as watching teaching videos, participating in online discussions, and completing assignments. These activities help learners to better understand and master the knowledge of opera non-heritage.

Taken as a whole, this diagram clearly shows the main elements of the Hunan Opera NRL Online Learning Center and their interrelationships, emphasizing the centrality of people in the system and the important role of communication technologies and learning resources in supporting the learning process. Starting from the core of "people", administrators, pedagogues and learners use learning resources to conduct learning activities through communication technologies, thus promoting the growth of learners and providing feedback to pedagogues and administrators, thus promoting the continuous improvement and development of the online learning center.

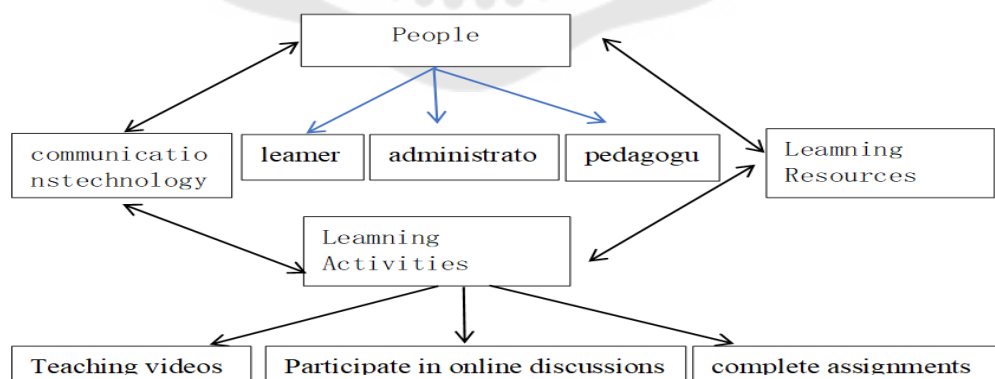


Figure 2 Composition of elements of the modified Hunan Opera Nonheritage Online Learning Center



#### 4.5.2 Modified Online Learning Center Teaching Activity Board Display

The activity process of Hunan Opera Intangible Cultural Heritage Online Learning Center is shown in Figure 3. The arrows indicate the direction of the process and the logical relationship between the steps. Starting from the course introduction, it goes through teaching preparation, learning content selection, pre class testing, organizational learning, and finally evaluation and reflection. The overall structure is divided into three phases, each containing several steps, and the flowchart reflects the complete learning process from course preparation to course evaluation. Here, based on expert opinion and in conjunction with the results of the questionnaire survey, it is specifically stated here that the duration of each lesson does not exceed 60 minutes, which is mainly to ensure that the learning activities are efficient and in line with the timeframe of the learner's attention span.

##### Phase I: Preparation

Step 1: Course introduction. This is the starting point for the entire learning process and includes basic information about the course content, objectives, and teaching methods.

Step 2: Exercise Preparation. Learners need to prepare the study materials in this step.

Step 3: Choose the learning content. Learners select learning content based on their interests and needs.

Step 4: Pre-course test. Before learning officially begins, learners need to take a test to assess their basic knowledge and skills.

##### Phase II: Learning phase

Step 1: Understand the basics of opera. As the beginning of the preparation phase, learners need to understand the basics of opera to lay the foundation for subsequent learning.

Step 2: Master the basics of vocal music. Learners need to master the basics of opera vocal music in this step.



Step 3: Learning the vocal cadences of opera. Learners learn the vocal cadences of opera in this step, which is an important part of opera performance.

**Step 4: Stance and expression learning.** Learners learn the stances and expressions of opera, which are nonverbal expressive skills that are vital to opera performance.

Step 5: Repeated practice. Learners consolidate their acquired knowledge and skills through repeated practice.

#### Phase III: Evaluation and feedback phase

Post-Course Test: Learners take a test at the end of the course to assess their learning outcomes.

Course evaluation: Evaluation of the entire course, including course content, teaching methods, and learning resources.

Discussion Summary: Learners and instructors discuss the course content and summarize the learning experience.

Reflection on Learning: learners engage in self-reflection to think about the gains and shortcomings of the learning process.

In synthesis: learners are the central participants in the whole process and their learning activities take place throughout the process. Communication technology, on the other hand, is used as a support tool, mainly for instructional preparation and delivery of learning materials. Learning materials, on the other hand, provide learners with the necessary learning materials (e.g., video, audio, text, etc.). The entire modified flow of learning activities emphasizes the participation and interaction of learners at all stages and the role of communication technologies in supporting teaching and learning.

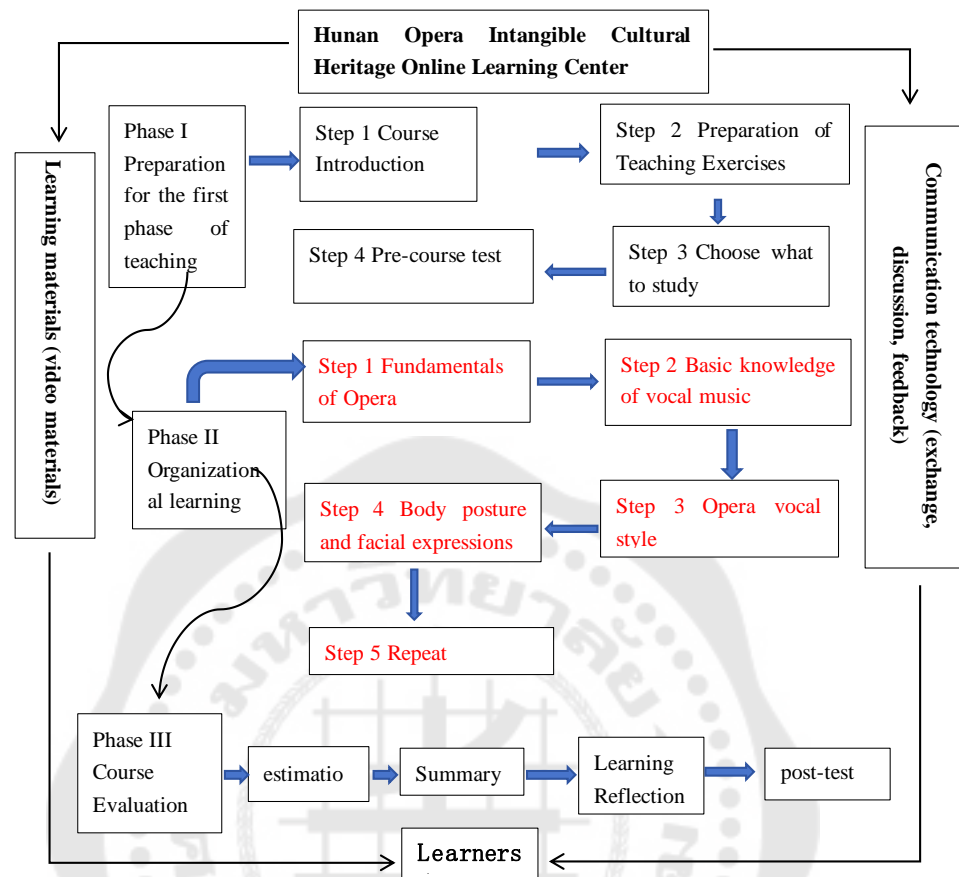


Figure 3 Modified flow of activities of some Hunan opera and non-heritage online learning centers

Overall, learners are the core participants in the entire process, and their learning activities run through the entire process. Communication technology, as a supporting tool, is mainly used for teaching preparation and the transmission of learning materials, which provide learners with necessary learning materials (such as videos, audios, texts, etc.). The entire learning activity process describes in detail the learning activity process of some online learning centers for intangible cultural heritage of Hunan opera, emphasizing the participation and interaction of learners at various stages, as well as the role of communication technology in supporting teaching and learning.

#### 4.5.3 Online Learning Center Learning Area

The process of the online learning center learning area is shown in Figure 4. The entire process emphasizes learner autonomy, allowing them to select learning content according to their own interests and needs, and ensuring that the selected content matches their personal learning objectives. Through this process, learners have the flexibility to access and learn about the non-heritage aspects of opera, while ensuring that the learning experience is personalized and effective.

Step 1: The learner first selects the material to be studied from the library of resources provided, and then the learner needs to select the segmented learning resources from these materials.

Step 2: The learner needs to determine if the selected segmented learning resource is suitable for them. If the resource is not suitable, the learner will re-select a more suitable resource for him/her; if the resource is suitable, the learner will continue to the next step.

Step 3: Once a suitable learning resource has been identified, the system will generate a link for the learner to begin playback preparation.

Step 4: The learner watches or listens to the learning content on the monitor by clicking on the link.

Step 5: This learning process ends when the learning content is played.

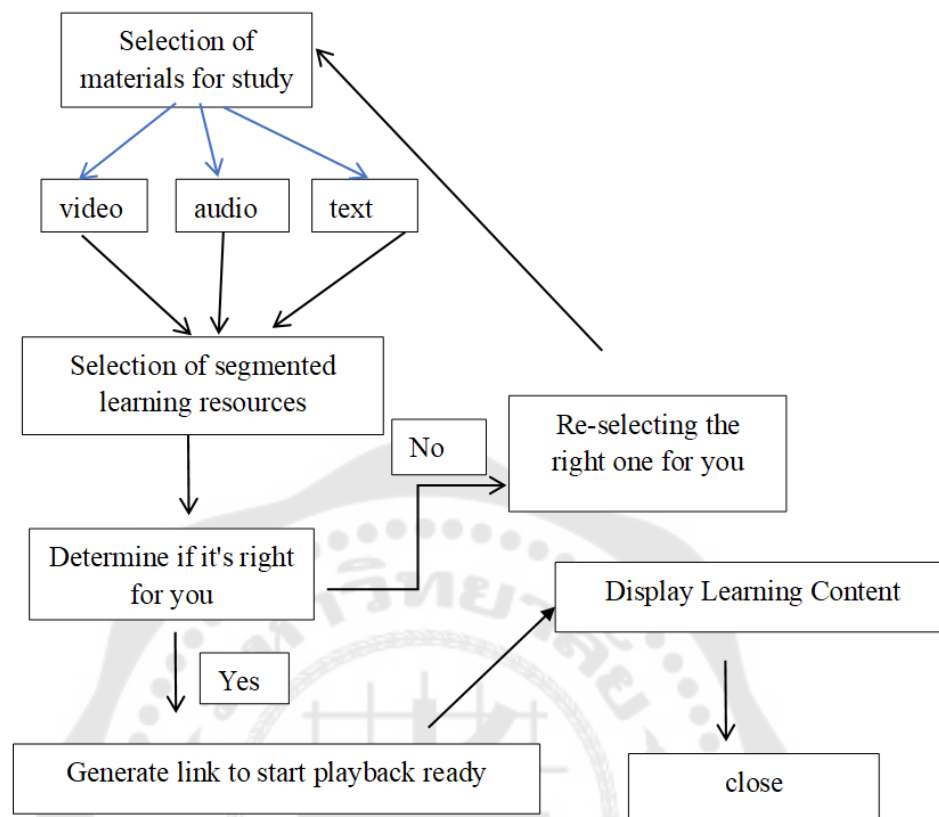


Figure 4 Learning Process of Hunan Opera Intangible Cultural Heritage Online Learning Center

#### 4.5.4 Online Learning Center Exchange Area Display

The communication area of the online learning center is shown in Figure 5. This flowchart emphasizes the importance of communication in the e-learning environment and shows how learners can interact with learners at the same pace through different real-time communication methods. Through this variety of communication methods, learners are able to share knowledge, ask questions, and participate in discussions more effectively, which enhances the learning experience and promotes deeper understanding. In addition, the flowchart also shows how the eLearning Center uses technology to facilitate learner interaction and collaboration, which is particularly important for cultural heritage that requires practice, such as opera NCS.

Step 1: The learner logs into the online learning platform and accesses a specific classroom.

Step 2: The system generates a link for the learner to start playing the scheduled learning content.

Step 3: Learners activate the discussion feature within the classroom and prepare to interact with other learners.

Step 4: Learners look for other learners with similar progress on the platform or look for teachers and experts to communicate with, a process that not only helps learners get immediate feedback and in-depth guidance, but also promotes mutual inspiration and creative exchange among them.

When learners are looking for peers on the platform, they can find the right people to communicate with by viewing other users' progress, points of interest and discussion history. Meanwhile, exchanges with teachers and experts provide learners with a valuable opportunity to gain professional insights and advice. Experts can provide answers to specific questions learners encounter in their practice, share experiences and trends in the industry, and even offer personalized guidance.

Step 5: The platform provides a variety of real-time discussion methods, including: video face-to-face real-time communication, text chat real-time communication, voice real-time communication.

Step 6: After completing the viewing and discussion of the learning content, the communication and learning phase ends.

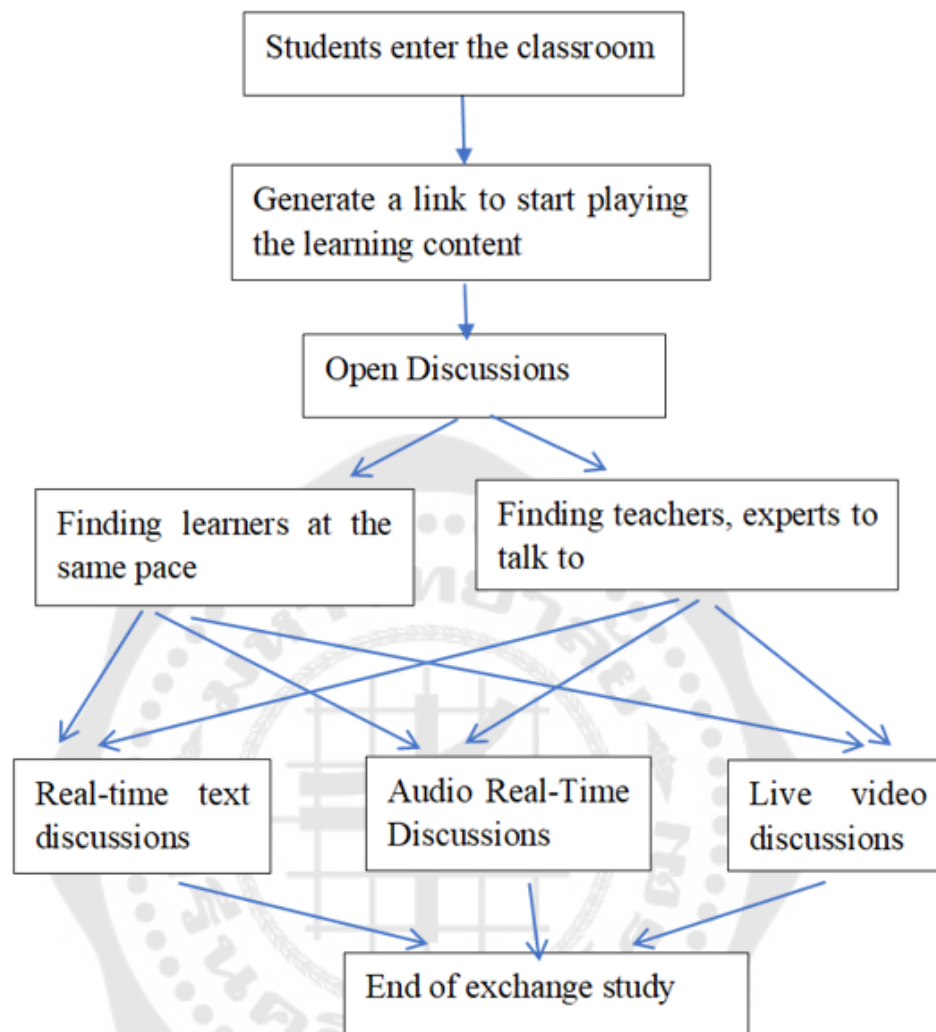


Figure 5 The formation process of communication at Hunan Opera Intangible Cultural Heritage Online Learning Center

#### 4.5.5 Display of homework submission section in online learning center

The homework submission section of the lifelong education platform for some intangible cultural heritage of Hunan opera is shown in Figure 6 below, which emphasizes the importance of assignment submission and feedback in online learning environments, and illustrates how learners can record and upload their assignments to complete their learning tasks and receive feedback from teachers or the assessment system. Through this process, learners can keep abreast of their learning outcomes and

make adjustments and improvements based on the feedback to ensure that the learning objectives are met.

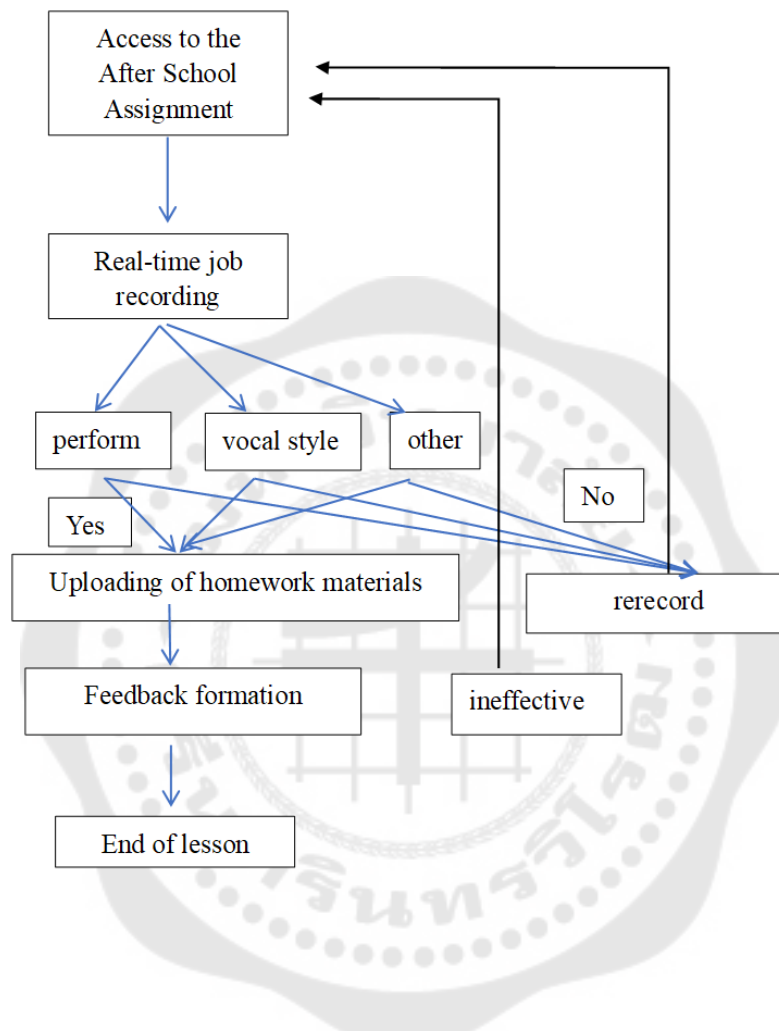


Figure 6 Hunan Opera Intangible Cultural Heritage Online Learning Center Homework Submission Chart

Step 1: Learners enter the homework submission port area and can submit their assignments.

