Study on Teaching Practice of Exorcism Mask Carving in New Engineering Environment

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Abstract: The wood carving of bashu witch nuo mask is an important part of Chinese traditional culture, and its teaching is an important part of the inheritance of traditional culture. However, under the background of new engineering, the traditional teaching of bashu witch nuo mask carving has been unable to meet the requirements of The Times and better complete the cultural inheritance, so it is urgent to change the teaching methods. This article in the new engineering environment, using the parameter optimization algorithm, it is concluded that the current bashu wu nuo masks woodcarving some problems existing in the teaching, under the background of new engineering should follow the standard of talents cultivation, the actual problem oriented, with application engineering and technology innovation as the center, give attention to two or morethings reform trend in the development of culture, by updating teaching ideas, enhance the consciousness of the new engineering construction; Reform teaching mode and strengthen ability orientation; The teaching reform of exorcism mask wood carving was carried out in three aspects: integrating engineering technology culture and improving teaching effectiveness. It makes the teaching of bashu witch nuo mask carving adapt to the new engineering environment, and to some extent provides guidance and reference for the later related research.

1. Introduction

The wood carving of bashu witch nuo mask is a regional culture with distinctive features, bright colors and full of vitality in the Chinese national culture. It is a distinct representative of traditional culture and occupies a very important position for its cultural inheritance [1]. At present, cultural economy has penetrated into all aspects of life, pointing out the direction of cultural inheritance and protection for social institutions, and providing more possibilities for school education, especially local design education [2-3]. The traditional training mode of traditional handicraft is no longer suitable for modern life. Traditional handicraft and product design education have been gradually combined. The wood carving of bashu witch nuo mask has also entered the teaching of schools, especially colleges and universities, which plays a very good role in the inheritance of our traditional culture. However, with the development of The Times, especially under the background of new engineering, the teaching of bashu witch nuo mask carving cannot meet the needs of the environment, and the teaching appears to be divorced from practical production and even economy [4]. Under the background of new engineering, the new round of scientific and technological revolution and industrial transformation make the world develop rapidly and the future is hard to predict. Only by changing the teaching method of bashu witch nuo mask wood carving can we deal with the current changes and future uncertainties. In view of this situation, it is of great significance to study the teaching practice of ba shu wu nuo mask carving in the new engineering environment [5-6].

At present, there are few studies on the teaching of exorcism mask carving of bashu witch. The current researches of scholars mainly focus on the combination of traditional cultural technology and industry, as well as the inheritance of traditional cultural technology in teaching, without taking into account the social background of new engineering [7]. Therefore, on the one hand, the teaching of exorcism mask carving has no general guiding significance. On the other hand, ignoring the

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current background of new engineering will cause the research results to fail to adapt to the development of The Times, which has great limitations to a certain extent [8-9].

To make up the blank in the research of this, this article on the basis of theoretical research of other scholars for reference, the bashu wu nuo masks woodcarving teaching practice in the new engineering environment, using parameter optimization algorithm, it is concluded that the current bashu wu nuo masks woodcarving some problems existing in the teaching, it is concluded that under the background of new engineering should follow the standard of talents cultivation, the actual problem oriented, with application engineering and technology innovation as the center, give attention to two or morethings reform trend in the development of culture [10]. On this basis, some Suggestions are put forward on the teaching practice of the wooden mask carving of bashu witch nuo. It is not only beneficial for the teaching of bashu witch nuo mask carving to better adapt to the new engineering environment and realize the inheritance of traditional culture and craft, but also provides reference value for future research.

2. Methods

2.1 Core Concepts

In general, what we call “a new engineering”, is based on the discipline definition and the division of an industry on the basis of, in view of the traditional engineering professional adjustment and change in Settings, and to promote the development of modern engineering, modern engineering and other fields of science communication, and promote operation applied strong science to the engineering direction outspread, etc. Only in this way can we keep up with the pace of The Times and cultivate compound high-quality engineering talents who can keep up with the development speed and demand of The Times. At present, the construction of new engineering has already developed into a major problem that must be solved urgently in the educational circle. Under the background of new engineering, education departments and university teachers should take students as the center and starting point to discuss and study how to promote the cultivation of engineering application-oriented high-quality talents, and how to coordinate the relationship between engineering education and the development of modern information technology and economic industry.

