Transactions on Comparative Education (2024)
Clausius Scientific Press, Canada

DOI: 10.23977/trance.2024.060401
ISSN 2523-5818 Vol. 6 Num. 4

Exploration of Diversified Teaching Reform in the Course of Chinese Architecture History in Applied Universities

Yuxuan Dai[1,a,*]

[1]*School of Intelligent Science and Engineering, Xi'an Peihua University, Xi'an, Shaanxi, 710125, China*
[a]*smzyztdyx@163.com*
[*]*Corresponding author*

Keywords: Applied Universities, Chinese Architectural History, Curriculum Diversification, Teaching Reform

Abstract: Applied universities are important bases for cultivating practical talents. With the progress of the times and the rapid growth of society, their teaching reform has become an important issue in the field of education today. Chinese architectural history, as an important component of traditional Chinese culture, not only relates to students' understanding of history and culture, but also affects their future practice and innovation in related fields. This article explores the diversified teaching reform of Chinese architectural history courses in applied universities, and constructs a diversified teaching platform for Chinese architectural history courses, aiming to stimulate students' interest in learning and improve learning effectiveness. The design of this platform will inject new vitality into teaching reform and provide students with a broader learning space. Finally, through empirical research and effect analysis, the data fluctuated in different historical periods. The curriculum coverage percentages were highest in the Tang and Ming dynasties, at 90% and 95% respectively, while the data for the Song dynasty was slightly lower at 75%.

1. Introduction

With the increasing demand for applied talents in society, the teaching reform of applied universities has become particularly important. As an important professional course, the teaching reform of Chinese architectural history has also received much attention. However, the current teaching of Chinese architectural history courses generally faces problems such as single teaching methods, lack of teaching resources, and unreasonable teaching evaluations, leading to poor learning interest and effectiveness among students. Therefore, this article aims to explore the diversified teaching reform of Chinese architectural history courses in order to improve teaching quality and effectiveness.

This article proposes a teaching philosophy of "student-centered and practice oriented", emphasizing the subjectivity and practicality of students, and emphasizing the cultivation of their independent learning and innovation abilities. This article integrates diverse teaching resources and methods, breaks traditional models, and makes teaching content more diverse and teaching methods more flexible and diverse. By strengthening practical teaching, students can gain a deeper

understanding of traditional Chinese architectural culture, master relevant skills and methods, and thus improve their practical and innovative abilities. This article establishes a diversified curriculum evaluation system to comprehensively evaluate students' learning outcomes and ability levels, which helps to objectively reflect their learning situation, provide targeted teaching feedback for teachers, and promote the continuous improvement of teaching quality.

The following are the contributions of this article: 1. By introducing diverse teaching methods, this article makes the previously dull historical knowledge lively and interesting, greatly enhancing students' interest and participation in learning; 2. this article strengthens practical application, cultivates comprehensive abilities, and through designing projects, enables students to learn and apply knowledge of Chinese architectural history in practice, cultivating their practical operation ability and comprehensive problem-solving ability; 3. the diversified teaching reform not only focuses on the basic knowledge of Chinese architectural history, but also introduces relevant content such as traditional Chinese culture and philosophical ideas, helping students fully understand the cultural connotation and historical value of Chinese architecture, enhancing their cultural confidence and national pride.