Step 2: Students need to record their homework in real-time, which may include performing, singing, or other tasks related to intangible cultural heritage of traditional Chinese opera.



Step 3: Learners can judge the recording effect themselves. If students are satisfied with the recording effect, they can proceed to the next step; If students are not satisfied with the recording effect, they can choose to re record. This function mainly provides students with opportunities to improve and perfect their homework.

Step 4: Students are satisfied with the recording of their homework and can upload the homework materials. This design mainly involves the need for someone to teach and evaluate the recorded video or audio files.

Step 5: After uploading the homework, the teacher or system will evaluate the student's assignment and provide feedback. This step is crucial in the learning process as it helps students understand their performance and guides their future learning.

Step 6: Evaluation of homework effectiveness. If the feedback on the assignment shows poor results, learners may need to make improvements based on the feedback and resubmit the assignment; If the feedback on the homework shows good results, it indicates that the students have mastered the learning content and their homework meets the expected standards.

#### **4.5.6 Summary of this section**

The operation process of Hunan Opera Intangible Cultural Heritage Online Learning Center covers three stages: preparation, learning, and evaluation. In the preparation stage, learners first understand basic information through course introductions, then choose learning content based on their interests and needs, and conduct pre class tests to evaluate basic knowledge and skills. The learning stage starts with the basic knowledge of traditional Chinese opera, gradually transitioning to the study of vocal music, vocal techniques, body movements, and facial expressions, and consolidating what has been learned through repeated practice. The evaluation and feedback stage evaluates learning outcomes and course quality through post class tests, course evaluations, discussion summaries, and learning reflections.

The online learning platform designed in this study can provide learners with personalized learning paths and real-time feedback. Learners first select and

subdivide learning resources from the resource library, judge the applicability of the resources, and start learning through the system generated links after determining that the resources are suitable. Learners can also activate the discussion function on the platform to communicate with other learners or teachers for immediate feedback and in-depth guidance. The platform provides multiple real-time discussion methods, including video, text, and voice communication, to promote mutual inspiration and creative exchange among learners. After completing the viewing and discussion of the learning content, the learner enters the homework submission stage, records and submits the homework in real-time, and the teacher or system evaluates and provides feedback on the homework. According to feedback, learners may need to improve their assignments and resubmit them until they meet the expected standards.

Overall, the online learning center emphasizes the central position of learners and the important role of communication technology and learning resources in supporting the learning process. It aims to promote the growth of learners through a systematic learning process and real-time feedback, and drive the continuous improvement and development of the online learning center.

#### **4.6 Expert Evaluation of Hunan Opera Non-legacy Online Learning Platform**

On the basis of five lifelong education learning platforms as cases, the design of Hunan Opera Non-legacy Online Learning Center follows the concept of lifelong education and has been evaluated by experts.

#### 4.6.1 Expert assessment of learning elements in online learning centers

Table 36 Summary table of experts' assessment of learning elements of online learning centers

Evaluation project	score ( 1-5 )					
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Average
People (educators, learners)	4	4	5	4	5	4.4
Communication technology	5	5	4	4	4	4.4
learning resource	5	4	5	4	4	4.4
learning activities	5	5	5	4	5	4.8
Average						4.5

The Learning Elements section of the Designing Hunan Opera and Afro-Cultural Heritage Online Learning Center under the Concept of Lifelong Education (Draft) was evaluated by five experts via videoconferencing through an online focus group meeting. Table 36 above provides the assessment scores of the five experts. In the learning elements, the range of ratings for people (instructors and learners) was 4-5, with an average score of 4.4, which indicates that the experts considered the importance of people (instructors and learners) to be high, and generally agreed on the central role of instructors and learners in the learning process. In terms of communication technology, the rating range is 4-5 with an average score of 4.4, which shows that experts support and recognize the communication technology of online learning centers as critical important to the learning process. In the area of learning resources rated 4-5 with an average score of 4.4, experts further emphasized the importance of high quality learning resources. In terms of learning activities, a rating of

4-5 with a mean score of 4.8 indicates that experts consider learning activities as the most central element, which has a direct impact on learning effectiveness. The total mean score of 4.5 for the above mentioned learning elements indicates that the experts approve of the overall operation and effectiveness of the online learning center.

From the evaluation results, the experts generally have a positive assessment of all elements of the Online Learning Center, especially in the area of learning activities, which received the highest rating. This means that online learning centers are doing a better job in organizing learning activities that can effectively facilitate the learning process of learners. Meanwhile, people (instructors and learners), communication technology and learning resources were also considered as key factors. The results of this assessment can provide guidance for the design and future management of online learning centers, assisting in identifying areas of strength in current practices and potential room for improvement.

#### 4.6.2 Expert assessment of teaching and learning activities in online learning centers

Table 37 Summary table of experts' assessment of teaching and learning activities in online learning centers

Evaluation project	score (1-5)					Average
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	
Learning Process Framework Diagram	4	5	5	5	5	4.8
Preparation stage	4	5	4	5	5	4.6
Learning stage	4	5	5	4	4	4.4
Evaluation and Feedback Stage	4	4	5	5	5	4.6
Average						4.6

Designing the Online Learning Center for Hunan Opera and Afro-Cultural Heritage under the Concept of Lifelong Education (Draft) Teaching and Learning Activity Segment Evaluated by five experts through online focus group meetings via video conferencing. Table 37 provides the scoring table of the five experts' assessment of the various stages of the teaching activities of the online learning center. In terms of the learning process framework diagram, the scores were 4-5, with an average score of 4.8, which indicated that the experts generally agreed that the learning process framework diagram of the online learning center was properly designed and could effectively guide learners to complete their learning tasks. In terms of the preparation phase, the rating was 4-5 with an average of 4.6, which means that experts believe that the preparation phase is important for learners to enter the formal learning state, but there is still room for improvement. With regard to the learning phase, the rating was 4-5 with an average of 4.4, which indicates that the learning phase needs to be further optimized. In terms of the Evaluation and Feedback phase, the ratings were 4-5 with a mean score of 4.6, which shows the importance that experts place on this phase, and that effective evaluation and feedback are essential for learner progress and course improvement. The total mean score of teaching activity design is 4.6, and the five experts gave high scores to the stages of teaching activities in the online learning center, indicating that the experts have a positive attitude towards the teaching activities in the online learning center.

From the assessment results, experts generally rated the stages of teaching and learning activities in the online learning center positively, especially the learning process framework diagram and the evaluation and feedback stage received high ratings, indicating that the experts considered these links to be crucial to the successful operation of the online learning center. However, the average rating for the learning phase was relatively low, which may imply the need for improvement in this phase.

### 4.6.3 Expert assessment of learning areas in online learning centers

Table 38 Summary table of experts' assessment of teaching and learning activities in online learning centers

Evaluation project	score (1-5)					
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Average
Select study materials	4	4	4	4	5	4.2
Determine whether it is suitable for oneself	4	5	5	4	4	4.4
Generate link and start playing preparation	4	5	5	4	4	4.4
Display learning content	5	4	5	5	5	4.8
Over	4	4	5	5	5	4.6
Average						4.48

The Designing Hunan Opera and Afrobeat Online Learning Center (Draft) Learning Zone section under the concept of Lifelong Education was evaluated by five experts via video conference via online focus group meeting. Table 38 provides the scoring sheet of the five experts' assessment of the construction of the online learning center's learning zone at each stage. In terms of selecting learning materials, the ratings ranged from 4 to 5, with a mean score of 4.2, which indicates that although most of the experts felt that selecting learning materials was an important part of the process, there is still room for improvement. In terms of judging suitability, the ratings were 4-5 with a

mean score of 4.4, indicating that experts generally felt that learners were able to judge the suitability of the selected materials better. In terms of generating a link to begin playback preparation, the rating was 4-5 with a mean score of 4.4, indicating that experts recognized this link. In terms of displaying the learning content, the ratings were 4-5 with a mean score of 4.8, indicating that experts generally found the presentation of the learning content to be clear and effective, and that learners were able to access and understand the learning content quickly. In terms of closure, mean score of 4.6 shows that experts recognized the closure phase of the learning process, implying that the closure phase of the learning process was handled appropriately. The average score of 4.48 for learning area shows that five experts recognized the specific design aspects of the learning area of the online learning center.

From the evaluation results, experts generally gave positive comments on all aspects of the online learning center's teaching and learning activities. In particular, the session on displaying learning content received the highest ratings, indicating that the online learning center has done a better job in providing clear and effective learning content. However, the average rating for the session on selecting learning materials was relatively low, which may imply that improvement is needed in this session.

#### 4.6.4 Expert assessment of the online learning center communication area

Table 39 Summary Table of Experts' Assessment of Teaching and Learning Activities in Online Learning Centers

Evaluation project	score ( 1-5 )					
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Average
Students enter the classroom	5	5	5	4	5	4.8
Generate link to start playing learning content	4	5	5	4	4	4.4
Enable discussion function	4	5	4	5	4	4.4
Searching for learners at the same pace	4	5	5	5	5	4.8
Communication ends	4	4	5	5	5	4.6
Average						4.6

The Designing Hunan Opera NCS Online Learning Center under the Concept of Lifelong Education (Draft) Learning Zone section was evaluated by five experts via videoconferencing through online focus group meetings. Table 39 provides the scores of the five experts' assessment of the construction of the online learning center's communication zone at each stage. Student access to the classroom: the ratings ranged from 4-5 with an average score of 4.8, indicating that the experts generally agreed that students were able to access the classroom smoothly and that the process was a good user experience. In terms of generating a link to start playing the learning content, the ratings ranged from 4-5, with an average score of 4.4, which



implies that there may be some minor technical issues or user experience shortcomings in this session. In terms of turning on the discussion feature, the ratings ranged from 4-5, with an average score of 4.4, showing that the experts were positive about the usability and effectiveness of the discussion feature, but again, there is some room for improvement. In terms of finding learners at the same pace, the range of ratings was 4-5, with an average score of 4.8. This shows that the experts consider this feature very important for promoting interaction and collaboration among learners. In terms of communication closure, the rating range was 4-5 with a mean score of 4.6, showing that experts recognized the communication closure process. The average score of 4.6 for the Communication Zone section shows that experts had an overall positive attitude towards the interactive aspects of the online learning center, especially the high ratings received in the sections of students entering the classroom and finding learners at the same pace. From the assessment results, experts believe that the online learning center has done a good job in facilitating learners' smooth entry into the classroom and promoting interaction among learners.

#### 4.6.5 Expert assessment of the post-course assignment submission area of the online learning center

Table 40 Summary table of experts' assessment of teaching and learning activities in online learning centers

Evaluation project	score ( 1-5 )					
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Average
Enter the homework submission port area after class	4	5	5	4	4	4.4
Real time homework recording	4	5	5	4	4	4.4

Upload homework materials	5	5	5	5	5	5
Form feedback	4	5	5	4	4	4.4
Good effect	4	4	5	5	4	4.4
Average						4.52

Designing the Hunan Opera and Afrobeat Online Learning Center under the Concept of Lifelong Education (Draft) The after-class assignment submission section of the learning zone was evaluated by five experts via video conferencing through online focus group meetings. Table 40 provides a scoring sheet for the five experts' assessment of the construction of the online learning center's communication zone at each stage. In terms of accessing the after-school assignment submission port area, the ratings ranged from 4 to 5, with a mean score of 4.4, and the experts generally agreed that access to the after-school assignment submission port area could be easily located and executed. In the area of real-time assignment recording, the mean score was 4.4, indicating that experts felt this area was technically feasible and practical for learners. In terms of uploading assignment information, the average score was 5. The assignment information uploading session received a perfect score, which indicates that the experts were very satisfied with this session. In terms of forming feedback, the average score was 4.4, showing that the experts found the feedback session to be effective, but there is still room for improvement. In terms of learning effectiveness, the average score is 4.4, showing that experts think the assignment submission and feedback sessions have a positive impact on learning effectiveness. The five experts gave high ratings to the assignment submission and feedback sessions of the online learning center's teaching activities, indicating that the experts had a positive attitude towards the overall performance of these sessions.

#### 4.6.6 Additional expert advice

In addition to scoring the Hunan Opera NRL Online Learning Center designed for this study, the expert group focus meeting also gave additional suggestions on the draft web port of the learning platform. The web port presentation diagram is shown in detail in Appendix 4, and the experts' additional suggestions are shown in the table below:

Table 41 Summary of additional expert recommendations

Evaluation project	suggestion
Phisit Nadprasert	1.It will be more reasonable to replace the foreigners in the pictures displayed on the online learning center website with Chinese people because this platform is used by Chinese people. 2.The interactive methods (platform comments, fixed discussion time) should be explained on the cover of the platform webpage.
Pattaranun Waitayasin	1.Add the name and contact information of the teaching professor to the webpage.2.If the course content on the web is downloaded from other websites, The teaching teacher needs to explain,. If it is filmed by oneself, the teacher needs to explained.
Wei Dai	1. Add the name and contact information of the teaching professor on the webpage.
Yi Chen	1.If the course content on the web is downloaded from other websites, it needs to be cited. If it is filmed by oneself, it needs to be explained.
Junrong Luo	1. Add illustrations of traditional Chinese opera costumes on the web page.

The expert group conducted a detailed assessment of the draft platform, during which the experts gave high recognition to the components of the learning platform. The experts also put forward their own insights on the draft platform, such as the first expert's suggestion of replacing foreigners with Chinese in the pictures displayed on the webpage of the online learning center, a suggestion based on the consideration of cultural relevance and users' sense of identity, with the aim of making users of the platform feel more intimate and relevant, thus improving users' participation and satisfaction; stating the interactive methods in the cover part of the webpage of the platform such as platform messages and fixed discussion times, a suggestion aimed at increasing the transparency and user-friendliness of the platform, so that users would have a clear understanding of how to interact with it when they entered the platform. The second expert proposed to include the names and contact details of the lecturing professors on the webpage. This suggestion helped to build up the authority and trust of the platform, while facilitating users to contact the relevant professors directly when they had questions or needed help; while the course content on the webpage side needed to indicate the citation if it was downloaded from other websites, and the description if it was filmed by oneself, this suggestion emphasized the respect of copyright and originality, which could help to avoid copyright disputes and enhance the professionalism of the platform. The Chinese experts, on the other hand, pointed out that it would be useful to include illustrations of opera costumes on the web side, and illustrations of opera makeup preparations. These two suggestions aim at enriching the teaching content through visual elements, enabling learners to have a more intuitive understanding of the characteristics of opera costumes, and enhancing learners' knowledge and understanding of opera makeup and learning experience. Another platform design expert, on the other hand, thought that the draft design of the online learning platform was relatively reasonable, and when it was subsequently promoted for the market, it was suggested that more experts' opera content, or other more kinds of operas, should be cited. This suggestion emphasizes the richness and diversity of the

content, which will help attract a wider user group and enhance the professionalism and attractiveness of the platform.

Taken together, the experts' recommendations provide a comprehensive improvement framework for the web presentation side of this study to enhance the attractiveness and competitiveness of the online learning center platform. At the same time, leveraging the unique charm and rich connotation of Chinese culture can not only significantly enhance the attractiveness and sense of belonging of the platform; it can also make users feel the charm of the culture and also enhance their loyalty to the platform. In addition, open and transparent course information and copyright statements will establish the platform's authoritative image and the cornerstone of trust, which not only helps protect intellectual property rights, but also enables users to have higher confidence in the platform's content and quality. The introduction of beautiful illustrations of opera costumes and makeup will enrich the learning experience and make it more vivid and interesting. The addition of such visual elements will enable users to more intuitively feel the beauty of the art of opera, and increase the interest and effectiveness of learning. The implementation of these strategies will effectively enhance the user experience, professional standard and market competitiveness of the online learning center platform, and the platform will be able to better meet the needs of users and provide more diversified and high-quality learning resources, thus occupying a favorable position in the highly competitive online education market.

#### **4.6.7 Summary of this section**

Based on the evaluation results of this platform by experts from both Thailand and China, the Hunan Opera NRL Online Learning Center designed in this study excels in several dimensions, especially in the organization of learning activities, the learning process framework diagram, the evaluation and feedback mechanism, the presentation of learning content, and the submission of assignments and feedback sessions. These elements were considered as key factors for the success of online learning centers. Experts further emphasized the importance of facilitating learner interaction and smooth integration into the classroom, as well as the important role of

Chinese cultural elements in enhancing the attractiveness of the platform and boosting user loyalty. The platform's open and transparent course information and copyright statement help build the platform's authority and trust. In addition, the introduction of beautiful illustrations of opera costumes and makeup can enrich the learning experience and enhance learning interest and effectiveness.