2.2 Parameter Optimization Algorithm

The optimization of teaching practice parameters of basshu witch nuo mask is realized by using the relatively mature particle swarm optimization algorithm and genetic algorithm in China. Considering that the two algorithms are widely used in China, their principles are not repeated. The two algorithms search and solve the optimization problem through the combination of the parameter sample sequence and the objective function. The following objective function is mainly set to solve the optimization problem of the parameters.

First, relative error (R) is selected to evaluate the simulation effect of the model during calibration and validation. The calculation formula is as follows:

$$R = \frac{R_S - R_0}{R_0} \times 100\% \quad (1)$$

In the formula, R -- the relative error between the teaching effect simulated by the teaching practice model of basshu witch nuo mask carving and the practice effect; RS -- the teaching effect simulated by the model; R0 -- the actual teaching effect. If the calculated R is positive, it means that the simulated teaching effect is larger than the measured teaching effect; if it is negative, it means that the simulated teaching effect is smaller than the measured teaching effect; if the calculated R value is 0, it means that the simulated teaching effect is consistent with the measured teaching effect.

NashSuttclife coefficient was applied to evaluate the coincidence between simulated practice effect of na shu witch mask carving and actual practice effect. The calculation formula for NashSuttclife coefficient was as follows:

$$E_{ns} = 1 - \frac{\sum_{i=1}^{n}(Q_0 - Q_S)}{\sum_{i=1}^{n}(Q_0 - Q_{avg})} \quad (2)$$

Where: Ens -- NashSuttclife coefficient; Q0 -- actual practical effect of bashu witch exorcism mask wood carving, QS -- simulated practical effect of bashu witch exorcism mask wood carving, Qavg -- average actual practical effect, N - the number of measured data, a deterministic coefficient between the range of 0 ~ 1, and the coefficient, the greater the average said simulation practice for greater effect use effect and the measured average practice, if the deterministic coefficient is negative, the said model to simulate the average practice effect is not to the accuracy of the measured average practice effect.

3. Experimental

Step1: sample extraction. In order to make a comparative analysis of the teaching effect of the traditional exorcism mask carving and reflect some problems in the teaching of the traditional exorcism mask carving, the samples are required to be hierarchical and have different levels and abilities.

Step2: calculation and evaluation of samples. The method of parameter optimization was used to calculate the sample, and the difference between the actual teaching effect and the simulated teaching effect of the sample, as well as the practical application effect and the simulated application effect were measured, and the data were recorded and sorted out. To find out some problems in the teaching of exorcism mask.

Step3: test the accuracy of sample results. After parameter optimization, in order to quantitatively analyze the influence of each parameter optimization algorithm on the simulation accuracy of teaching and practice effects, combined with specific samples to conduct the teaching and practice effect measurement of bashu witch nuo mask wood carving, evaluate the simulation accuracy of each optimization algorithm, and record the evaluation results. Finally, the paper puts forward relevant improvement measures on the obtained results.

4. Discuss

4.1 Analysis of Experimental Results

Through the analysis of the test results can be seen, the current bashu wu nuo masks woodcarving teaching exists many problems, R0 and Rs, Q0 and Qs between numerical difference is bigger, it fully illustrates the current teaching practice bashu wu nuo masks woodcarving did not achieve good effect, appear the situation of teaching and practice, is not in conformity with the “new engineering” under the background of teaching requirements, the need to take the time to improve. The specific values are shown in table 1. The values in the table are obtained on the basis of parameter optimization algorithm.