2. Related Work

Numerous scholars have invested their efforts in the field of architectural history teaching, exploring effective teaching methods and strategies to enhance student learning effectiveness and interest. They conducted in-depth research on the problems facing the current teaching of Chinese architectural history and proposed a series of innovative teaching reform measures. Scholars generally agree that there are difficulties in teaching Chinese architectural history, such as a single teaching method and a lack of teaching resources. They point out that traditional teaching methods focus on imparting knowledge, but overlook the urgency of cultivating students' active thinking and hands-on practical abilities. At the same time, the shortage of teaching resources also limits the breadth and depth of teaching content, making it difficult for students to obtain comprehensive knowledge during the learning process. Wang Y conducted a study on the application and growth of Shaanxi's local traditional culture in university art education, explored the methods of integrating local traditional culture into university art education, and discussed the growth trends and approaches of integration [1]. Feng L et al. conducted practice and exploration of Chinese red opera in university cultural and artistic education, studied the application and practice of this opera in university education, and summarized relevant experience [2]. Yuan J et al. investigated the exploration and practice of using virtual reality (VR) intelligent teaching mode in English courses at open universities in China [3]. Li Y et al. discussed the geographical characteristics and growth trends of cross-border higher education in China, and conducted in-depth analysis and exploration of related issues [4]. Pan L et al. explored exploratory leadership in promoting creative collaboration among teachers through a case study of an art college in China, and conducted a thematic analysis [5]. Dai Y et al. conducted an exploratory study on the teaching of Chinese architectural history courses based on multidimensional models, and discussed the methods and effects of this teaching exploration [6]. Ye S et al. investigated the exploration and practice of the training system for applied talents in economic management under the background of new humanities, and analyzed and summarized relevant issues [7]. Shiyong S et al. evaluated the impact of classroom teaching reform and virtual learning environment on education and analyzed relevant factors [8]. Levitt P et al. analyzed the application significance and practice of the concept of decolonization in art history and comparative literature classrooms [9]. Chen D et al. explored how the red resources of the North Sea can be integrated into the ideological and political education of landscape painting courses, and integrated relevant strategies and methods [10]. Although the above

research provides important theoretical support and reference for this article, there are still shortcomings. Further exploration and practice are needed for the specific implementation methods of teaching reform, as well as how to build an effective teaching platform. Therefore, based on previous research, this article further discusses the diversified teaching reform of the Chinese architectural history course and constructs a practical and feasible teaching platform. This evaluation system not only objectively reflects the learning situation of students, but also helps to stimulate their learning motivation and confidence.

3. Method

3.1 Teaching Reform

The teaching reform approach of the Chinese architectural history course can be elaborated from multiple dimensions. This article will explore the teaching content, teaching methods, teaching resources, and evaluation system separately.

(1) Reform of teaching content

The reform of teaching content focuses on updating and expanding the content [11-12]. With the deepening of research and new archaeological discoveries, the content of Chinese architectural history is also constantly being updated. Therefore, the teaching content should timely reflect new research results, incorporate the latest academic perspectives, architectural types, architectural styles, etc. into the curriculum, enrich the teaching content, and enable students to have a more comprehensive and in-depth understanding of Chinese architectural history. When discussing ancient architecture, the design concepts and technical means of modern architecture are introduced. Through comparative analysis, students can better understand the value of ancient architecture and the growth trend of modern architecture. Combining with contemporary social hot issues, the teaching of Chinese architectural history is closely linked to real life, improving students' learning interest and practical application ability.

(2) Reform of teaching methods

The reform of teaching methods adopts diversified teaching methods to stimulate students' interest and initiative in learning. Through case analysis, students can gain a deeper understanding of the historical background, cultural connotations, and design concepts of architecture [13-14]. Through group discussions, students can exchange and share learning experiences with each other, cultivating a spirit of teamwork. The teaching reform of applied universities usually involves course content, teaching methods, and student evaluation. In order to quantify the effectiveness of these reforms, each focuses on different evaluation dimensions. The basic formula for the effectiveness index of curriculum content reform is as follows:

$$CCEI = \frac{\Delta C_{new} - \Delta C_{old}}{\Delta C_{old}} \tag{1}$$

Among them, ΔC_{new} is the amount of change in the new course content, and ΔC_{old} is the amount of change in the old course content. This index measures the degree and effectiveness of curriculum content reform. The Student Participation Improvement Index (SPEI) is as follows:

$$SPEI = \frac{S_{reform} - S_{pre-reform}}{S_{pre-reform}} \tag{2}$$

S_{reform} is the student participation after the teaching reform, and $S_{pre-reform}$ is the student

participation before the teaching reform, measuring the impact of teaching reform on student participation. The comprehensive evaluation index of teaching effectiveness is:

$$TECEI = \omega_1 \cdot ECI + \omega_2 \cdot TTI + \omega_3 \cdot AAI \tag{3}$$

ECI is the curriculum content index, TTI is the teaching method index, AAI is the student evaluation and feedback index, and w_1, w_2, w_3 are their respective weights. By using modern teaching methods, teaching effectiveness can be improved [15-16]. Multimedia teaching can showcase the image and characteristics of buildings through images, videos, and other forms, enabling students to have a more intuitive understanding of the history and current situation of buildings; online teaching can break through the limitations of time and space, provide students with more convenient learning methods, and also utilize online platforms for online communication and Q&A.