## CHAPTER 5

### RESULTS AND DISCUSSION

This study determined through a questionnaire survey that Hunan opera is a characteristic intangible cultural heritage opera mainly represented by three types of opera: Baling opera, Jinghe opera, and Xiang opera. After determining the types of intangible cultural heritage opera, a quantitative study was conducted on Hunan University of Technology, Sichuan Conservatory of Music, and the social population (cultural center) in Chengdu based on the research objectives; And semi-structured interviews were conducted with relevant opera experts and university teachers. During this process, the principles of lifelong education were combined to compare five online learning centers in China and clarify the content of the Hunan Opera Intangible Cultural Heritage Online Learning Center. Based on questionnaire surveys, semi-structured interviews, and platform comparisons, a draft online learning platform for Hunan opera intangible cultural heritage was finally designed. After the draft was completed, two Thai experts and three Chinese experts were invited to evaluate and score the platform. The final draft passed the expert evaluation and formed a relatively complete online course center, hoping to enable people to achieve lifelong learning goals.

#### 5.1 Research Results

1. Regarding the content of some online learning centers for intangible cultural heritage of Hunan opera, summarize based on questionnaires, interviews, and comparisons with 5 major platforms:

1) Summary of questionnaire survey: According to the questionnaire survey of three groups of people: college students, graduated students, and the general public, people hope that the Hunan Intangible Cultural Heritage Opera Online Learning Center can have a highly interactive, personalized, and flexible learning environment. The interface design should be intuitive and easy to use, and the communication area can provide multiple communication methods to promote learning efficiency and interactivity; The homework submission area should provide clear homework

requirements and guidance, as well as a simple and efficient submission process, which can be conveniently and efficiently learned through mobile devices. At the same time, the center should provide diverse learning materials such as video lectures, e-books, and articles, and ensure that these materials are continuously updated to encourage respondents to maintain their expectations of the learning content. In addition, the respondents hope that online learning centers should regularly hold a variety of teaching activities to maintain learning motivation and participation, provide personalized learning plans, and have diverse functions such as learning achievement certification.

2) Interview summary: According to interviews with inheritors of intangible cultural heritage and university teachers, online education and inheritance of Hunan opera intangible cultural heritage is gradually becoming a key way to protect and promote this traditional art. This mode not only uses digital platform and Internet technology to broaden the dissemination scope of Baling Opera, Hunan Opera, Jinghe Opera and other local operas in Hunan, especially their attraction to the younger generation, but also provides a new way for the preservation, inheritance and development of opera art. The establishment of an online learning center is aimed at different groups, including opera enthusiasts, professional actors, students, researchers, and many other lifelong education learners. In terms of platform design, it should provide rich learning content, including classic singing segments, opera makeup, clothing, and historical culture. Special emphasis should be placed on the "inner eight skills" and "outer eight skills" of Baling opera, the use of eye contact and singing style in Hunan opera, the gongs and drums of Jinghe opera, and instrument skills; Enrich the learning experience through high-definition video presentations and explanations, or modular opera teaching videos, lectures, and workshops. In summary, experts emphasize the establishment of a comprehensive and professional online teaching platform to provide basic, professional, and distinctive courses, and to help students master performance skills and music culture knowledge through the combination of theory and practice, video tutorials, and thematic discussions.



3) Comparison and summary of the top 5 online learning platforms in China based on the principle of lifelong education. The content planning of Hunan Opera Intangible Cultural Heritage Online Learning Center draws on mature online learning platforms in China, such as NetEase Open Course MOOC、 Love courses and collaborate with local cultural institutions and opera groups to jointly develop specialized course resources. The online learning center has initially established a curriculum system from beginner to advanced, to meet the needs of learners at different levels and ensure the timeliness and applicability of course content. Content adjustments are made through regular updates and efficient user feedback mechanisms. In addition, the online learning center will provide diverse course options, achieve personalized education, and enhance the academic recognition and attractiveness of the courses. At the same time, develop various interactive tools such as forums, live discussions, online Q&A, etc. to promote communication and interaction among learners, create a positive learning atmosphere, and enhance learners' participation and interactivity. Through this study, the Hunan Opera Intangible Cultural Heritage Online Learning Center will provide effective reference for the development of future online learning centers.

2. Design an online learning center for non heritage opera genres to enable people to achieve lifelong learning goals. Based on questionnaires, interviews, comparisons of 5 major platforms, and expert evaluations of the Hunan Opera Intangible Cultural Heritage Online Learning Center (draft), the following is a summary:

1) Summary of the draft of Hunan Opera Intangible Cultural Heritage Online Learning Center: The design draft of Hunan Opera Intangible Cultural Heritage Online Learning Center emphasizes the central position of learners under the principle of lifelong education, and promotes their growth through a systematic operation process, including preparation, learning, and evaluation stages. In the preparation stage, learners learn basic information through course introductions and choose learning content based on their interests and needs, while conducting pre class tests to evaluate basic knowledge and skills. The learning stage starts with the basic knowledge of traditional Chinese opera, gradually transitioning to the study of vocal music, vocal techniques,

body movements, and facial expressions, and consolidating what has been learned through repeated practice. The evaluation and feedback stage evaluates learning outcomes and course quality through post class tests, course evaluations, discussion summaries, and learning reflections. This platform provides personalized learning plans and real-time feedback, supporting learners to select and segment learning resources from a resource library, and obtain immediate feedback and in-depth guidance through communication with other learners or teachers. The platform also provides various real-time discussion methods, including video, text, and voice communication, to promote mutual inspiration and communication among learners. After completing the viewing and discussion of the learning content, the learner enters the homework submission stage, records and submits the homework in real-time, and the teacher or system evaluates and provides feedback on the homework. According to feedback, learners may need to improve their assignments and resubmit them until they meet the expected standards. Overall, the online learning center aims to promote continuous improvement and development through a systematic learning process and real-time feedback, while emphasizing the importance of communication technology and learning resources in this learning process.

2) Expert evaluation summary of Hunan Opera Intangible Cultural Heritage Online Learning Center: According to the evaluation results of experts from Thailand and China, Hunan Opera Intangible Cultural Heritage Online Learning Center has performed well in multiple key dimensions, especially in the organization of learning activities, learning process framework diagram, evaluation and feedback mechanism, presentation of learning content, and homework submission and feedback. These elements are the core of the success of online learning centers. Experts emphasized the importance of promoting learner interaction and integration into the classroom, as well as the crucial role of Chinese cultural elements in enhancing platform attractiveness and increasing user loyalty. The open and transparent course information and copyright statement of the platform help to build authority and trust, while the exquisite illustrations of opera costumes and makeup enrich the learning experience, enhance learning

interest and effectiveness. Based on the suggestions of these experts, the webpage display end of this platform will be comprehensively improved to enhance its attractiveness and competitiveness. Through the unique charm and rich connotation of Chinese culture, the platform can not only enhance users' sense of belonging and loyalty, but also allow users to feel the charm of culture. At the same time, open and transparent information and copyright statements will establish the authoritative image and trust foundation of the platform.

### 3 Brief Overview of Research Results

1) This study designed an online learning center for Hunan opera (Baling opera, Jinghe opera, Xiang opera), which is aimed at lifelong education groups. In terms of content design, emphasis is placed on the correctness of teaching content, chapter division, and teaching efficiency. The content covers various aspects such as history, language, clothing, makeup, accompaniment instruments, and classic singing sections, aiming to create a comprehensive learning platform for learners.

2) The online learning center for Hunan Opera (Baling Opera, Jinghe Opera, Xiang Opera) includes four elements: people (educators, learners, managers), communication technology, learning resources, and learning activities. Online learning platforms are centered around learners, with teachers playing the roles of knowledge transmitters and learning guides, while managers are committed to maintaining the learning environment and technical support. Communication technology plays the role of a teaching medium here, not only promoting the flow of information and the rational allocation of resources, but also inspiring learners to explore and interact spontaneously. The design philosophy of the platform focuses on learners' autonomous choices and lifelong learning, providing content that aligns with personal learning goals, and emphasizing online interaction to enhance the learning experience. In addition, the platform also pays special attention to the submission and feedback of assignments to ensure the effective achievement of learning objectives.

## 5.2 Research Discussion

Based on the analysis of questionnaire surveys, interview results, comparative analysis of platform design under the principle of lifelong education, and expert evaluation, a Hunan opera intangible cultural heritage learning platform that complies with the principle of lifelong education was ultimately presented.

### 1. Discussion on the Content of Hunan Opera (Baling Opera, Jinghe Opera, Xiang Opera) Online Learning Center

This work mainly studies how to design and open an online learning center for Hunan opera (Baling opera, Jinghe opera, Xiang opera), covering multiple aspects such as teaching objects, modes, and system structure. The content of the learning center is aimed at the lifelong education group, emphasizing the correctness of the teaching content first. In the context of the principle of lifelong education, ensuring the accuracy of learning materials is crucial for maintaining the authenticity and integrity of cultural heritage (Zhao, 2024). Baling Opera, Jinghe Opera, and Xiang Opera are unique types of traditional Chinese opera in Hunan Province, and their historical origins, language characteristics, costume styles, makeup techniques, and accompanying instruments must strictly follow traditional norms. Therefore, in the content design of this learning center, special attention is paid to hiring experts in the field of opera for review and guidance to ensure the authority and accuracy of the teaching content. This is based on the research of Li Wei (2020), Yin&Sang (2024), and others. Through these measures, not only has the professionalism of the learning content been ensured, but also the inheritance and development of Hunan opera culture have been promoted.

In addition, the content of online learning platforms coincides with the insights of Wang Lin (2023). In the process of learning traditional Chinese opera, there are no students who cannot learn, only mentors who have not been properly guided. This concept emphasizes that teachers must continuously improve their teaching ability in traditional Chinese opera skills, conduct in-depth research on teaching strategies, explore innovative teaching models, and improve the teaching system, committed to cultivating generation after generation of opera inheritors. (Zhou Gucheng (2021))

Although the traditional education method, which mainly relies on mentorship, has effectively cultivated generation after generation of inheritors and even famous masters of opera culture, it has shortcomings such as not being able to be popularized and fully covered nationwide. The compilation of textbooks not only requires scientific thinking, but also needs to meet the needs of teaching. This not only relates to good teaching effectiveness and talent cultivation quality, but also affects teaching quality. Studying the content of the online learning center for Hunan opera (Baling opera, Jinghe opera, Xiang opera) is not only to guide opera reform and organize drama creation, but also to organize and participate in theatrical activities, ensuring the authority and inheritance of opera education content. Our research is of great significance for the inheritance and development of Hunan opera, and lays the foundation for the design of subsequent learning platforms.

## 2. Discussion on the Design of an Online Learning Center for Intangible Cultural Heritage of Hunan Opera (Baling Opera, Jinghe Opera, Xiang Opera)

According to the survey conducted in this study, the majority of respondents consider themselves lifelong learners, indicating a widespread demand for online learning platforms. This is consistent with Tolochko et al.'s (2021) study, which emphasizes the importance of lifelong learning. Therefore, it is crucial to integrate the concept of lifelong learning into courses and vocational training. Faced with the challenges of a decrease in inheritors and a lack of interest among young learners, inheritors and teachers of intangible cultural heritage in traditional Chinese opera emphasize the urgency of establishing online learning centers (Ma et al., 2019). Although the curriculum for intangible cultural heritage of traditional Chinese opera is complex, interactive courses and multimedia content can stimulate learners' interest and promote cultural inheritance. Due to limited public understanding of Hunan intangible cultural heritage opera, it is necessary to first establish an online learning center, and then improve awareness through a combination of online and offline methods, providing interactive videos and live courses (Glance et al., 2013), organizing opera performances

and workshops, allowing enthusiasts to learn and experience opera, and deepen their understanding and love for Hunan opera culture.

This study focuses on the design of an online learning platform for intangible cultural heritage of traditional Chinese opera in Hunan Province. This platform integrates four core elements: people (including educators, learners, and managers), communication technology, learning resources, and learning activities. Huang (2024) proposed in his research that in the context of the intelligent age, the shift in learning concepts emphasizes the central position of learners in smart and interconnected learning environments. This environment is composed of the Internet of Things, smart devices, etc. Learners acquire knowledge and skills through collaborative interaction with peers, teachers, and network agents. In this process, learners focus on building a humanized learning environment, while the participation of managers further emphasizes the learner centered educational philosophy and promotes the formation of personalized learning paths. Managers can provide customized learning resources and guidance based on learners' needs and progress, thereby improving learning efficiency and effectiveness. The application of communication technology in the field of teaching greatly enriches the diversity of knowledge presentation and promotes the digital storage of knowledge. Currently, the digital transformation of education is bringing together numerous technological innovations such as open educational resources (OER), social networks, the Internet of Things, artificial intelligence, virtual reality and augmented reality, big data, programming, etc., to jointly drive this transformation (UNESCO, 2018; Tian et al., 2023). When exploring diverse educational models and broad educational concepts, we find that the two permeate each other, cross boundaries, and constantly expand (Liu et al., 2023). Under the comprehensive development mode of distance education, "Internet plus education" is particularly important. How to achieve refined, standardized, and collaborative teaching management, efficient allocation of teaching resources, adjustment of teaching services, monitoring of teaching processes, and precise teaching evaluation in the cross integration of different educational models and disciplines, as well as the interaction



between online and offline teaching processes, are all challenges that must be faced to maximize educational benefits. Meeting the diverse learning needs of different groups of people is precisely the purpose of the comprehensive development of distance education in the era of intelligent education. Learning activities, as one of the core elements, are the most important part of the entire development process. It emphasizes the function of discussion, and fundamentally, the key to lifelong learning lies in continuously learning scientific concepts. Online mobile learning platforms can bring more help and inspiration to the construction of lifelong learning systems (Liang, 2024).

In this study, we delved into how the design and implementation of online learning platforms are expected to promote the protection and inheritance of traditional Chinese opera heritage in Hunan Province. As Ni Hong (2022) proposed, innovation in communication methods is not only an inherent demand for the inheritance and development of traditional Chinese opera art, but also a practical necessity in the era of new media. By constructing a learner centered educational environment, it is possible to effectively enhance learners' participation and satisfaction, while promoting the dissemination of knowledge and the inheritance of culture. The integrated application of communication technology not only enriches teaching methods, but also provides possibilities for personalized learning. In addition, the integration of the concept of lifelong learning provides learners with motivation for continuous learning and self-improvement.

### **5.3 Suggestions for the Future**

Suggestions and next steps for the results of this study:

#### **5.3.1. Suggestions for the use of research results**

1) Suggestions on practicality. In order to enable learners to better adapt to online learning, teachers must improve or adjust their learning modes to fit the subject content and background. Teachers need to design learner centered teaching activities based on the platform, especially adapting to the learning pace, and conveying clear learning goals and gains to learners according to the principle of lifelong education. This

not only helps learners learn about Hunan opera intangible cultural heritage, but also facilitates teaching improvement and reflection.

2) Suggestions for mastering basic skills. The Hunan Opera Intangible Cultural Heritage Learning Platform built according to the principle of lifelong education is developed and designed based on computer systems and Internet information technology. Learners and teachers must have certain basic skills to use. If students do not have basic skills or knowledge to use the Internet, they need someone to teach, which will delay the progress of learning or reduce the enthusiasm of learners.

3) Teachers must have learning tools. The Hunan Opera Intangible Cultural Heritage Learning Platform built according to the principle of lifelong education needs to have learning tools, such as computers or tablet computers, or some multimedia devices that can display. If Internet devices cannot be connected, the efficient learning system of this platform cannot be operated. Only through the support of these devices can learners learn successfully.

#### **5.3.2. Research limitations and future research recommendations**

1) The learning platform designed in this study belongs to academic research and has certain limitations in practical applications. In the future, it is recommended to build and operate a formal learning platform based on this platform, and continuously revise and improve the platform on the basis of obtaining user learning experience; Or consider adjusting the teaching mode of Hunan Opera online learning platform to make it more in line with the concept and principles of lifelong education.

2) This study has certain limitations in the selection of Hunan opera. It is recommended to conduct more social research in the future and design platforms based on user preferences for traditional Chinese opera. This will not only benefit the learning community, but also provide teaching points and elements related to Hunan opera learning from learners' practical experiences.

3) There are certain limitations in terms of manpower and material resources during the sampling process of this study, which has resulted in the research data sample being not comprehensive enough. Suggest conducting surveys and sampling



among more schools and social groups in Hunan region in the future; In terms of interviewing experts, it is recommended to seek more experts to provide more comprehensive suggestions and opinions on the design of the Chinese opera intangible cultural heritage learning platform.

4) The effectiveness of platform design (draft). Due to the limitations and constraints of one's own resources, there is no ability to obtain more evaluation and review from platform design experts. In actual operation, it is recommended to consult more platform design experts for more guidance.

5) Learning content (resources) and time. The content of the online learning center in this study is not entirely based on the learning videos I shot on site. It is recommended that in the future, when resources and conditions are sufficient, all learning content (resources) should be filmed on-site by the researchers themselves and uploaded. This can ensure the timeliness of the content and enhance the immersion and interactivity of the learning experience.