Table 1 Data Results Of Parameter Optimization Algorithm

Sample Number	R0	Rs	Error		Q0	QS	Error
001	12.36	11.32	-1.04		16.58	14.27	-2.31
002	15.89	14.26	-1.63		17.42	13.56	-3.86
003	8.72	7.45	-1.27		14.32	13.89	-0.43
004	9.61	8.21	-1.40		16.54	15.09	-1.45
005	16.56	15.96	-0.60		17.86	17.05	-0.81
*Data came from parameter optimization algorithm results							

4.2 Teaching Reform and Practice of Ba Shu Wu Nuo Mask Carving under the Background of New Engineering

(1) Update the teaching concept and strengthen the consciousness of new engineering construction

New engineering construction is not just a slogan, the key is to deepen the implementation of education and teaching reform, to improve the quality of engineering education personnel training. At present, the implementation of the new engineering concept is not in place, the teachers' awareness of new engineering construction is weak. So in bashu wu nuo masks woodcarving in the teaching process, teachers should first update teaching ideas, should be based on the quality of the core position, based on engineering, active learning engineering education requirements and engineering personnel training quality standard, docking industry industry, lead the future development, with students as the center of innovative, integrated, full cycle of engineering education concept of “new” to actively learn new engineering under the background of professional talents of the new requirements to woodcarving, strengthen the awareness of new engineering construction. The teaching and practice of wood carving of bashu witch nuo mask are deeply combined with the new engineering background to promote the connection with the wood carving industry.

(2) Change the teaching mode and strengthen the ability orientation

The teaching and practice of the traditional ba-shu witch exorcism mask carving are often related to individuals. The teaching direction is narrow, and the teaching of ba-shu witch exorcism mask carving is separated from practice. The teaching of ba-shu witch exorcism mask carving cannot realize the connection with related industries, and students' engineering application ability is weak. The author intends to take the inheritance and industrialization of bashu witch exorcism mask wood carving as the starting point to realize the industry management of bashu witch exorcism mask wood carving. At the same time, we should deepen the system and mechanism of industry-education integration, industry-study integration and school-enterprise cooperation, pay attention to the cultivation of innovation and entrepreneurship ability, strengthen the orientation of ability cultivation, and lay a foundation for the cultivation of applied, skilled and innovative talents in exorcism mask carving.

(3)Integrate wood carving engineering technology culture to improve teaching effectiveness

Engineering and technology are not only tools and means, but also the culture embodied in them can better reflect the “new” of engineering. A good engineering education culture is conducive to enhancing students' understanding of the importance of the major, enhancing their interest in learning, deepening their understanding of engineering and technical issues, and enhancing their innovation and entrepreneurship ability. The education culture of bashu nuo mask carving project is put into the classroom, practice and other teaching links.On the basis of this reform, the trend chart of teaching effect and practice effect of wood carving of ba shu wu nuo mask in the future can be obtained.

As shown in figure 1, the data is the general result obtained by referring to the above experimental data and combining with the parameter optimization formula.

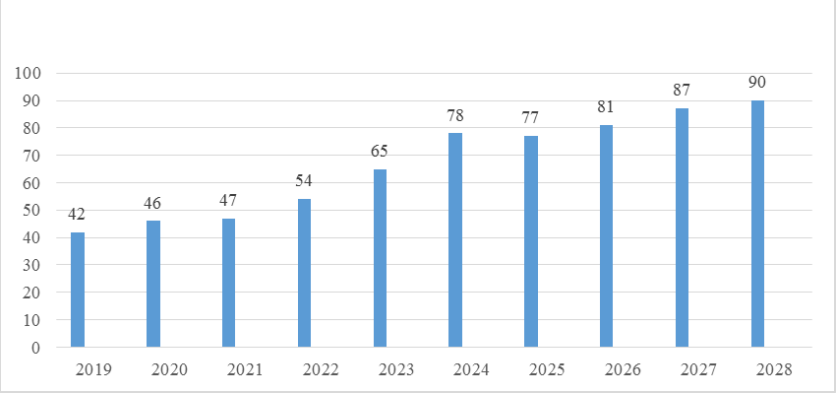

Fig.1 The Teaching Effect and Practice Effect of Wood Carving of Exorcism Mask in the Future Are Consistent with the Trend Chart

5. Conclusion

The new engineering background puts forward higher requirements for the teaching of bashu witch exorcism mask woodcarving. In order to make bashu witch exorcism mask woodcarving connect with industry and inherit our traditional culture better, we must reform its teaching and make it adapt to the development of The Times. In the process of reform, we must consider the new engineering background and strive to achieve the unity of teaching effect and practical application effect. The teaching reform of bashu nuo mask carving is a complicated systematic project, which involves the reform of course system, content, teaching method, assessment system, teaching conditions, etc.

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