(3) Reform of teaching resources

The reform of teaching resources strengthens the integration and utilization of teaching resources both inside and outside the school. On campus, a teaching resource library of Chinese architectural history can be established to provide students with rich learning materials; outside of school, cooperation with museums, ancient architectural protection units, and other institutions can be carried out to carry out practical teaching activities, providing students with the opportunity to personally experience and understand ancient architecture, actively utilizing information technology to build a teaching platform for Chinese architectural history. Through the teaching platform, students can learn anytime, anywhere, and also engage in online communication and discussion with teachers and classmates. The teaching platform can also provide rich learning resources and interactive functions [17-18].

(4) Reform of evaluation system

The reform of the evaluation system is an important part of teaching reform. The traditional evaluation system often focuses too much on exam results, neglecting the learning process and practical application ability of students. Therefore, a diversified evaluation system should be established. Daily grades can reflect students' learning attitude and participation level, homework grades can reflect students' mastery and application ability of knowledge, and exam scores can reflect students' understanding and grasp of the overall course content [19-20]. Teachers can understand the learning situation of students through the evaluation results, adjust teaching strategies and methods in a timely manner, and students can also understand their shortcomings through the evaluation results, and adjust their learning methods and attitudes in a timely manner. Through the feedback effect of evaluation, promoting positive interaction between teachers and students, and improve teaching and learning outcomes.

3.2 Diversified Teaching Platform for Chinese Architectural History Courses

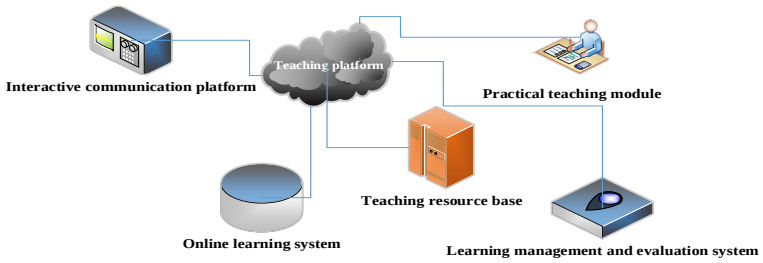

Figure 1: Diversified teaching platform for Chinese architecture history courses

The composition of the diversified teaching platform for the course of Chinese architectural

history (as shown in Figure 1) mainly includes the following key parts:

The teaching resource library covers a variety of teaching resources to meet the learning needs of different students and provide students with intuitive and vivid learning materials. At the same time, the teaching resource database is also updated regularly to reflect the latest research results and academic views, so as to ensure that students can access the latest knowledge of Chinese architectural history.

Online learning system provides students with convenient and flexible learning methods. Students can learn anytime and anywhere through the system, regardless of time and place. The online learning system supports a variety of learning modes, which can meet the learning styles and needs of different students. It has the functions of learning progress tracking and learning achievement display, which is convenient for students' self-management and learning effect evaluation.

Through this platform, students can ask questions, share learning experience, and have real-time discussions and answer questions with teachers and other students. The practical teaching module enables students to have a chance to personally contact and understand ancient architecture and deepen their understanding of architectural history by organizing field visits, simulation design and other activities. This interactive learning method helps to stimulate students' interest and initiative in learning, and promote the in-depth understanding and application of knowledge. At the same time, teachers can also understand students' learning situation and needs through the interactive communication platform, and adjust teaching strategies and methods in time. Through the growth of practical teaching module, students' practical operation ability and problem-solving ability can be effectively improved.