## REFERENCES

- Burns, L. (2011). Building the Agile Database: How to Build a Successful Application Using Agile Without Sacrificing Data Management. Technics Publications.
- Bell, D. C. (2015). Learning Center Pedagogy and UDL: An Environment of Change. International Journal for Innovation Education and Research, 3(1), 26-32.
- Burns, R. (2020). Adult Learner at Work: The challenges of lifelong education in the new millenium. Routledge.
- Chen Xingguai (2009). Revisiting Several Ways to Protect Intangible Cultural Heritage Inheritance, 8, 166-168
- Chen Feihong (2003). The characteristics of high pitched music in Hunan opera Yihai (04), 31-37
- Cai Zhenhe (2024). Continuing education needs and adaptive learning in the digital community environment Continue Education Research, (10).
- Chen Xiangyuan (2007). A Brief Discussion on Yueyang Baling Opera Journal of Yueyang Vocational and Technical College, 22 (1), 40-45
- Chen Xiaoqian (2019). Classroom Teaching Design for Jinghe Opera, a Local Drama Variety (Master's Thesis, Changjiang University) master
- Comrey, A.L., & Lee, H.B. (1992). A first course in factor analysis. Hillsdale, NJ: Erlbaum.
- Coman, C., Tîrnu, L. G., Meseşan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. Sustainability, 12(24), 10367.
- Cheng Qianqian (2023). Research and Application of Online Learning Platform Based on Personalized Learning Path Recommendation (Master's Thesis, Taiyuan Normal University) master
- Cherylyn, T. (2020). Adult Learners' Motivation and Self-Determination Towards Independent Piano Learning Through Mobile Application (Master's thesis, University of Malaya (Malaysia)).

- Chassiakos, A. P., & Sakellariopoulos, S. P. (2008). A web-based system for managing construction information. *Advances in Engineering Software*, 39(11), 865-876.
- Cai, Z., Cai, K., Huang, T., Zhang, G., & Chen, R. (2024). Spatial Distribution
- Cao Huizi (2015). *Drama House* (20), 30-31
- Chen Peng (2007). Research on the Mechanism and Model Construction of Lifelong Learning System in China (Master's Thesis, Shanxi University) master
- Chen Lin, Wang Chu&Chen Yaohua (2012). The strategic significance and innovative mode of lifelong learning information resource construction *Research on Modern Distance Education* (04), 41-46
- Easy to fly (2015). The basic types and development trends of voice used in Jinghe Opera singing *Drama House* (09), 63
- Fu Xianli (2007). Music Analysis of Baling Opera (Master's Thesis, Hunan Normal University)Yang Ting (2011).
- Gao Yanfang (2022). Research on the Inheritance of Jinghe Opera from the Perspective of Intangible Cultural Heritage Protection: A Review of Sang Jun's "Investigation of Jinghe Opera in Hubei Province" *Journal of Changjiang University (Social Sciences Edition)* (06), 125
- Gai Junfang,&Huang Baozhong (2022). Artificial Intelligence in Education: A New Revolution *Journal of Zhejiang University (Humanities and Social Sciences Edition)*, 52 (6), 53-65
- Gu Fengjia (2013). Research on the Design Principles of Micro Learning Curriculum from the Perspective of Lifelong Learning *Distance Education Journal* (04), 60-66
- Glance, D. G., Forsey, M., & Riley, M. (2013). The pedagogical foundations of massive open online courses. *First monday*.
- Tolochko, S., Voitovska, O., Bordiug, N., Tovkach, I., & Kratko, O. (2021). Current trends in the development of lifelong learning in the concept of higher education institutions (HEIS). *Laplace em Revista*, 3(7), 394-409.
- Eze, U. F., Etus, C., & Uzukwu, J. E. (2014). Database system concepts, implementations and organizations-a detailed survey. *Database*, 2(2).

- Characteristics and Sustainable Inheritance Strategies of National Traditional Fine Arts Intangible Cultural Heritage in China. *Sustainability*, 16(11), 4488.
- Head, A. (2016). Planning and designing academic library learning spaces: Expert perspectives of architects, librarians, and library consultants. *Librarians, and Library Consultants* (December 6, 2016). Hu Tiesheng, Huang Mingyan,&Li Min (2013). *The Three Stages of Micro course Development in China and Their Implications* (Doctoral Dissertation)
- Hou Huaiyin&Wang Xiaodan (2021) *The Introduction and Influence of Lifelong Education Theory in China Education Science* (05), 2-11
- Hou Huaiyin,&Wang Qian (2023). *Review and Reflection on the Construction of Autonomous Knowledge System in Education in China since the 20th Century Educational Science*, 39 (6), 1
- Huang Jiaqi (2023). *master*
- Huang Xiao'e (2019). *Research on the Construction of Teaching Quality Monitoring System in Online Learning Centers Information Recording Material* (04), 217-219
- Han Xuesong (2002). *Reform of Teacher Education Curriculum in China Based on the Concept of Lifelong Education* (Master's Thesis, Shaanxi Normal University) *master*
- JANTHAPASS, S., CHANTHAPASSA, N., & KENAPHOOM, S. (2024). The Evolution of Lifelong Learning: From Traditional Classrooms to Anywhere, Anytime Education. *Asian Education and Learning Review*, 2(1), 42-54.
- Jin Hanchuan (1990) *Chinese Opera Chronicles Hunan Volume Culture and Art Publishing House*
- Kalpana, T. (2014). A constructivist perspective on teaching and learning: A conceptual framework. *International Research Journal of Social Sciences*, 3(1), 27-29.
- Ketschau, T. J. (2017). A conceptual framework for the integration of corporate social responsibility and human resource development based on lifelong learning. *Sustainability*, 9(9), 1545.
- Kang Baocheng (2012). *The legal and regulatory basis for the formation of the Intangible Cultural Heritage Law of the People's Republic of China Ethnic art*, 1

- Lei Rong and Hu Beiming (2012). Journal of Sichuan University of Technology: Social Sciences Edition, 4, 12-16
- Liu Tuo (2024). Discussing the protection and inheritance of cultural heritage from the perspective of the protection policy of intangible cultural heritage China Cultural Heritage, (4).
- Lin Bixia, Wei Fengqun,&Zhao Jingxue (2021). Research progress and review of domestic heritage revitalization Hubei Agricultural Science, 60 (22), 11
- Liu Youjun (2008). The vocal evolution and singing characteristics of Jinghe Opera in Lizhou Yihai (05), 62
- Liu Youjun (2008). The vocal evolution and singing characteristics of Jinghe Opera in Lizhou Yihai (05), 62
- Liu Youjun (2008). The vocal evolution and singing characteristics of Jinghe Opera in Lizhou Yihai (05), 62
- Lu Xinfei (2022). Reflection on Open Online Teaching under the Concept of Lifelong Education - Vocational Schools Launch "Fundamentals of Electrical and Electronic Engineering" Online Courses for the Public Scientific Consultation (Education and Research) (12), 127-129
- Lin Weilian (2023). Research and Design of an Online Learning Platform for Zhuang Cultural Resources Based on Knowledge Graph (Master's Thesis, Yunnan Normal University) master
- Li Shuting (2024). Exploration of Issues and Strategies in the Construction of Digital Resources for Lifelong Learning Platforms Education and Research, 6 (8)
- Li Yan (2020). Research on the reference of ethnic singing techniques to the high pitched singing of Hunan opera Art Appreciation (24), 190-191
- Liu Yongquan,&Liu Haide (2014). Architecture of Future Learning Center at Open University - Design of Smart Learning Environment Based on PST Framework
- Lan Weidong (2003). Development of Teaching Service System for Distance Education Local Learning Centers Journal of Guangxi University: Natural Science Edition, 28 (2), 169-172

- Lengrand, P. (1975). An introduction to lifelong education.
- Lazaro Ortiz, S., & Jimenez de Madariaga, C. (2022). The UNESCO convention for the safeguarding of the intangible cultural heritage: a critical analysis. *International journal of cultural policy*, 28(3), 327-341.
- Lang Yingying, Ren Yan, and Gong Wentao (2017). Design and planning of an online learning platform based on new technologies *Digital Communication World* (05), 214-215
- Li Qing&Wang Tao (2012). MOOC: A massive open course model based on connectionism *China Distance Education* (03), 30-36
- Liang Hua. (2022). A Discussion on the Design of Mobile Contextual Learning Framework Based on Lifelong Learning, Modern Education and Practice, *Nanchang Institute of Technology*, (2)15-18
- Li Wei. (2020)Design and Application of a Crowdsourcing-Based Translation Teaching Practice Platform [J]. *Journal of Ningbo University (Educational Science Edition)*, (2) 90-98
- Ma Xiaona, Tula,&Xu Yingqing (2019). The current status of digital development of intangible cultural heritage *Chinese Science: Information Science*, 49 (2), 121-142.
- Miao Xuelan, Liu Ruixin,&Wang Huaifeng (2001). Principles and Applications of Database Systems Tutorial (Vol. 2, No. 0, p. 0). Machinery Industry Press
- Ni Hong. (2022). New Approaches to the Inheritance of Traditional Chinese Opera Art in the New Media Era, *Journal of Xinyang Normal University (Philosophy and Social Sciences Edition)*, (5), 100-105.
- Pan Jixin, Lei Yaozeng, Cheng Lulu,&Shi Hua (2010). A Review of Ubiquitous Learning Theory Research *Distance Education Journal*, 28 (002), 93-98
- Peters, M., & Romero, M. (2019). Lifelong learning ecologies in online higher education: Students' engagement in the continuum between formal and informal learning. *British Journal of Educational Technology*, 50(4), 1729-1743.
- Qu Jinghui, Liao Qimei, Xu Weizhong,&Chen Hanyong (2001). Establishment and Data Mining of Medical Information Database *Journal of the Fourth Military Medical*

University, 22 (1), 88-89

Qi Binbin, Bao Haogang, Zheng Yafeng, Li Yanyan. (2024). Learner-Centered Intelligent Learning Environment: Connotation, Framework, and Implementation Pathways. Research on Educational Technology and Learning Environments, National Engineering Research Center for Internet Education Intelligent Technology and Application, Beijing Normal University; Institute of Basic Education Research, Chinese Academy of Education Sciences; Educational Technology Center, Beijing Normal University, (10), 72-78.

Ronghuai Huang, Ying Hu, Mengyu Liu, and Jingwen Pan (2024). "Fundamental Theories of Teaching Reform in the Digital Era: Digital Pedagogy," Beijing Normal University, National Engineering Research Center for Cyberlearning and Intelligent Technology, Theoretical Research on Educational Technology, (6), 14-22.

Souto-Otero, M. (2024). Bringing formal and nonformal learning closer together: A reflection on crossovers in curriculum, pedagogy, assessment and learning environments. In *Informal Learning in Vocational Education and Training: Illuminating an Elusive Concept* (pp. 65-89). Wiesbaden: Springer Fachmedien Wiesbaden.

Su Zhenhua (2021). On the Origin and Voice of Jinghe Opera - Also on the Importance of Inheritors' 'Discourse' Music Exploration (02), 84-90

Su Zhenhua (2022). Retaining Inheritors - Taking Jinghe Opera as an Example Journal of Intangible Cultural Heritage Research (00), 380-392

Sang Jun and Selena (2019). A review of the research on Jinghe Opera in the past thirty years Journal of Changjiang University (Social Sciences Edition) (04), 18-22

Shi Xuwei (2021). Development and Practice of Yu Opera Research Course in Luoyang City (Master's Thesis, Luoyang Normal University) Master's degree

Song Weidong (2010). The artistic characteristics of the stage image in Baling opera Yihai, (8), 30-30

Sadeghi, M. (2019). A shift from classroom to distance learning: Advantages and limitations. International Journal of Research in English Education, 4(1), 80-88.



- Singh, M., Adebayo, S. O., Saini, M., & Singh, J. (2021). Indian government E-learning initiatives in response to COVID-19 crisis: A case study on online learning in Indian higher education system. *Education and Information Technologies*, 26(6), 7569-7607.
- Siemens, G., Gašević, D., & Dawson, S. (2015). Preparing for the digital university: A review of the history and current state of distance, blended and online learning.
- Song Weidong (2010). The artistic characteristics of the stage image in Baling opera Yihai, (08), 30
- Sun Wenhui (2005). The unique Jinghe Opera Learning Guide (07), 63
- Tang Chunzhi (1997) Hunan Opera Music Integration Volume • Yueyang City Volume Culture and Art Publishing House
- Tomczak, M. (2017). Is China a Model Member State of UNESCO in Implementing the 2003 Convention? Reasons, Benefits, and Criticisms. *Santander Art and Culture Law Review*, 3(2), 297-318. Springer International Publishing.
- Thwe, W. P., & Kalman, A. (2024). Lifelong learning in the educational setting: A systematic literature review. *The Asia-Pacific Education Researcher*, 33(2), 407-417.
- Wang Xingyan (2024). The historical path of constructing a lifelong education system in China *Continue Education Research*, (6).
- Wu Zhaofeng (1990) Hunan Volume: Integration of Chinese Opera Music Culture and Art Publishing House
- Wu Zunmin, Xie Haiyan (2004). The essential characteristics of the contemporary concept of lifelong learning and the international trends in its theoretical development *Continuing Education Research* (03), 31-36
- Wang Ping (2013). The new development and application of large-scale online open courses: from cMOOC to xMOOC *Research on Modern Distance Education* (03), 13-19
- Wang Lin. (2023). On the Reform and Innovation of Teaching Models in Opera Studies. *Art Education Theatre and Film Monthly*, 109



- Xu Yuanyuan (2013). Research on the Application of Open Courses in Cloud Computing Environment (Doctoral Dissertation, East China Normal University) doctor
- Xie Mei, Zhao Sen,&Zang Yuqi (2022). Research hotspots and trends in digitalization of intangible cultural heritage based on knowledge graph analysis of CNKI resources Journal of the University of Electronic Science and Technology of China, Social Sciences Edition, 24 (4), 75-83
- Xie Dan. (2019). On the Artistic Characteristics of Baling Opera in Yueyang, Hunan. Journal of Sichuan University for Nationalities, (6), 90-93.
- Xu Lihong (2024). Digital Inclusion: The Path to Promoting Elderly Participation in Smart Elderly Care Services Modern Management, 14, 1482.
- Jin Hanchuan Chinese Opera Chronicles: Hunan Volume [J] one thousand nine hundred and ninety
- Xie Xun (2006). The Learning Center in the Quality Assurance System of Online Education: Issues and Countermeasures (Doctoral Dissertation, Beijing: Capital Normal University)
- Yang Ting (2011). master
- Yi Ling, Xiao Zhangqi,&Xu Qinyi (2021). 30 Years of Intangible Cultural Heritage Protection in China: Achievements, Problems, and Implications Administrative Management Reform, 11, 65-73
- Yi Qin (2021). Research on the Protection and Inheritance Center of Hunan Opera in Changsha City from the Perspective of Ethnomusicology (Master's Thesis, Hunan Normal University) master
- Yang Heping&Wu Yuanhua (2017). Research on Hunan Opera from the Perspective of Oral History Journal of Social Sciences, Hunan Normal University (04), 52-58
- Yi Qin (2020). The Development Plan of Hunan Opera in Music School based Curriculum of Vocational Colleges: Taking the Practice of "Opera Entering Campus" at Hunan First Normal University as an Example The Voice of the Yellow River (11), 134-135+154
- Yuan Zhangai and Chen Xiangyuan (1989) Hunan Local Drama Chronicles (III) Baling

Opera Chronicles Hunan Literature and Art Publishing House

Yang Xiwen (1999). A Preliminary Study on the Sustainable Development of Education in China Human Geography, 14 (4), 60-62

Yu Zhuo. (2024). Research on the Teaching Ability of Music Education Researchers. Doctoral Dissertation, The Education University of Hong Kong, 1-206 .

Zhao Shi (2018). Research on Oral Historical Materials of Hunan Opera (Master's Thesis, Changsha University of Science and Technology) master

Zhang Lu,&Ma Li (2007). Database design Journal of Anyang Institute of Technology, 6 (4), 76-79

Zhou Xiaozhang (2017). Research on the Construction of the Integrated Teaching Model of "Online Education Platform+Learning Center" - Analysis and Reflection Based on the Hujiang Teaching Model Modern Educational Technology, 27 (10), 33-40

Zhou Xiaozhang (2017). Research on the Construction of the Integrated Teaching Model of "Online Education Platform+Learning Center" - Analysis and Reflection Based on the Hujiang Teaching Model Modern Educational Technology (10), 33-40

Zhou, G. C. (2021). Teaching Reform and Textbook Development of the "Opera Appreciation" Course. Journal of Yulin Normal University (Philosophy and Social Sciences), (4), 133-136.

Xiao Yuqiang. (2022). The "Digital Twin" of Chinese Opera and Folk Artifacts Collected Overseas and the Construction of a Digital Resource Platform. Cultural Heritage, (1), 89-96

Zhao Yihan. (2024). Exploring the Value Implications and Pathways for the Joint Development of Talent and General Education in Traditional Chinese Opera in Higher Education Institutions, Advances in Education, Xi'an Jiaotong University, School of Marxism, (8), 1498-1505

Xiaohong Tian, Yilong Ji, and Yueliang Zhou (2023). "Reconstructing Teacher Competency Framework: Key Support for the Digital Transformation of Education," Zhejiang Normal University, College of Education / Zhejiang Provincial Key

Laboratory of Intelligent Educational Technology and Applications, (3), 91-100

Zhong Haiou, Li Yang, Liao Siqin,&Xia Ying (2024). Investigation and Analysis of College Students' Reading Behavior of Excellent Traditional Chinese Culture: A Case Study of 12 Universities and Research Institutions in Sichuan Province

Journal of Academic Library & Information Science, 42(3).





## APPENDIX



## Appendix 1

### Questionnaire on the importance of opera

This questionnaire is from the PhD research project of Shilokarin Willow University, the purpose of the research is to investigate the status of Baling Opera, Jinghe Opera and Xiang Opera in people's mind. Please fill in the questionnaire objectively. The statistical results of the sample will be of great reference value to my research work. Thank you very much for your participation! Contact e-mail: 542859649@QQ.Com

Gender: Male ☐ Female ☐

Age: Under 30 ☐ 30-40 ☐ 40-50 ☐ Over 50 ☐

Occupation: Government employee ☐ Private employee ☐ Student ☐ Other ☐

Education: Less than high school ☐ High school ☐ University ☐

Respondents: college students ☐ resident population ☐ tourists ☐ workers ☐

serial number	Question	evaluation				
		couldn't agree more	agree with	general	disagr ee	Strongly disagree
1	Hunan is a province with a strong emphasis on traditional Chinese opera	91%	7.1%	1.1%	0.8%	0.005
2	Baling Opera is the first batch of national intangible cultural heritage and a representative of Hunan opera	90%	8.2%	1.79%	0.01%	0.005
3	Hunan Opera is the first batch of national intangible cultural heritage and a representative of Hunan opera	93.2%	6.5%	1.3%	0,00%	0,00%
4	Jinghe Opera is the first batch of national intangible cultural heritage and a representative of Xiangnan Opera	89.9%	9.4%	0.5%	0.00%	0.00%



Appendix 2:



Preparation Stage						
Learning stage						
Evaluation and feedback stage						
Learning Process						
Selecting learning materials						
Determining suitability						
Generating link and starting playback preparation						
Displaying learning content						
Completion						
Discussion Area						
Students enter the classroom						
Generate link and start playing learning content						
Enable discussion feature						
Find learners at the same pace						
End discussion						
Homework Submission Area						
Access post-class homework submission portal						
Real-time homework recording						
Upload homework materials						
Generate feedback						
Effectiveness						



Appendix3



### ข้อปฏิบัติสำหรับผู้วิจัย

#### โครงการที่ผ่านการรับรองจริยธรรมการวิจัยในมนุษย์

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยศรีนครินทรวิโรฒ แจ้งให้ทราบเกี่ยวกับหน้าที่และความรับผิดชอบของผู้วิจัยภายหลังจากโครงการวิจัย ได้ผ่านการรับรองจริยธรรมการวิจัยในมนุษย์แล้ว ดังต่อไปนี้

- 1 ผู้วิจัยจะต้องดำเนินการวิจัยตามขั้นตอนต่างๆที่ระบุไว้ในโครงร่างการวิจัยโดยเคร่งครัด โดยใช้เอกสารคำชี้แจง และแบบยินยอม รวมถึงเอกสารอื่นๆ ที่ได้ผ่านการรับรองจากคณะกรรมการแล้วเท่านั้น
- 2 ผู้วิจัยที่มีหน้าที่รายงานต่อคณะกรรมการจริยธรรมฯ ตาม SOP บทที่ 6 เมื่อ
  - 2.1 มีการดำเนินงานวิจัยครบระยะเวลานึ่ง ซึ่งจะต้องมีการรายงานความก้าวหน้าตามระยะเวลาที่คณะกรรมการฯ กำหนดในเอกสารรับรอง หรือเมื่อครบหนึ่งปีจากวันที่ระบุไว้ในเอกสารรับรองจริยธรรมการวิจัยของโครงการ โดยใช้แบบรายงานความก้าวหน้า (SWUEC-Progress, AF/01-06/03.0)
  - 2.2 มีการดำเนินการวิจัยไม่ทันตามที่กำหนด โดยทั่วไปคณะกรรมการฯ จะให้การรับรองไม่เกิน 1 ปี ก่อนวันหมดอายุตามที่กำหนดไว้ในหนังสือรับรอง ผู้วิจัยจะต้องเสนอเอกสารขอต่ออายุการรับรองโครงการวิจัย โดยใช้ แบบเสนอขอต่อกรรับรองโครงการ (SWUEC-Renew, AF/02-06/03.0) ภายใน 30 วันก่อนหมดอายุ เพื่อให้ทางหน่วยฯ ได้มีระยะเวลาจัดเตรียมเอกสารเข้าประชุมก่อนโครงการวิจัยจะหมดอายุ ทั้งนี้หากท่านยังไม่ได้รับเอกสารรับรองการต่ออายุจากคณะกรรมการฯ จะไม่สามารถรับอาสาสมัครใหม่ระหว่างที่โครงการวิจัยหมดอายุได้ **กรณีหน่วยฯ ไม่ได้รับการติดต่อกลับจากผู้วิจัย ภายในระยะเวลา 6 เดือน นับจากวันที่โครงการวิจัยหมดอายุการรับรองเอกสารโครงการวิจัยจะถูกทำลาย 3 ปี นับจากวันที่หมดอายุการรับรอง**
  - 2.3 มีความจำเป็นในการปรับปรุงโครงการวิจัย (Protocol Amendment) หรือ มีการเปลี่ยนแปลงหัวหน้าโครงการวิจัย/เพิ่มเติมผู้ร่วมวิจัย ผู้วิจัยจะต้องเสนอการปรับปรุงเป็น แบบรายงานขอการปรับปรุงโครงการวิจัย (SWUEC-Amend, AF/03-06/03.0) ตามที่ได้กำหนดไว้ โดยอ้างอิงรหัสโครงการตามที่ได้รับการรับรอง โดยต้องระบุให้ชัดเจนว่า มีการเปลี่ยนแปลงอะไร อย่างไร และเหตุผลที่ต้องมีการเปลี่ยนแปลง ทั้งนี้ในกรณีการเปลี่ยนแปลงหัวหน้าโครงการวิจัย/เพิ่มเติมผู้ร่วมวิจัยคนใหม่ ให้แนบประวัติมาด้วย
  - 2.4 มีอาการไม่พึงประสงค์รุนแรงจากการดำเนินโครงการวิจัย (Serious Adverse Events) เกิดขึ้นแก่อาสาสมัคร ผู้วิจัยจะต้องทำเอกสารแจ้งคณะกรรมการฯ ภายใน 7 วันปฏิทิน และหากอาการไม่พึงประสงค์รุนแรงนั้น เป็นเหตุให้อาสาสมัครถึงแก่ชีวิต ต้องแจ้งภายใน 24 ชั่วโมง (โดยทางจดหมาย

จดหมายอิเล็กทรอนิกส์ หรือโทรสาร) หลังจากผู้วิจัยทราบเหตุการณ์ โดยใช้แบบรายงานเหตุการณ์ไม่พึงประสงค์สำหรับอาสาสมัครในสถาบัน (SWUEC-SAE-Local, AF/04-06/03.0) และแนบรูปแบบเอกสารรายงานเป็นสำเนา SAE Report Form ที่กำหนดโดยผู้สนับสนุนทุนวิจัย หากไม่มีแบบรายงาน จากผู้สนับสนุนทุนวิจัยให้ใช้แบบรายงานของ SWUEC ตามที่กำหนดอย่างเดียว กรณีเป็นรายงานเหตุการณ์ไม่พึงประสงค์ที่เกิดแก่อาสาสมัครนอกสถาบัน ซึ่งบริษัทผู้สนับสนุนส่งให้ผู้วิจัย ให้ใช้แบบรายงานเหตุการณ์ไม่พึงประสงค์ที่เกิดแก่อาสาสมัครนอกสถาบัน (SWUEC-SAE-External, AF/05-06/03.0) แนบกับแบบรายงานเหตุการณ์ไม่พึงประสงค์ที่บริษัทผู้สนับสนุน

- 2.5 มีการดำเนินการใดๆ ที่ไม่ถูกต้องตามระเบียบการวิจัยที่กำหนดไว้ ผู้วิจัยจะต้องรายงานให้คณะกรรมการฯ รับทราบภายใน 7 วันปฏิทิน หลังจากที่ได้ตรวจพบ โดยใช้แบบรายงานการดำเนินงานวิจัยที่เบี่ยงเบน (SWUEC-deviation, AF/06-06/03.0)
- 2.6 การวิจัยเสร็จสิ้นลงหรือยุติการวิจัยด้วยใดๆ ให้ผู้วิจัยมีหนังสือแจ้งปิดโครงการวิจัยนั้นพร้อมผลการดำเนินการวิจัยให้คณะกรรมการฯ ทราบ ตามแบบรายงานแจ้งการปิดโครงการวิจัย (SWUEC-Close, AF/07-06/03.0) ทั้งนี้โครงการที่รายงานแจ้งปิดและได้รับการพิจารณา โดยคณะกรรมการฯ แล้ว ถือว่าเป็นการสิ้นสุด ไม่สามารถขอยกเลิกการแจ้งปิดได้อีก
- 3 คณะกรรมการฯ จะมีการสุ่มเข้าตรวจเยี่ยมโครงการวิจัยเพื่อตรวจสอบความเรียบร้อยของการดำเนินงาน และรับฟัง และให้คำปรึกษาข้อปัญหาที่อาจมีในระหว่างการดำเนินการวิจัย โดยคณะกรรมการฯ จะมีหนังสือแจ้งให้ทราบ ล่วงหน้าเป็นเวลา 2 สัปดาห์ ผลการตรวจเยี่ยมโครงการวิจัยจะแจ้งเพื่อทราบในที่ประชุมคณะกรรมการฯ และจะแจ้งผลการพิจารณาให้ผู้วิจัยได้ทราบ และอาจมีข้อเสนอแนะให้ปฏิบัติต่อไป



Appendix4



AF20-03-03.0  
May, 2023

### Certificate of Ethical Committee Approval

This is to certify that:

**Protocol Title:** The Development of Intangible Cultural Heritage Online Learning Center for Lifelong Learning.

**Principal investigator:** Ms.dan xie

**Institution:** Faculty of Fine Arts, Srinakharinwirot University

**Protocol code:** SWUEC-672521

**Documents approved:**

- |   |                                      |
|---|--------------------------------------|
| 1. Submission form                                | version no. 2 date 11 September 2024 |
| 2. Full research proposal                         | version no. 1 date 27 June 2024      |
| 3. Participant information sheet and consent form | version no. 2 date 11 September 2024 |
| 4. Questionnaire/data collection form             | version no. 2 date 11 September 2024 |
| 5. Investigator's biography                       |                                      |

have been reviewed and approved by the Human Research Ethics Committee of Srinakharinwirot University based on Declaration of Helsinki, Belmont Report, International Conference on Harmonization in Good Clinical Practice (ICH-GCP), International Guidelines for Human Research, along with laws and regulations of Thailand. Thus, the approval for conducting the study is granted.

**Date of approval:** 10/10/2024

**Date of expiration:** 09/10/2025

(Associate Professor Sittipong Wattananonsakul, Ph.D.)

Chairman, Social Science and Behavioral Science Research Sub-Committee  
of Srinakharinwirot University (Panel 2)

---

Ethics and Research Standards Devision  
Innovation Building Prof. Dr. Saroch Buasri, Floor 17  
Srinakharinwirot University, 10110 Thailand  
Tel.: +66-26-495000, 17503 Fax: (02) 2042590



Appendix5

### Semi-structured interviews with non-inheritors

I am a doctoral student majoring in art education in the School of Art of Sinakarin Willow University. In order to better understand the current situation and problems of drama learning among lifelong education groups in Hunan, I am very honored to conduct this interview with you. I will keep the interview contents strictly confidential. Thank you again for your help and support.

**The questionnaire is applicable to:** Opera is not a genetic bearer

**Name of respondent:** Liu Maolin, the provincial inheritor of Baling Opera, Cao Rulong, the national inheritor of Xiang Opera, and Zhang Rong, the provincial inheritor of Jinghe Opera

**Opera non-genetic heirs:**

1. Which opera are you a non-genetic inheritor of?
2. What age group are the students you teach?
3. What are your representative works?
4. What awards have you received in this field?
5. At present, the educational inheritance of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera) is as follows  
How is it?
6. What measures does the Chinese government take for the education and development of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera and Hunan Opera)?
7. What measures have you taken for the educational inheritance of some Hunan operas (Baling Opera, Jinghe Opera, Hunan Opera)?
8. What are the learning groups of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera)?
9. What do you think people who are interested in the intangible cultural heritage of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera) are more willing to learn?
10. If you are asked to teach some of the intangible cultural relics of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera), what content would you prefer to teach learners?
11. Have you ever participated in the recording of video performances of some Hunan opera intangible cultural heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
12. In what form are the video materials of some Hunan operas (Baling Opera, Jinghe Opera and Hunan Opera) transmitted?
13. For the lifelong education group who love some Hunan operas (Baling Opera, Jinghe Opera, Hunan Opera), how receptive are they to learning these operas? Was it difficult to learn?
14. Are there any online platforms for teaching some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera)?
15. Do you think people who are interested in some of Hunan's opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera) can accept online teaching?

Version 2 Date 11 September 2024





### Opera experts semi-structured interview questions

I am a doctoral student majoring in art education in the School of Art of Sinakarin Willow University. In order to better understand the current situation and problems of drama learning among lifelong education groups in Hunan, I am very honored to conduct this interview with you. I will keep the interview contents strictly confidential. Thank you again for your help and support.

**Questionnaire for:** opera experts

**Respondent's name:** Pang Yi, Associate Professor and vice President of School of Music, Hunan University of Science and Technology; Zhou Li, Associate Professor and erhu performer, School of Music, Hunan University of Science and Technology; Sichuan Conservatory of Music professor, ethnomusicologist Gan Shaocheng.

**Questionnaire questions:**

1. Where is your work unit?
2. What kind of research work are you engaged in?
3. When did you start to pay attention to and study some intangible cultural relics of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera)?
4. What do you think of the current educational inheritance status of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera)?
5. What measures do you think the Chinese government has taken for the educational development of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera and Hunan Opera)?
6. Have you ever paid attention to the learning groups of some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera)?
7. What do you think are the problems faced by learners of some Hunan operas (Baling Opera, Jinghe Opera, Hunan Opera)?
8. Have you ever participated in the video recording of the knowledge lectures of some Hunan opera intangible cultural heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
9. Have you written any relevant papers and works on the intangible cultural heritage of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera)?
10. Have you ever hosted or participated in some relevant topics of Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
11. Are there any teaching books of Hunan opera intangible cultural heritage (Baling Opera, Jinghe Opera, Hunan Opera) available on the market?
12. Do you think the online opera learning platform can provide learners with learning?
13. If an online opera learning center is created for some opera intangible heritage in Hunan (Baling Opera, Jinghe Opera, Hunan Opera), will it provide better learning opportunities for students and lifelong learners?
14. Establish an online opera learning center for some Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera), then how to set the course content of the opera learning center?
15. Could you please talk about your expectations and suggestions for the future

Version 2 Date 11 September 2024



development of the teaching of some opera intangible cultural heritage in Hunan  
(Baling Opera, Jinghe Opera, Hunan Opera)?

### Questionnaire

Version 2 Date 11 September 2024



This questionnaire is for the Education Doctor project of Sinakalin Willow University, Thailand. It will take you 15 minutes of your precious time. Please give your valuable comments and suggestions. Dr. Xie Dan, the researcher of the project, would like to thank you.

**The questionnaire is applicable to:** college students

**Institutions:** Sichuan Conservatory of Music and Hunan Institute of Science and Technology

**Questionnaire group:** vocal singing major and music education major

**Number of questionnaires:** 100 college students

**Questionnaire questions:**

1. Are you a full-time online student
  - ☐ Yes
  - ☐ no
2. Are you a lifelong education learner
  - ☐ Yes
  - ☐ no
3. What is your gender
  - ☐ Man
  - ☐ woman
4. Have you ever participated in any activities related to intangible heritage opera culture
  - ☐ Yes
  - ☐ no
5. Do you know Chinese intangible cultural heritage opera culture
  - ☐ Yes
  - ☐ no
6. How much do you know about Chinese intangible heritage opera culture
  - ☐ I have no idea
  - ☐ Little known
  - ☐ Learn more
  - ☐ Know more
  - ☐ Very understanding
7. Are you interested in Chinese intangible heritage opera culture
  - ☐ Not interested at all
  - ☐ Not very interested
  - ☐ A little interested
  - ☐ More interested
  - ☐ Very interested
8. Do you know Baling Opera in Hunan Opera intangible heritage

Version 2 Date 11 September 2024



- ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
9. Do you know the Jinghe Opera in Hunan Opera intangible heritage
- ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
10. Do you know the Hunan Opera in the intangible heritage of Hunan Opera
- ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
11. Do you think it is necessary to educate and inherit Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)
- ☐ Necessary
  - ☐ Very necessary
  - ☐ No need
  - ☐ Totally unnecessary
  - ☐ It doesn't matter
12. How do you know about Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
- ☐ Straw team
  - ☐ Theater
  - ☐ TV
  - ☐ School
  - ☐ Troupe
13. Are you willing to learn Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
- ☐ Yes
  - ☐ Very willing
  - ☐ Not willing
  - ☐ Very reluctant
  - ☐ It doesn't matter
14. What do you like about Chinese opera
- ☐ Beautiful singing
  - ☐ Traditional artistic value
  - ☐ Clothing
  - ☐ Makeup
  - ☐ Body technique

15. What do you think of Chinese opera

- ☐ Chinese quintessence beautiful
- ☐ Know beauty but don't appreciate it
- ☐ Bored
- ☐ Old-fashioned

16. What is your favorite teaching method of intangible cultural heritage in traditional Chinese opera

- ☐ Offline classroom teaching
- ☐ Teach alone
- ☐ Group class face-to-face
- ☐ Combine online classroom teaching with online teaching
- ☐ Online Teaching

14. Can you accept online learning

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

15. Can you accept online opera courses

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

16. Have you ever used online platforms to learn Chinese opera

- ☐ Yes
- ☐ no

17. Do you think online teaching of opera can help students learn knowledge

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

18. What kind of knowledge do you hope to acquire through the online learning platform of intangible Heritage opera culture

- ☐ History of Chinese Opera
- ☐ Opera performance skills
- ☐ Costume makeup of opera
- ☐ Opera art appreciation
- ☐ Other (please specify)

19. How often do you use online learning platforms

- ☐ Every day
- ☐ Five times a week

- ☐ Three times a week
  - ☐ Twice a week
  - ☐ Once a week
20. If you want to learn opera on the learning platform, how many minutes do you want each class time to be
- ☐ Less than 15 minutes
  - ☐ 15-30 minutes
  - ☐ 30-45 minutes
  - ☐ 45-60 minutes
  - ☐ More than 60 minutes
21. What devices do you use for online learning at home
- ☐ Mobile phone
  - ☐ Flat plate
  - ☐ Notebook
  - ☐ Desktop computer
  - ☐ Other (please specify)
22. Can you use the device alone for online central learning
- ☐ It can operate by itself
  - ☐ Not able to operate on their own
  - ☐ Cannot operate by yourself
  - ☐ Cannot operate by yourself
  - ☐ Need help to operate
23. What is the biggest problem you have encountered when using online learning platforms
- ☐ Technical Problems
  - ☐ Network problems
  - ☐ Content quality problems
  - ☐ Insufficient interaction
  - ☐ Other (please specify)
24. Do you think that learning intangible heritage opera culture online platform can help you better understand and inherit opera culture
- ☐ Yes
  - ☐ no
25. What functions do you want to experience in the APPA art of some Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)
- ☐ Watch Xiqu related cartoons
  - ☐ Mini games
  - ☐ Watch drama variety shows
  - ☐ Fun photo
  - ☐ Video playback
26. In what form do you want to learn some of the intangible cultural relics of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera)?
- ☐ Combined with music
  - ☐ Combined with games

- ☐ Combined with dance
- ☐ Combined with animation
- ☐ Combined with melodrama

27. Is the data transmission of the online platform of intangible cultural heritage opera smooth

- ☐ Smooth
- ☐ Very smooth
- ☐ It's a little fluid
- ☐ Not smooth
- ☐ Very fluid

28. What are your expectations for the interface design of the Intangible Heritage Opera Culture online platform

- ☐ Easy to use
- ☐ Concise and clear
- ☐ Rich in functions
- ☐ Beautiful and generous
- ☐ Other (please specify)

29. What do you think is the most important function of the Intangible Heritage opera culture online learning platform?

- ☐ Video Courses
- ☐ Feedback mechanism
- ☐ Interactive community
- ☐ Private customization
- ☐ Download learning resources

30. Are you willing to pay for high quality online learning content of intangible Heritage opera culture?

- ☐ Yes
- ☐ Very willing
- ☐ General
- ☐ Not very willing
- ☐ Not at all

## Questionnaire

Version 2 Date 11 September 2024



This questionnaire is for the Education Doctor project of Sinakalin Willow University, Thailand. It will take you 15 minutes of your precious time. Please give your valuable comments and suggestions. Dr. Xie Dan, the researcher of the project, would like to thank you.