The learning management and evaluation system tracks and manages the whole learning process of students, makes a comprehensive evaluation according to the learning situation and performance of students, and provides feedback and guidance for teachers, so as to better adjust teaching strategies and methods. In order to verify the effectiveness of diversified teaching reform, this paper conducts empirical research and effect analysis. By comparing the data of academic performance and learning attitude between the experimental group and the control group, this paper found that the students' academic performance of the experimental group was significantly improved, and their learning interest and enthusiasm were also significantly improved.

4. Results and Discussion

4.1 Functional Testing Process of Teaching Platform

(1) Functional requirement analysis: In the functional requirement analysis stage, this article carefully reads the functional requirement document of the teaching platform, and deeply understands each functional point to confirm the correlation between the expected behavior of the function.

(2) Test Plan growth: When developing a test plan, clarifying the goals and scope of testing, determine the timing of testing, establish and configure the testing environment, and allocate testing related resources.

(3) Function point splitting: Splitting the various function points of the teaching platform into modules or pages. Each separated feature point should be able to be tested independently and have clear testing objectives.

(4) Use case design: During the use case design phase, this article considers multiple perspectives, such as normal, boundary, and abnormal situations. Table 1 shows the test cases for this article.

Table 1: Test case

	Traditional curriculum university	Application-oriented university
Ancient curriculum	12	13
Han dynasty	15	14
Tang dynasty	16	16
Song dynasty	14	15
Yuan dynasty	16	16
The Ming dynasty	17	14
The Qing dynasty	14	16
Modern	27	31

(5) Environment preparation: This article prepares a testing environment to ensure that it is consistent with the actual operating environment, in order to more accurately simulate user operations and service responses.

(6) Test data preparation: This article prepares legal data, illegal data, and data under boundary conditions.

(7) Test execution: During the test execution phase, this article executes the test tasks one by one according to the test plan and designed test cases, records the test results of each functional point, and provides a detailed description and record of the problems discovered during the testing process, reproducing the steps.

4.2 Analysis of the Effect of Diversified Teaching Reform

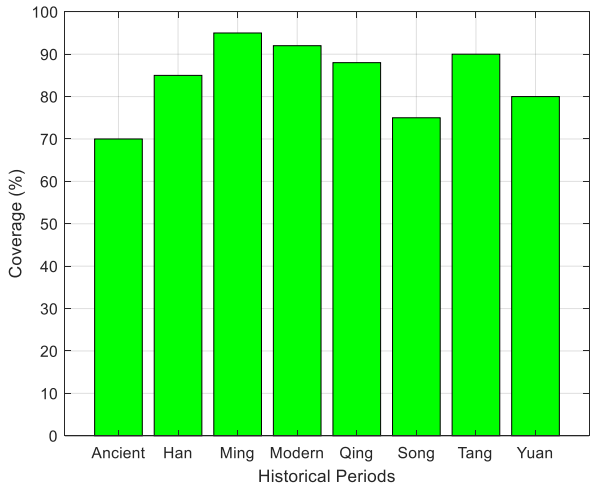

Figure 2: Course coverage analysis

In the diversified teaching reform, the diversity and innovation of teaching methods have a significant impact on student participation, and stimulate their learning interest and enthusiasm, making them more proactive in participating in curriculum learning. From the data in Figure 2, it can be seen that the course coverage of this system is as follows: 70% of ancient courses during the Spring and Autumn and Warring States periods; 85% in the Han Dynasty; 90% in the Tang Dynasty; 75% in the Song Dynasty; 80% in the Yuan Dynasty; 95% in the Ming Dynasty; 88% in the Qing Dynasty; 92% in Modern. From Figure 2, it can be seen that the data fluctuated in different historical periods. The curriculum coverage percentage in the Tang and Ming dynasties was the highest, at 90% and 95%, respectively, while the data for the Song dynasty was slightly lower, at

75%. This indicates that during these periods, architectural history courses placed greater emphasis on the content of the Tang and Ming dynasties. This change is driven by educational goals, historical importance, and the focus of academic research.