**The questionnaire is applicable to:** Students who have already graduated

**Institutions:** Sichuan Conservatory of Music

**Questionnaire group:** music major

**Number of questionnaires:** 100 for students who have graduated

**Questionnaire questions:**

1. Are you a full-time online student
  - ☐ Yes
  - ☐ no
2. Are you a lifelong education learner
  - ☐ Yes
  - ☐ no
3. What is your gender
  - ☐ Man
  - ☐ woman
4. Have you ever participated in any activities related to intangible heritage opera culture
  - ☐ Yes
  - ☐ no
5. Do you know Chinese intangible cultural heritage opera culture
  - ☐ Yes
  - ☐ no
6. How much do you know about Chinese intangible heritage opera culture
  - ☐ I have no idea
  - ☐ Little known
  - ☐ Learn more
  - ☐ Know more
  - ☐ Very understanding
7. Are you interested in Chinese intangible heritage opera culture
  - ☐ Not interested at all
  - ☐ Not very interested
  - ☐ A little interested
  - ☐ More interested
  - ☐ Very interested
8. Do you know Baling Opera in Hunan Opera intangible heritage
  - ☐ Understand
  - ☐ General Understanding

Version 2 Date 11 September 2024





- ☐ Very understanding
- ☐ Do not understand
- ☐ I have no idea
- 9. Do you know the Jinghe Opera in Hunan Opera intangible heritage
  - ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
- 10. Do you know the Hunan Opera in the intangible heritage of Hunan Opera
  - ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
- 11. Do you think it is necessary to educate and inherit Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)
  - ☐ Necessary
  - ☐ Very necessary
  - ☐ No need
  - ☐ Totally unnecessary
  - ☐ It doesn't matter
- 12. How do you know about Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
  - ☐ Straw team
  - ☐ Theater
  - ☐ TV
  - ☐ School
  - ☐ Troupe
- 13. Are you willing to learn Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
  - ☐ Yes
  - ☐ Very willing
  - ☐ Not willing
  - ☐ Very reluctant
  - ☐ It doesn't matter
- 14. What do you like about Chinese opera
  - ☐ Beautiful singing
  - ☐ Traditional artistic value
  - ☐ Clothing
  - ☐ Makeup
  - ☐ Body technique
- 15. What do you think of Chinese opera
  - ☐ Chinese quintessence

beautiful

- ☐ Know beauty but don't appreciate it
- ☐ Bored
- ☐ Old-fashioned

16. What is your favorite teaching method of intangible cultural heritage in traditional Chinese opera

- ☐ Offline classroom teaching
- ☐ Teach alone
- ☐ Group class face-to-face
- ☐ Combine online classroom teaching with online teaching
- ☐ Online Teaching

14. Can you accept online learning

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

15. Can you accept online opera courses

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

16. Have you ever used online platforms to learn Chinese opera

- ☐ Yes
- ☐ no

17. Do you think online teaching of opera can help students learn knowledge

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

18. What kind of knowledge do you hope to acquire through the online learning platform of intangible Heritage opera culture

- ☐ History of Chinese Opera
- ☐ Opera performance skills
- ☐ Costume makeup of opera
- ☐ Opera art appreciation
- ☐ Other (please specify)

19. How often do you use online learning platforms

- ☐ Every day
- ☐ Five times a week
- ☐ Three times a week
- ☐ Twice a week

☐ Once a week

20. If you want to learn opera on the learning platform, how many minutes do you want each class time to be

☐ Less than 15 minutes

☐ 15-30 minutes

☐ 30-45 minutes

☐ 45-60 minutes

☐ More than 60 minutes

21. What devices do you use for online learning at home

☐ Mobile phone

☐ Flat plate

☐ Notebook

☐ Desktop computer

☐ Other (please specify)

22. Can you use the device alone for online central learning

☐ It can operate by itself

☐ Not able to operate on their own

☐ Cannot operate by yourself

☐ Cannot operate by yourself

☐ Need help to operate

23. What is the biggest problem you have encountered when using online learning platforms

☐ Technical Problems

☐ Network problems

☐ Content quality problems

☐ Insufficient interaction

☐ Other (please specify)

24. Do you think that learning intangible heritage opera culture online platform can help you better understand and inherit opera culture

☐ Yes

☐ no

25. What functions do you want to experience in the APPA art of some Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)

☐ Watch Xiqu related cartoons

☐ Mini games

☐ Watch drama variety shows

☐ Fun photo

☐ Video playback

26. In what form do you want to learn some of the intangible cultural relics of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera)?

☐ Combined with music

☐ Combined with games

☐ Combined with dance

☐ Combined with animation

☐ Combined with melodrama

27. Is the data transmission of the online platform of intangible cultural heritage opera smooth

☐ Smooth

☐ Very smooth

☐ It's a little fluid

☐ Not smooth

☐ Very fluid

28. What are your expectations for the interface design of the Intangible Heritage Opera Culture online platform

☐ Easy to use

☐ Concise and clear

☐ Rich in functions

☐ Beautiful and generous

☐ Other (please specify)

29. What do you think is the most important function of the Intangible Heritage opera culture online learning platform?

☐ Video Courses

☐ Feedback mechanism

☐ Interactive community

☐ Private customization

☐ Download learning resources

30. Are you willing to pay for high quality online learning content of intangible Heritage opera culture?

☐ Yes

☐ Very willing

☐ General

☐ Not very willing

☐ Not at all

## Questionnaire

Version 2 Date 11 September 2024



This questionnaire is for the Education Doctor project of Sinakalin Willow University, Thailand. It will take you 15 minutes of your precious time. Please give your valuable comments and suggestions. Dr. Xie Dan, the researcher of the project, would like to thank you.

**The questionnaire is applicable to:** Social group

**Institutions:** Social group

**Questionnaire group:** Various majors

**Number of questionnaires:** Social population 100 copies

**Questionnaire questions:**

1. Are you a full-time online student
  - ☐ Yes
  - ☐ no
2. Are you a lifelong education learner
  - ☐ Yes
  - ☐ no
3. What is your gender
  - ☐ Man
  - ☐ woman
4. Have you ever participated in any activities related to intangible heritage opera culture
  - ☐ Yes
  - ☐ no
5. Do you know Chinese intangible cultural heritage opera culture
  - ☐ Yes
  - ☐ no
6. How much do you know about Chinese intangible heritage opera culture
  - ☐ I have no idea
  - ☐ Little known
  - ☐ Learn more
  - ☐ Know more
  - ☐ Very understanding
7. Are you interested in Chinese intangible heritage opera culture
  - ☐ Not interested at all
  - ☐ Not very interested
  - ☐ A little interested
  - ☐ More interested
  - ☐ Very interested
8. Do you know Baling Opera in Hunan Opera intangible heritage
  - ☐ Understand
  - ☐ General Understanding

Version 2 Date 11 September 2024



- ☐ Very understanding
- ☐ Do not understand
- ☐ I have no idea
- 9. Do you know the Jinghe Opera in Hunan Opera intangible heritage
  - ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
- 10. Do you know the Hunan Opera in the intangible heritage of Hunan Opera
  - ☐ Understand
  - ☐ General Understanding
  - ☐ Very understanding
  - ☐ Do not understand
  - ☐ I have no idea
- 11. Do you think it is necessary to educate and inherit Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)
  - ☐ Necessary
  - ☐ Very necessary
  - ☐ No need
  - ☐ Totally unnecessary
  - ☐ It doesn't matter
- 12. How do you know about Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
  - ☐ Straw team
  - ☐ Theater
  - ☐ TV
  - ☐ School
  - ☐ Troupe
- 13. Are you willing to learn Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)?
  - ☐ Yes
  - ☐ Very willing
  - ☐ Not willing
  - ☐ Very reluctant
  - ☐ It doesn't matter
- 14. What do you like about Chinese opera
  - ☐ Beautiful singing
  - ☐ Traditional artistic value
  - ☐ Clothing
  - ☐ Makeup
  - ☐ Body technique
- 15. What do you think of Chinese opera
  - ☐ Chinese quintessence

beautiful

- ☐ Know beauty but don't appreciate it
- ☐ Bored
- ☐ Old-fashioned

16. What is your favorite teaching method of intangible cultural heritage in traditional Chinese opera

- ☐ Offline classroom teaching
- ☐ Teach alone
- ☐ Group class face-to-face
- ☐ Combine online classroom teaching with online teaching
- ☐ Online Teaching

14. Can you accept online learning

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

15. Can you accept online opera courses

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

16. Have you ever used online platforms to learn Chinese opera

- ☐ Yes
- ☐ no

17. Do you think online teaching of opera can help students learn knowledge

- ☐ energy
- ☐ Barely able
- ☐ cannot
- ☐ Not really
- ☐ It doesn't matter

18. What kind of knowledge do you hope to acquire through the online learning platform of intangible Heritage opera culture

- ☐ History of Chinese Opera
- ☐ Opera performance skills
- ☐ Costume makeup of opera
- ☐ Opera art appreciation
- ☐ Other (please specify)

19. How often do you use online learning platforms

- ☐ Every day
- ☐ Five times a week
- ☐ Three times a week
- ☐ Twice a week

☐ Once a week

20. If you want to learn opera on the learning platform, how many minutes do you want each class time to be

☐ Less than 15 minutes

☐ 15-30 minutes

☐ 30-45 minutes

☐ 45-60 minutes

☐ More than 60 minutes

21. What devices do you use for online learning at home

☐ Mobile phone

☐ Flat plate

☐ Notebook

☐ Desktop computer

☐ Other (please specify)

22. Can you use the device alone for online central learning

☐ It can operate by itself

☐ Not able to operate on their own

☐ Cannot operate by yourself

☐ Cannot operate by yourself

☐ Need help to operate

23. What is the biggest problem you have encountered when using online learning platforms

☐ Technical Problems

☐ Network problems

☐ Content quality problems

☐ Insufficient interaction

☐ Other (please specify)

24. Do you think that learning intangible heritage opera culture online platform can help you better understand and inherit opera culture

☐ Yes

☐ no

25. What functions do you want to experience in the APPA art of some Hunan opera intangible heritage (Baling Opera, Jinghe Opera, Hunan Opera)

☐ Watch Xiqu related cartoons

☐ Mini games

☐ Watch drama variety shows

☐ Fun photo

☐ Video playback

26. In what form do you want to learn some of the intangible cultural relics of Hunan opera (Baling Opera, Jinghe Opera, Hunan Opera)?

☐ Combined with music

☐ Combined with games

☐ Combined with dance

☐ Combined with animation



☐ Combined with melodrama

27. Is the data transmission of the online platform of intangible cultural heritage opera smooth

☐ Smooth

☐ Very smooth

☐ It's a little fluid

☐ Not smooth

☐ Very fluid

28. What are your expectations for the interface design of the Intangible Heritage Opera Culture online platform

☐ Easy to use

☐ Concise and clear

☐ Rich in functions

☐ Beautiful and generous

☐ Other (please specify)

29. What do you think is the most important function of the Intangible Heritage opera culture online learning platform?

☐ Video Courses

☐ Feedback mechanism

☐ Interactive community

☐ Private customization

☐ Download learning resources

30. Are you willing to pay for high quality online learning content of intangible Heritage opera culture?

☐ Yes

☐ Very willing

☐ General

☐ Not very willing

☐ Not at all



Appendix6

### Participant Information Sheet

**Research title:**

**THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE  
ONLINE LEARNING CENTER FOR LIFELONG LEARNING**

**Principal Investigator: Dan XIE**

**Institution:** Srinakharinwirot University

**Co-participating researchers:** -

**Research funding source:** -

**Dear Participant**

I (Dan XIE: Student in Doctor of Education Program in Arts Education, Faculty of Fine Arts, Srinakharinwirot University) am carrying out a research on " THE DEVELOPMENT OF INTANGIBLE CULTURAL HERITAGE ONLINE LEARNING CENTER FOR LIFELONG LEARNING" with the objective of the research

1. Inheriting part of Hunan opera. The knowledge map of some operas in Hunan (Baling Opera, Xiang Opera, Jinghe Opera) was constructed, and the data were sorted out to form a database

2. Designed some online courses of Hunan opera (Baling Opera, Xiang Opera, Jinghe Opera).

3. Build an online learning platform for opera, so that people who are interested in this kind of opera can achieve the purpose of lifelong learning. On the basis of constructing the knowledge map of some Hunan operas (Baling Opera, Xiang Opera, Jinghe Opera) and studying the network course, the online learning platform of some Hunan operas based on the knowledge map is designed and realized.

4. Application and effectiveness analysis of online learning platforms for some Hunan operas (Baling Opera, Xiang Opera, Jinghe Opera). The practical application of the platform is carried out, and the use effect of the platform is analyzed from three dimensions of platform function design, platform effectiveness and platform satisfaction by means of questionnaire.

The direct benefit you will receive from this study is:

Introduce some outstanding opera culture of Hunan (Baling Opera, Jinghe Opera, Hunan Opera) into the teaching curriculum of lifelong education, use online platform and network teaching to select excellent traditional culture of a certain region for teaching and publicity, let people who participate in lifelong teaching and learning participate in the research, dissemination and promotion of traditional culture, and enhance learners' understanding and cognition of traditional culture. It plays an important role in carrying out the fundamental task of moral education and cultivating people. By studying the curriculum development measures of some Hunan operas (Baling Opera, Xiang Opera, Jinghe Opera), it further explores and improves the curriculum system of China's lifelong education, and promotes the development of China's excellent traditional culture. Secondly, under the background of "Internet + education", online learning has become the mainstream learning method of lifelong

Version 2 Date 11 September 2024



education in China due to its advantages of flexible time, breaking through geographical boundaries, stronger learning pertinence and better implementation of personalized teaching. Based on this background, some operas in Hunan (Baling Opera, Hunan Opera, Hunan Opera, Hunan Opera, etc.) have been studied. It is of great value and significance to research and excavate cultural resources and to design and develop corresponding online courses and online learning platforms.

With the increasing attention paid to excellent traditional culture, "intangible cultural heritage" continues to enter the campus and society. According to the age characteristics and personality characteristics of lifelong learners, this study designs and develops online courses of some Hunan operas (Baling Opera, Xiang Opera, Jinghe Opera) from the perspective of learners' interests and the characteristics of Hunan traditional opera culture's artistic inheritance. With the concept of "student-oriented" and "results-oriented" in OBE education concept, this paper studies some Hunan opera courses (Baling Opera, Xiang Opera, Jinghe Opera), and fully demonstrates the advantages of online courses and the characteristics of Hunan opera culture. The design of the online learning platform is not only a favorable opportunity for the inheritance and protection of traditional culture, but also brings new vitality to the lifelong learning course. The rich cultural and artistic value contained in the traditional culture itself is transformed into music teaching resources, so that it can be displayed on the network platform, which brings a broad space for the living inheritance of excellent traditional culture.

You are free to decide whether or not to take part in this study, but if you decide to take part, the researcher will ask you to answer the questionnaire and divide it into two parts. The first part is about 3 questions about personal information, and the second part is about 11 questions about the current teaching mode and social needs of Hunan Baling Opera, Jinghe Opera and Hunan Opera. It takes about 10 minutes to answer the questionnaire, and the questionnaire star backstage collects information.

The researchers hope to discuss this issue in focus interview task groups :1. What are the factors affecting the teaching effect of Hunan Baling Opera, Jinghe Opera and Hunan Opera? How to more accurately customize the courses of Hunan Baling Opera, Jinghe Opera and Hunan Opera to meet the specific needs of establishing a lifelong learning platform? How to improve the teaching methods of Hunan Baling Opera, Jinghe Opera and Hunan Opera to achieve excellent learning results?