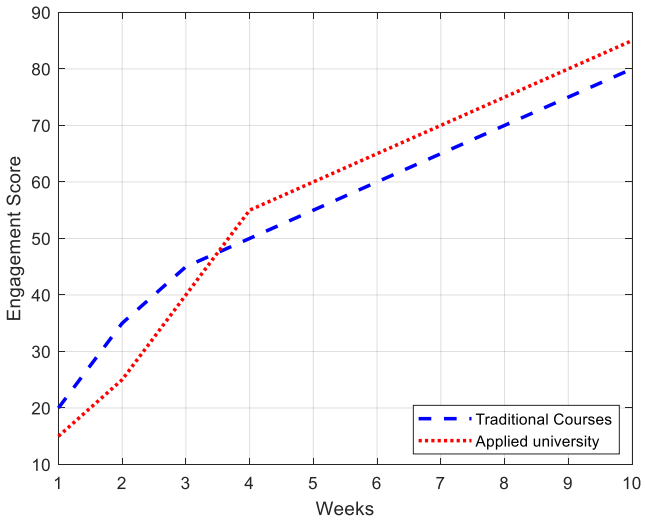

Figure 3: Analysis of student participation

By introducing cultural, artistic, social, and other aspects related to Chinese architectural history, the course is made more attractive and interesting. At the same time, combining current architectural practices and social hotspots, students can better understand the value and significance of Chinese architectural history in contemporary society, and thus actively participate in learning. According to the data in Figure 3, it can be seen that the participation scores of this traditional course are 20, 35, 45, 50, 55, 60, 65, 70, 75, and 80; the participation scores of applied universities are 15, 25, 40, 55, 60, 65, 70, 75, 80, 85. The score for traditional courses starts at 20 points and gradually increases to 80 points. The score for the application course starts at 15 points and eventually increases to 85 points. These changes indicate that as the course progresses, student engagement has increased in both teaching modes. The initial score of applied universities is lower than that of traditional courses, but ultimately exceeds that of traditional courses, indicating that applied universities are more effective in improving student engagement.

5. Conclusion

This article explores and practices the diversified teaching reform of Chinese architectural history curriculum, proposes innovative teaching reform measures, and constructs a diversified teaching platform. The effectiveness of teaching reform and the practicality of the platform have been verified through empirical research and effect analysis. However, there are still some shortcomings in this article. The depth and breadth of teaching reform need to be expanded, and the functions and user experience of teaching platforms also need to be continuously optimized. One is the disconnect between theory and practice. Although teaching reform emphasizes the application of diversified teaching methods, the combination of theory and practice is still not close enough in practical operation. Students have learned a large amount of theoretical knowledge in the classroom, but lack opportunities for on-site visits and practical operations, which hinders their ability to combine the knowledge they have learned with actual architecture and affects their in-depth understanding and application of the course content. The second reason is that student participation is not high. Although teaching reform advocates a student-centered teaching model, in actual teaching, student participation and enthusiasm are still limited. Some students are accustomed to the

traditional passive way of receiving knowledge and feel uncomfortable with new teaching methods such as classroom discussions and group cooperation, resulting in poor teaching effectiveness. Thirdly, the assessment method is single. The current assessment method for Chinese architectural history courses mainly relies on final exams and regular assignments, and this single assessment method is difficult to comprehensively evaluate the learning effectiveness and ability of students. At the same time, there is also a lack of assessment of students' practical and innovative abilities, which is not conducive to cultivating their comprehensive qualities. The future course of Chinese architectural history should focus on the design and implementation of practical teaching. By organizing on-site visits, practical operations, and other activities, students can personally experience the charm and characteristics of traditional Chinese architecture, deepen their understanding and application of course content. In terms of teaching methods, the application of diversified teaching modes should be further promoted, using case analysis, project driven and other methods to stimulate students' learning interest and enthusiasm. Modern information technology methods such as virtual reality and augmented reality should be used to provide students with a more intuitive and vivid learning experience.

Acknowledgement

This work was supported by Xi'an Peihua College 2023 Course Ideological and Political Education Reform Research Project (PHKCSZ202313).