This study shows that the interview takes about 30 minutes, is located conveniently for you and is in a bright, spacious, enclosed office environment to ensure the protection of your privacy. At your convenience, there will be no audio, video or video recording during the whole process of the questionnaire and interview. If the researchers need more information, we will obtain your consent and arrange an interview for you at a time and date convenient to you. If you do not wish to use your real name, you may use a pseudonym if you do not wish to undergo additional interviews. The researchers will only use the information obtained from this interview for research purposes. The research results of your interviews and questionnaires will be published publicly in the academic research journal, and your contributions in the research will be publicly mentioned by the researcher (if you do not want your personal information to be publicly mentioned, the researcher will protect your personal information when

mentioning your contributions). Approximately 3 pre-appointments are required to participate in a group discussion with other participants, including 12 people.

You have the right not to answer questions if you feel uneasiness or uncomfortable due to some questions. You have the right to withdraw from this study at any time without prior notice, and your refusal to participate or withdrawal from this study will not in any way affect your study and work.

The information we collect from you will be kept in a secure place and will not be disclosed to the public. The results of the study will only be reported in general terms. This information will be in an anonymous form and will not be identified or contacted. There may be groups who may request access to your personal information for the purpose of checking the accuracy of data and research procedures, including research ethics committees, research coordinators, research supervisors, and officials of governmental agencies or organizations responsible for inspections. Data will be destroyed by the researcher upon completion of the research investigation.

You will not be compensated for your participation in this study, nor will you be charged any fees.

If you have any questions about this study, please feel free to contact us at 542859649@qq.com.

If you have been subjected to unspecified treatment or would like to know your rights in participating in this study, you can contact the Chair of the Human Research Ethics Committee at the Ethics and Research Standards Division, Srinakharinwirot University, 17th floor of the Innovation Building, Prof. Dr. Saroj Buasri, Khon Kaen North Sub-district, 23 Sukhumvit Rd. 114 Wanthana District, Bangkok Tel 02-6495000 ext. 17501, 17505 Fax 02-2042590 E-mail [swuec@g.swu.ac.th](mailto:swuec@g.swu.ac.th), in accordance with the International Ethical Standards for Human Research to protect to ensure your rights, safety and well-being.

Thank you very much.



### Informed Consent Form

I [Ms./Miss/Mr.] ..... have read and understood/listened to the information from [the name of the person requesting consent/principal investigator] about volunteering to participate in the research study on "Research Title" with the following explanatory message, including detailed information about the purpose of the study, detailed information about the steps I need to take and accept, the benefits I will get from participating in the study, the potential risks of my participation in the study, and guidelines to prevent such risks. I have read/listened to the explanations in the participant information sheet and received the researcher's answer to this question and have had enough time to decide whether to participate in the study.

In addition, I was assured by the researcher that my information would be securely protected and that no personal names or personal information would be released to the public. The results of this study are presented as a whole and summarized for academic purposes only. [If this is a qualitative study, please use a statement such as " In addition, the researcher has certified that my information will be securely protected. If I am to be cited in research/papers and other forms of reporting of scholarly work, the researcher will use a pseudonym instead of my real name and will not provide any other information that may be associated with me"] [If the researcher wishes to retain this information for future use, please provide the information in this section. A form will be created to provide volunteers with the option to "agree" or "disagree" to the storage of their data.]

"I voluntarily participate in this research study as a volunteer", and I can withdraw from the study at any time and unconditionally if I wish. I have been confirmed that there will be no future repercussions or loss of rights in .... [Specify statements consistent with the study].

I sign this document because I understand the contents of this information sheet and agree to volunteer.

The researcher solemnly stated that your privacy will be protected during the interview and questionnaire filling process, and no audio, video or video recording will be made. If you authorize us to record, videotape or film interviews and questionnaires, please explicitly select the agree and disagree options below.

For the recording, video and video shooting in the interview and questionnaire filling process:

- ☐ I agree.  
☐ I don't agree

Version 2 Date 11 September 2024



Participant signature \_\_\_\_\_ Date \_\_\_\_\_  
( \_\_\_\_\_ )

(In case the participants are unable to read but able to understand)

I was unable to read it, but the researcher read the contents of this consent form to me until I fully understood it. I therefore voluntarily affix my fingerprints on this consent form.

Fingerprint of  
participant



Date \_\_\_\_\_

( \_\_\_\_\_ )

Signature of person  
requesting consent

\_\_\_\_\_ Date \_\_\_\_\_  
( \_\_\_\_\_ )

Signature of the principal  
investigator

\_\_\_\_\_ Date \_\_\_\_\_  
( \_\_\_\_\_ )

**Note: If the volunteer is an older child under the age of 18, they can make their own decisions. Please sign the name of the volunteer (child) and the parent.**

Witness testimony from witness who has no conflict of interest in the study (only if the volunteer is unable to read but can listen to the explanation)

I have participated in the procedure and confirm that the person requesting consent has read/explained the information document to \_\_\_\_\_ where the said person has had the opportunity to ask various questions and freely decide to participate in the study after being informed of the available information shown in this document.

Witness signature \_\_\_\_\_ Date \_\_\_\_\_  
( \_\_\_\_\_ )

Version 2 Date 11 September 2024



**Instruction (Please delete this box after finished)**

This is the template for preparing Participant Information Sheet and Consent Form for submitting to ethics committee. Please clearly provide information relevant to your study. The language should be as non-technical as practical and should be understandable to the participant.

Black font is the part of format, **DO NOT DELETE**.

Red font is the part of the instruction. Include only what is appropriate for the study in black. Be sure to **DELETE** if it does not apply.







AF19-03-03.1  
August, 2023

## หนังสือรับรองจริยธรรมการวิจัยในมนุษย์

หนังสือฉบับนี้ให้ไว้เพื่อแสดงว่า

**ชื่อโครงการวิจัย :** การพัฒนาศูนย์เรียนรู้มรดกทางวัฒนธรรมที่จับต้องไม่ได้ออนไลน์เพื่อการเรียนรู้ตลอดชีวิต

**ชื่อหัวหน้าโครงการวิจัย :** นางสาว dan xie

**หน่วยงานต้นสังกัด :** คณะศิลปกรรมศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ

**หมายเลขรับรองโครงการวิจัย :** SWUEC-672521

**รายการเอกสารที่รับรอง :**

- |   |                                     |
|---|-------------------------------------|
| 1. แบบเสนอเพื่อขอรับการพิจารณา                | ฉบับที่ 2 ลงวันที่ 11 กันยายน 2567  |
| 2. โครงการวิจัยฉบับสมบูรณ์                    | ฉบับที่ 1 ลงวันที่ 27 มิถุนายน 2567 |
| 3. เอกสารข้อมูลและขอความยินยอมสำหรับอาสาสมัคร | ฉบับที่ 2 ลงวันที่ 11 กันยายน 2567  |
| 4. เครื่องมือที่ใช้ในการวิจัย                 | ฉบับที่ 2 ลงวันที่ 11 กันยายน 2567  |
| 5. ประวัติผู้วิจัย                            |                                     |

ได้ผ่านการรับรองจากคณะกรรมการจริยธรรมสำหรับพิจารณาโครงการวิจัยในมนุษย์ มหาวิทยาลัยศรีนครินทรวิโรฒ โดยยึดหลักเกณฑ์ตาม Declaration of Helsinki, Belmont Report, International Conference on Harmonization in Good Clinical Practice (ICH-GCP), International Guidelines for Human Research ตลอดจนกฎหมาย ข้อบังคับและข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการวิจัยตามโครงการวิจัยนี้ได้

**วันที่รับรอง :** 10 ตุลาคม 2567

**วันที่หมดอายุ :** 9 ตุลาคม 2568

(ลงชื่อ).....  
(รองศาสตราจารย์ ดร.สิทธิพงศ์ วัฒนานนท์สกุล)

ประธานคณะกรรมการจริยธรรมสำหรับพิจารณาโครงการวิจัยที่ทำในมนุษย์

ชุดสังคมศาสตร์และพฤติกรรมศาสตร์ (ชุดที่ 2)

มหาวิทยาลัยศรีนครินทรวิโรฒ

หน่วยจริยธรรมและมาตรฐานการวิจัย

มหาวิทยาลัยศรีนครินทรวิโรฒ

อาคารนวัตกรรม ศ.ดร.สาโรช บัวศรี ชั้น 17

โทร. (02) 6495000 ต่อ 17503, 17506 โทรสาร (02) 2042590

Appendix 8







After logging in, enter the course list page

This platform mainly showcases 12 courses to be learned, including appreciation and learning of Yueyang Baling Opera vocal segments, Hunan Jinghe Opera vocal segments, Hunan Opera vocal segments, Yueyang Baling Opera language, Hunan Jinghe Opera language features, Hunan Opera language features, Yueyang Baling Opera historical origins, Hunan Jinghe Opera historical origins, Hunan Opera historical origins, opera accompaniment knowledge, opera costumes, and opera makeup


Students can choose according to the courses they want to learn

首页 课程 关于

登录


首页 > 课程

课程




戏曲课程


课程




岳阳巴陵戏唱段欣赏与学习




湖南荆河戏唱段欣赏与学习




湘剧唱段欣赏与学习




岳阳巴陵戏语言




湖南荆河戏语言特征




湘剧语言特征




岳阳巴陵戏历史渊源




湖南荆河戏历史渊源



湘剧历史渊源



戏曲伴奏知识



戏曲服饰



戏曲妆容

↑

[首页](#)
[课程](#)
[关于](#)

[登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 岳阳巴陵戏唱段欣赏与学习



**授课教师:**  
刘凤林、屈力

**课程介绍**

巴陵戏，湖南岳阳地方传统戏剧，国家级非物质文化遗产之一。巴陵戏，源自巴通戏，民间习称之为岳州腔。1954年经正式定名为巴陵戏。巴陵戏渊源于明代中叶年间传入湖南，经清代乾隆年间，巴陵戏吸收当地民间艺术因素，以唱腔为主，兼重武打，形成一个小剧种。巴陵戏是一个极为稳定的戏曲声腔系统。巴陵戏内有许多取材于历史演义和活本，以及民间传说、军事斗争题材为主。是研究中国戏曲声腔和地域剧种成因，发掘宝贵史料。2006年5月20日，巴陵戏经中华人民共和国国务院批准列入第一批国家级非物质文化遗产名录。编号IV-34。




**联系方式**

周一至周五 早上9:00至中午11:30 下午13:30至18:00可以联系平台人员，其他时间咨询在线客服平台

意见

### 交流反馈



**TEST1**  
Student

测试方法反馈

57



**TEST2**  
Student

留言test111

57

**发表评论**

提交

## Appreciation and Learning of Yueyang Baling Opera Chorus

Step 1: Students can learn about Baling opera by watching classic singing videos.

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

首页课程关于

登录

首页 > 课程 > 课程详情

湖南荆河戏唱段欣赏与学习

授课教师:

皮明立、朱婷婷

课程介绍

荆河戏是中国湖南省岳阳县地方传统戏剧，也是国家级非物质文化遗产之一。以下是关于荆河戏的一些介绍：

历史沿革:

荆河戏起源于明朝永乐年间，因流传于长江荆河段而得名。历史上曾有上河班子、大班子、大台线等名称。抗日战争期间又被称作楚剧、汉剧、湖南。1954年正式定名为荆河戏。明末清初豪客班班主自成军来到岳州，艺人们四处流浪，到清代初年基本完成了楚调与秦腔的“南北结合”，形成荆河戏弹腔的“南北路”，荆河戏基本成型。

经典剧目:

荆河戏是融合了秦腔、昆腔、弹腔（南北路）、杂腔小调的多声腔剧种，它吸收了大雁荆河戏的劳动、生活腔调的素材，因此声腔高亢激昂，优美婉转。荆河戏个别唱段甚至还保留保留着秦腔和昆曲的声腔。

艺术特色:

荆河戏的传统剧目较为丰富，保存下来的有五百多出，其中包括整本戏四百五十多出，散折戏六十多出。这些剧目基本出于元明杂剧传奇、章回小说、民间故事。代表性剧目包括《白子图》、《楚宫抗等》、《大回荆州》、《双射马》、《折三友》、《沙渡会》、《原班山》、《反武科》、《秦雪梅》、《三娘教子》等。

表演形式:

荆河戏的角色行当分生、小生、旦、老旦、花旦、丑六行。表演讲究内、外八块功夫。“内八块”功夫指人物的喜、怒、乐、悲、惊、疑、醉等内心情感，“外八块”功夫指云手、站桩、圆腿、放腿、片马、箭步、摆裆、下盘等八种外部形体程式动作。

伴奏乐器:

荆河戏的伴奏乐器包括笛、武两种场笛，文场笛有笛、月琴、三弦、唢呐、笛子等，武场笛笛包括笙、大鼓、小鼓、马锣、头鼓、二鼓等。荆河戏以其独特的艺术风格和高雅的文化底蕴，成为中国戏曲宝库中的瑰宝。

联系方式

周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解答问题和反馈平台意见

交流反馈

TEST1

Student

测试留言反馈

TEST2

Student

留言test111

发表评论

提交

Appreciation and Learning of Hunan Jinghe Opera Chorus

Step 1: Students can learn about Jinghe Opera by watching classic singing videos.

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.



[首页](#)
[课程](#)
[关于](#)
[登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 湘剧唱段欣赏与学习

### 剧情介绍:

蔡伯喈中状元后，相  
蔡相府为婿。花朝喜酒  
府内老仆，不禁思念自己  
的双亲。

**授课教师:**  
曹文英、陈燕、陈艺

**课程介绍**  
湘剧是湖南地区的传统戏曲剧种之一，主要流行于长沙、湘潭一带，被称为“长沙湘剧”。湘剧起源于明代的  
弋腔，后来吸收了昆腔、皮黄等声腔，形成了包括高腔、低牌子、腔腔、乱弹等多种腔种。

**湘剧的历史起源:**  
湘剧是在承袭元代表演杂剧的基础上，经过本地民间艺术、地方戏曲与外来戏曲的相互融合而形成的。早期  
在民间被称为“大地腔子”、“汉调腔子”或“长沙腔子”，名称最早见于1942年长沙发行的《湘剧研究》  
第一期。

**湘剧的艺术特色:**  
湘剧的角色行当包括生、旦、净、丑四行，各个行当又有若干分支，具有独特的技艺。湘剧的表演程式严  
谨，服饰和道具具有浓厚的湖南地方特色。湘剧的剧目丰富，传统剧目有《琵琶记》《白蛇记》《拜  
月记》等。

**湘剧的地理分布:**  
湘剧主要流行于长沙、湘潭、衡州等地，以及湖南的其他部分，如耒阳、邵阳、益阳等地。此外，湘剧还流传到江西  
与湖南毗邻的岳阳以及广东韶州地区。

**湘剧的地位和影响:**  
2006年，湘剧被列入第一批国家级非物质文化遗产名录，2008年被列入国家非物质文化遗产名录。湘剧与  
川剧、豫剧、京剧等享有同等声誉和影响力，是地方大戏。

**联系方式**  
周一至周五 早上9:00到下午11:30 下午11:30到18:00可以联系平台人员，找老师解答问题和反馈平台  
意见。

**交流反馈**

TEST1  
Student

测试留言反馈

TEST2  
Student

留言test111

**发表评论**

提交

## Appreciation and Learning of Xiang Opera Lyrics

Step 1: Students can learn about Hunan Opera by watching classic singing videos.