References

[1] Wang Y. The Application and growth of Shaanxi's Local Traditional Culture in University Art Education. Education Reform and growth, 2023, 5(2): 6-12.
[2] Feng L, Damdindorj T. Practice and Exploration of Chinese Red Opera in University Culture and Art Education. Journal of Education and Educational Research, 2024, 7(1): 163-166.
[3] Yuan J, Liu Y, Han X, et al. Educational metaverse: An exploration and practice of VR wisdom teaching model in chinese open university english course. Interactive Technology and Smart Education, 2023, 20(3): 403-421.
[4] Li Y, Song C, Zhang X, et al. Exploring the geographies of transnational higher education in China. Geographical Research, 2024, 62(1): 165-180.
[5] Pan L, Songco E A. Exploration leadership that advancing creative collaboration for teachers: A thematic analysis of a case study in a college of fine arts in China. International Journal of Research in Business and Social Science (2147-4478), 2023, 12(7): 208-223.
[6] Dai Y. Exploration of Chinese Architectural History Course Teaching Based on Multi-Dimensional Model. Curriculum and Teaching Methodology, 2024, 7(2): 47-55.
[7] Ye S. Exploration and Practice of the Training System for Applied Talents in Economics and Management under the Background of New Liberal Arts. Asian Journal of Economics, Business and Accounting, 2023, 23(21): 1-8.
[8] Shiyong S. Examining the impact of classroom teaching reforms and virtual learning environments. American Journal of Creative Education, 2023, 6(2): 52-60.
[9] Levitt P, Saferstein E, Jaber R, et al. Decolonizing Decoloniality: Decentering Art History and Comparative Literature Classrooms Outside Europe and the United States. Comparative Education Review, 2023, 67(2): 277-297.
[10] Chen D. Discussion on the Integration of Beihai Red Resources into the Ideological and Political Teaching of Landscape Painting Course. Curriculum and Teaching Methodology, 2023, 6(22): 31-39.
[11] Yang P, Liu Y. Diversification of Higher Education as Policy Diffusion: The Rise of the Non-university Sector in China. Higher Education Policy, 2024, 37(1): 167-190.
[12] Ruan J, Cai Y, Stensaker B. University managers or institutional leaders? An exploration of top-level leadership in Chinese universities. Higher Education, 2024, 87(3): 703-719.
[13] Li Z. A study on the teaching reform of the course of teacher writing skills for teacher trainees in colleges and universities. Pacific International Journal, 2023, 6(4): 14-17.
[14] Lijun W, Wenjie W, aona S, et al. Exploration of the Mechanical Engineering Graduate Training Program: A Synergistic Approach Incorporating Three-in-one and Four-Dimensional Linkage Training Mechanism. South Asian Journal of Social Studies and Economics, 2023, 20(3): 279-288.
[15] Zuolong Zhao. Innovative exploration of traditional cultural elements in the teaching of cultural and creative

product design in colleges and universities. Advances in Vocational and Technical Education, 2023, 5(5): 62-69.
[16] Yu Y, Yan J, Lu Y, et al. Exploration and Research on Enhancing the Practical Ability of Graduate Students Majoring in Electronic Information under the Background of New Engineering. Open Access Library Journal, 2024, 11(1): 1-11.
[17] Qin Z, Ding M. Reflections on educational reform supporting build China into a world leader in science and technology. Engineering Education Review, 2024, 2(1): 19-27.
[18] Zhou B. Exploration and Research on Ideological and Political Thinking of Engineering Curriculum under the Background of New Engineering. The Educational Review, USA, 2023, 7(4): 536-539.
[19] Haidan C, Banchongsilpa O. The Musical" Courses Applied for Teaching the Popular Singing Major Students at 'an Conservatory of Music in Shaanxi Province of China. Journal of Modern Learning growth, 2023, 8(5): 342-352.
[20] Xu Q, Li S. Research on Red Culture Education on University Campuses in the New Era: Taking Universities in Sichuan as an Example. Journal of Social Science Humanities and Literature, 2023, 6(5): 74-80.