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

首页

课程

关于

登录

首页 > 课程 > 课程详情

岳阳巴陵戏语言

授课教师:

刘茂林、周力

课程介绍

巴陵戏，原称“巴湘戏”，因艺人多出自古巴陵、湘阴和临湘之故。由于形成和流行的主要区域是岳州府，故而又叫“岳州班”、“岳阳班”。1952年，以岳阳古称巴陵郡，始定剧种名“巴陵戏”。巴陵戏是由昆腔的地方化而形成于明末清初，风格朴实粗犷，雅俗共赏。主要流行于今岳阳市所辖各县（市），及湖北通城、崇阳、江西修水、铜鼓等县，是近400年来湘湖人民喜闻乐见的地方戏曲剧种之一。2006年，国务院将其列入首批国家级非物质文化遗产代表性保护项目。

巴陵戏用中州韵，湖广音结合湘北方言为其舞台语言。有昆腔和弹腔两种声腔及杂腔小调，以弹腔为主。昆腔源于明代盛行的昆山腔，现存用昆腔演唱的剧目有《天官赐福》《六国封相》等七个。另有一些剧目由于文词典雅，节奏缓慢而改唱弹腔。大量的曲牌则用于演出排场之中。弹腔是巴陵戏的主要声腔。属皮黄腔系，习称“南北路”。“南路（二黄）”源于安徽徽调，“北路（西皮）”源自西秦腔与北曲。唱腔板式与其他皮黄剧种基本相同，但也有不少独具特色的腔调与板式，如西二黄、南转北、北改调、南拉北唱、南一字板等等。巴陵戏不仅对皮黄腔的形成与发展作出了重要贡献，而且被戏曲史家认定为影响汉剧形成的“重心”。1960年又创作了《巴陵离魂》。自清代嘉庆以来，巴陵戏即成为以弹腔为主的多声腔剧种。

巴陵戏有一套完整的表演程式，作为以歌舞表现故事、刻画人物的特殊手段。专业分工严格细致，各行演员多数要求唱、做、念、打全面发展。近代尤以武戏驰名湘鄂。表演程式丰富，素以“内、外八功”作为塑造人物的主要手段。“内八功”以“翻法”为绝种，虽然主要概括为“喜、怒、哀、乐、悲、愁、惊、愤”八种基本功夫，但是常用眼神有30多种，都能刻画人物内心精神状态，表达人物情感必需掌握的技巧。“外八功”：手、眼、口、身、腿、武、酒、扎。是外在身形和道具扎扮的运用。二者通过“浮沉吞吐”的调节，紧密结合，塑造人物。唱功强调“字是骨头腔是肉”，归字归韵，字正腔圆。道白注重口风、口劲和喷口。讲究吐字清晰，高低运送。专业分工，演员分生、旦、净三大行，每大行又分五小行，共十五个行当。

授课时间/方式

周一中午13:00到14:30、周四晚上21:00到22:30 线上上课

联系方式

周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解问题和反馈平台意见

交流反馈

TEST1  
Student

测试留言反馈

TEST2  
Student

留言test111

发表评论

提交

Language of Yueyang Baling Opera

Step 1: Students can learn about Baling Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

[首页](#)[课程](#)[关于](#)

登录

首页 > 课程 > 课程详情

湖南荆河戏语言特征



授课教师:

皮明立, 朱婷婷

课程介绍

荆河戏源于荆河戏起源于明初永乐年间。永乐二年(1404年), 湖北沙市已有荆河戏演出, 时称“楚调”。

洪武元年(1425年), 华阳王封藩来澧州, 随行带来私家戏班, 拥有几十个乐户及大量剧本, 经常在华阳王府演出。

万历四十二年(1615年), 袁中道曾看楚调《金钗》演出。

明末清初, 秦腔戏班随李自成军来到澧州, 艺人们四处流散, 到清代初年基本完成了楚调与秦腔的“南北结合”, 形成荆河戏弹腔的“南北路”, 荆河戏基本成型。

康熙四十二年(1703年), 顾彩在《寄美纪游》中提到的“常德楚调”, 就是当时流行于澧水一带的荆河戏。

清咸丰、同治时期(1851年-1874年), 在荆河戏的活动中心湖南澧州和湖北长沙市等地, 就有三泰、三元、泰寿、文化、同乐、长寿、同德等20多个班社从事专业演出活动。清末至辛亥革命以后的二十多年里, 又相继成立了30多个班社, 是荆河戏的昌盛时期。

咸丰至民国三十六年(1947年)间, 儋州名称的荆河戏班共创办了67起, 戏班共建立了52个。荆河戏早期以唱曲戏、会戏和平台戏为主。

辛亥革命以后, 部分城镇先后修建了戏院, 但除了少数荆河戏班进城驻院演出外, 大多数戏班仍长期在农村演唱。

抗日战争爆发后, 荆河戏受到极大的影响和摧残, 据不完全统计, 荆河戏只剩永乐、德武、松秀、同乐、新华等五个戏班。抗日战争期间荆河戏被叫作楚调、汉调、汉调。

1954年, 湖南省文化厅对全省民间职业剧团定点安排, 正式定名荆河戏。

中华人民共和国成立后, 荆河戏有了很大发展, 除原有的松秀、永乐、同德、德武、新华五个戏班, 分别在湖南津市、澧县、临澧、石门和湖北公安等县、市登记。由县、市具体领导外, 从1956年起至1982年止, 各县、市荆河戏班, 先后举办了十八期戏校和小演员训练班, 共培养青年演员七百多名。1979年7月, 常德地区戏剧学校成立荆河戏科, 招收男女学员三十五名, 从业人员由德武班除夕的二百多人增加到七百多人。1962年3月至1963年7月, 常德专员公署成立荆河戏遗产挖掘继承工作委员会, 挖掘记录荆河戏传统剧本二百七十八个, 以及全部弹腔音乐和部分曲牌音乐, 并分别油印成册。还两次组织荆河剧团青年演员八十多人, 请老艺人传授技艺, 学习继承了传统剧目《百花亭》、《桃林》、《芦花荡》等十七个。1982年5月, 湖南省文化局在常德举办常德汉调、荆河戏教学演出, 组织了省内四个荆河剧团的青年演员一百二十人, 向老艺人学习了传统表演艺术, 并在参加教学演出的二十四个剧目中, 选出《醉归》、《打路家》、《反武科》等九个剧目, 进行了录相。此外, 经过加工整理的传统戏《双喜马》, 新编古代故事剧《法场拜相》、《程咬金娶亲》、现代戏《柳暗花明》等九个剧目, 已分别出版剧本, 或由广播、电视台播放。

授课时间/方式

周四中午13:00到14:30、周一晚上21:00到22:30 线上上课

联系方式

周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员, 找老师解答问题和反馈平台意见

交流反馈



TEST1  
Student

测试留言反馈

55



TEST2  
Student

留言test111

55

发表评论

提交

↑

Language Characteristics of Jinghe Opera in Hunan Province

Step 1: Students can learn about Jinghe Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

[首页](#) [课程](#) [关于](#) [登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 湘剧语言特征



### 授课教师:

曹汝龙、周帆、陈艺

### 课程介绍

湘剧现有传统剧目682个，加上散折戏，多达1155个，其中弹腔剧目有500个以上，高、乱声腔的剧目占百分之九十八以上。高腔剧目近百个。新中国成立后，整理、改编、创作的剧目中，《琵琶上路》《打渔回书》《五台会兄》《拜月记》《追鱼记》《金丸记》《百花公主》《李三娘》《金印记》等传统剧目和《山花颂》《郭亮》《玛丽娜一世》等现代戏影响较大。

湘剧的传统剧目，不少出自宋末南戏、元代杂剧和明清传奇，也有少数系艺人创作和改编的剧目。高腔的“四大连台”和“六大记”，是演出时间最早，保留时间最长的代表性剧目。“四大连台”为《封神传》《目连传》《西游记》《精忠传》，每本可连台演出五至七日。“六大记”为《金印记》《投笔记》《白兔记》《拜月记》《荆钗记》《琵琶记》。乱弹的“八大连台”、“江湖十八本”和“三十六按院”，则是经常演出并为观众所熟悉的剧目。

湘剧传统剧目中有清代王船山创作的《龙舟会》和杨恩寿创作的《坦园六种曲》，其中《桂枝香》《再来人》两出为清代剧评家吴梅所推崇；《桃花源》《麻通驿》《理灵坡》三出取材于湖南地方的历史和民间传说，都有一定的社会影响。建国后，依靠老艺人和新文艺工作者的合作，对湘剧的丰富遗产进行挖掘、整理。上演剧目由两百多个增至四百多个，并及时抢救了行将失传的剧目三百二十多个。重点加工整理了《拜月记》《追鱼记》《捉火棍》《水牢记》《金丸记》《玉簪记》《黄飞虎反五关》《金沙浦》《六郎斩子》《百花公主》等六十多个剧本。《拜月记》《生死牌》拍摄成舞台艺术片。辛亥革命和抗日战争期间，曾经涌现出一大批宣传革命和抵抗侵略的创作剧目，最有代表性的是《刺恩铭》《广州血》《东北一角》《血溅沈阳城》和改编的《新金缘桥》《旅伴》等。中华人民共和国成立后，由增加了很多新的剧目，来源有：一、移植剧目，如《白毛女》《血泪仇》《陈三五娘》《生死牌》等；二、改编整理传统剧目，如《拜月记》《追鱼记》《百花公主》《金丸记》等；三、新编古装戏和现代戏剧目，如《文天祥》《巴蔓子》《回丁之歌》《郭亮》《湘潮》《金家三只凤》等。

### 授课时间/方式

周二中午13:00到14:30、周五晚上21:00到22:30 线上上课

### 联系方式

周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解答问题和反馈平台意见

## 交流反馈

**TEST1**  
Student

测试留言反馈



**TEST2**  
Student

留言test111



## 发表评论

提交

↑

## Language Features of Hunan Opera

Step 1: Students can learn about Hunan Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

[首页](#)
[课程](#)
[关于](#)

[登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 岳阳巴陵戏历史渊源



### 授课教师:

刘茂林、周力

### 课程介绍

湖南岳阳巴陵戏的历史渊源可以追溯到明代万历年间，当时昆腔传入湖南。明末清初，弋阳腔也流入湖南，对巴陵戏高腔的出现产生了较大影响。在清代乾隆年间，巴陵戏吸收了其他剧种的艺术因素，以唱弹腔为主，兼唱昆腔和杂腔小调，逐渐发展成一个较为稳定的戏曲声腔剧种。

巴陵戏原称“巴湘戏”，因艺人多出自巴陵、湘潭和临湘而得名。它因形成与主要活动区域在旧岳州府境内，故戏班又被称为“岳州班”。1953年正式定名为巴陵戏。

巴陵戏主要流行于湖南的岳阳、益阳、常德、湘西、长沙及邻近的湖北、江西部分地区。其现存传统剧目有三百七十多出，内容多取材于历史演义和话本，以反映历代政治、军事斗争题材为主，代表性剧目包括《打严嵩》、《九子鞭》、《夜梦冠带》、《崔子弑齐》、《打差算粮》、《张飞滚鞍》、《三审刺客》等。

巴陵戏的音乐分声腔和伴奏音乐两部分，声腔包括昆腔、弹腔和杂腔小调，弹腔分为南、北路，并有特殊的唱腔形式西二簧。其表演注重人物性格的刻画，有一套完整的传统表演程式，形成了粗犷朴实、细腻生动的艺术风格。巴陵戏的表演技巧丰富，包括“内八边”和“外八边”，特别注重眼神的运用，常用的眼神有正眼、斜眼、喜眼、怒眼等三十多种。

### 授课时间/方式

周三中午13:00到14:30、周二晚上21:00到22:30 线上上课

### 联系方式

周一至周五 早上9:00到中午11:30 下午13:30到16:00可以联系平台人员，找老师解答问题和反馈平台意见

## 交流反馈



**TEST1**  
 Student

测试留言反馈





**TEST2**  
 Student

留言test111



## 发表评论

[提交](#)



## The Historical Origins of Yueyang Baling Opera

Step 1: Students can learn about Baling Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

[首页](#) [课程](#) [关于](#) [登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 湖南荆河戏历史渊源



### 授课教师:

皮明立、朱婷婷

### 课程介绍

湖南荆河戏的历史渊源可以追溯到明初永乐年间，具体时间为1404年，当时湖北沙市已有荆河戏演出，时称“楚调”12。荆河戏起源于明初永乐年间，到清代初年基本完成了楚调与秦腔的“南北结合”，形成了荆河戏神腔的“南北腔”，至此荆河戏基本成型。

荆河戏在明末清初经历了重要的发展阶段。秦腔戏班随李自成军来到澧州，艺人们四处流散，最终在清代初年完成了楚调与秦腔的融合，形成了荆河戏的基本形态12。在清咸丰、同治时期（1851年~1874年），荆河戏在湖南省澧州和湖北省沙市区等地有多个班社从事专业演出活动，标志着荆河戏的昌盛时期。

荆河戏的角色行当分为生、小生、旦、老旦、花脸、丑六行。生行包括老生、杂生、正生和红生；小生分为紫金冠戏、二龙叉戏等；旦角有正旦、闺门旦、花旦等；花脸有大花脸、毛头花脸等；丑角则包括小花脸和老旦4。荆河戏保存下来的剧目有500多出，舞台语言以荆州口语或澧州官话为主，唱腔具有高昂、响亮、气势宏大的特色。

荆河戏在2006年被列入第一批国家级非物质文化遗产名录，编号为Ⅳ-351。尽管抗日战争期间荆河戏受到严重影响，但在中华人民共和国成立后，荆河戏得到了很大的发展，并继续在农村和部分城镇演出2。目前，荆河戏仍在湖南省澧县等地流行，并继续传承和发展。

### 授课时间/方式

周五中午13:00到14:30、周二晚上21:00到22:30 线上上课

### 联系方式

周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解答问题和反馈平台意见

## 交流反馈

**TEST1**  
Student

测试留言反馈



**TEST2**  
Student

留言test111



## 发表评论

提交



The Historical Origins of Jinghe Opera in Hunan Province

Step 1: Students can learn about Jinghe Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course


Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

[首页](#) [课程](#) [关于](#) [登录](#)

[首页](#) > [课程](#) > [课程详情](#)

## 湘剧历史渊源



### 授课教师:

曹汝龙、周帆、陈艺

### 课程介绍

湘剧的历史渊源可以追溯到明代，源于江西弋阳腔，并在长沙等地逐渐形成和发展。

湘剧最初由明代弋阳腔传入湖南，并与长沙等地的民间音乐结合，逐渐形成了具有地方特色的戏曲形式。湘剧旧称“人戏”或“大戏”，因其使用长沙方言官话演唱，并以长沙为中心，主要流行于长沙府十二属州县，故又称长沙湘戏<sup>12</sup>。湘剧包括高腔、低牌子、昆腔和弹腔四种声腔，其中高腔是湘剧最具代表性的声腔之一，源于弋阳腔并吸收了青阳腔的演唱形式。

湘剧的表演风格多样，既有粗犷、奔放的风格，也有委婉、清丽的风格。其剧目丰富，传统剧目大多源自宋朝戏曲。元代杂剧和明清传奇。湘剧的表演依其扮演不同类型的人物分为12个行当，包括大锣、二锣、唱工、小生、大花脸、二花脸、三花脸、紫脸、正旦、做工旦、乔旦和婆旦等。

湘剧的音乐特色包括高腔和弹腔的唱腔，乐队由文武六人组成，打击乐器形制独特，尤以双鼓交击为特色。高腔的唱念用中州韵结合长沙方言六声字调，形成独特的直区对比和行腔特色<sup>2</sup>。湘剧的传统剧目如《琵琶记》、《白兔记》和《拜月记》等，与民间艺术和地方语言巧妙结合，富有湖南民间地方特色<sup>1</sup>。


### 授课时间/方式

周三中午13:00到14:30、周一晚上21:00到22:30 线上上课


### 联系方式


周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解答问题和反馈平台意见

## 交流反馈


**TEST1**  
Student

测试留言反馈




**TEST2**  
Student

留言test111



## 发表评论

提交



## The Historical Origins of Hunan Opera

Step 1: Students can learn about Hunan Opera through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

课程

课程

关于

课程

课程

课程

戏曲 > 课程 > 课程详情

戏曲伴奏知识

授课教师:

刘茂林 周力

课程介绍

电吹乐的伴奏知识。二黄为主。西皮兼一种比较明快、活泼的曲调。长于抒情、叙事、抒情、状物。板式有原板、慢板、快三眼、导板、回板、散板、反二、六、流水、快板。有对发及流水曲调之分。曲调悠扬婉转。唱腔有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

二黄：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

导板：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

回板：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

散板：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

反二：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

六：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

流水：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

快板：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

对发：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

流水曲调：一种腔调。反二黄腔。曲调有回龙腔、倒板、转调等。曲调有回龙腔、倒板、转调等。

交流反馈

TEST1

Student

测试反馈

TEST2

Student

留言test111

发表评论

提交

### Knowledge of opera accompaniment

Step 1: Students can learn about opera accompaniment knowledge through learning

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

### Step 4: Course Learning



Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.



[首页](#)
[课程](#)
[关于](#)
Hello, 用户

[首页](#)
[课程](#)
[课程详情](#)

## 戏曲服饰





**授课教师:**  
阿祥妹


**课程介绍**  
戏曲服装是经过长时期的实践, 改良后而形成现今传统程式化的形态。传统京剧的服装可分为: 蟒、铠、褶、帔、衣五种。粤剧服装在很大程度上是取材自京剧的, 它的分类有蟒、铠、褶子、开氍、官衣、帔及衣七种。其实与京剧分类并没有太大不同, 只是京剧将“开氍”归入“铠”类; 将“官衣”归入“衣”类而已。现试详细介绍各类粤剧戏服的特色。

**联系方式**  
周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员, 找老师解答问题和反馈平台意见

### 交流反馈


**TEST1**  
Student

测试留言反馈


**TEST2**  
Student

留言test111

### 发表评论

提交

↑

### Opera costume course page

Step 1: Play a video to help students understand the costume characteristics of traditional Chinese opera.

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning


Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.

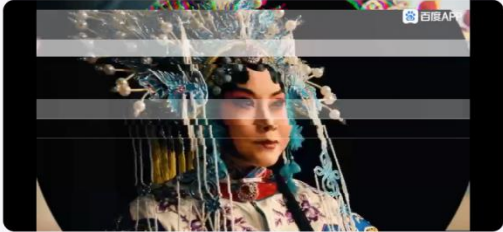
[首页](#)
[课程](#)
[关于](#)

Hello, 用户

[首页](#) > [课程](#) > [课程详情](#)

戏曲妆容





授课教师:

钟琨


课程介绍

戏曲妆容的历史可以追溯到唐宋时期，当时主要以“涂灰抹粉”和面具并用。到了元明时期，妆容开始分角色行当，净角有了简单脸谱，旦角则用头帕包头以掩饰男性特征。清乾隆年间，著名秦腔演员魏长生对旦角化妆进行了创新，使用了榆树刨花刻的人字形水鬓和模仿妇女发髻的质子。20世纪20年代，旦角妆容变得更加鲜艳。30年代，京剧的化妆风格和化妆品被引入陕西，进一步丰富了秦腔的妆容。50年代中期，秦腔开始吸收话剧、歌剧的化妆方法，使用油彩化妆。80年代后，随着舞台灯光技术的发展，柔和的生活淡妆逐渐取代了强烈的对比色化妆。

联系方式


周一至周五 早上9:00到中午11:30 下午13:30到18:00可以联系平台人员，找老师解答问题和反馈平台意见


交流反馈



**TEST1**  
Student


测试留言反馈






**TEST2**  
Student

留言test111



发表评论

提交



## Opera Makeup Course Page

Step 1: Play a video to help students understand the characteristics of traditional Chinese opera makeup.

Step 2: Introduced the teaching teacher of this course.

Step 3: Introduced the learning methods and course introduction of this course

Step 4: Course Learning

Step 5: After the course is completed, the teacher assigns homework and students submit their assignments or feedback information.



## About page

1. Definition and classification of traditional Chinese opera
2. Historical background and development process
3. Regarding the person in charge of the platform

VITA

