

Research, Development and Practice of Primary School Problem-based Curriculum Based on Tianfu Culture

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Abstract: This article aims to combine the connotation of Tianfu culture with primary school problem-based learning based on Sichuan Tianfu culture, producing problem-based curriculum as the output. We explore problem-based curriculum development and practical methods based on primary education. It shows the distinctive and charming regional culture, representing the mutual respect and inclusiveness of Tianfu cultural bonds. It is also the innovative expression of the characteristic school-based curriculum of the elementary school.

Keywords: Tianfu culture; Problem-based learning; PBL; Primary school curriculum development

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1 Introduction

Sichuan has been known as the "land of abundance" since ancient times, with blessing everywhere. As the symbol of Sichuan's cultural image, the connotation of "Tianfu" should be enriched and developed with the growth of society. And it can adapt to the needs of contemporary education. "Tianfu" is a regional cultural image of Sichuan from now and then. It is unprecedentedly significant for education. The educator Tao Xingzhi once said: "We should bear the courage to explore the novel principles and enter the unexplored desert." Therefore, this study aims to start from the elementary school education, applying the problem-based learning (PBL) as the methods and output innovatively. We have developed a problem-based curriculum based on Tianfu Culture, exploring

the educational connotation, implementation and unique significance of the problem-based curriculum in a creative way.

2 The connotation of Tianfu culture

There is a saying in Yijing: "By observing the laws of heaven and earth, we can recognize the changes of time; by focusing on ethics, we can make people's behaviors in line with civilized etiquette." It is the origin of the concept of "culture". In the process of social and historical development of our country, the people concentrated on creating wealth physically and mentally.

Tianfu culture is rooted in Chinese culture, which is an important part of the national culture. As one of the essences of national culture, Tianfu culture was the abundant and unique local intelligence created by generations of ancestors, passing the knowledge long the history. It is preserved and recorded by them. Tianfu culture is the "living soul" of Tianfu people as well as the life code of characteristic culture. It carries the unique and rich imagination and cultural consciousness of Tianfu people, bearing unique meaning and value for the life and historical development of the people in our city. As descendants of Sichuan, the South-Western province in China, we should mainly study and actively explore the endless roots of this ethnic group. We should explore the long-lasting essence of traditional culture, experiencing the traditional culture with strong regional characteristics. We can personally experience that the Tianfu culture created by the great ancestors is enriched by the thoughts in new generation. It continues to be enriched and developed in the historical inheritance, embarking on a new journey

of innovative development and rejuvenation of our country.

3 Analysis of problem-based curriculum in primary school

3.1 Guidance of the directions, implementing the spirit of documents

Under the guidance of Basic Education Curriculum Reform Outline (Trial) ^[1], we should follow the law of educational development, exploiting human, material, cultural and other local educational resources. We should strengthen quality-oriented education, highlighting the development of culture connotation and characteristics. We should establish the basic education curriculum system in line with the requirements of quality-oriented education. We will make endeavors to explore a school-based curriculum system that harmoniously blends traditional and modern culture.

According to the spirit of the document National Medium and Long-term Educational Reform and Development Plan (2010-2020) ^[2], it is necessary to establish the concept of systematic training. It will promote the organic connection of elementary schools, middle schools, and universities. It also closely integrates teaching, research, and practice. Schools, families and society work closely together. We should develop multiple joint training methods like cooperation between schools, between schools and enterprises, between schools and scientific research institutions, and Sino-foreign cooperation. That is how we can form a talent training system that is open, witty and flexible, with connected channels and diverse choices. It is necessary to "make full use of social and educational resources, carrying out a variety of extracurricular activities, strengthening the construction of extracurricular activities in primary and secondary schools."

According to the practical principles of Opinions of 11 Departments including the Ministry of Education on Promoting the Research and Study Travel of Primary and Middle School Students ^[3], we should rely on Chengdu's rich cultural resources. We will guide students to expand their horizons, enrich knowledge, understand society, inherit Tianfu culture, and experience Tianfu's characteristic civilization. That is how we can promote the students to form a correct outlook on world, life, and values. They are

trained to become a socialist builder and successor with comprehensive development. (During the epidemic, this project will be adjusted to a research model such as online museums.)

3.2 The connotation of the problem-based curriculum

The primary school curriculum, designed with the support of problem-based learning, is mainly to advocate the primary school students as the main participants. In the premise of complying with their cognitive laws, they should research and explore actual problems, and propose solutions combined with disciplines. It mainly cultivates students' comprehensive ability to collect information, organize data, analyze contradictions and solve problems. That is how they can acquire new knowledge, the ability to communicate with others and teamwork in the process. Under the specific circumstances of problem-based learning, the emphasis is learner-centered to conduct exploration and practice by problem-based learning. It highlights the cultivation and use of competency (competency-based, performance-based), focusing on cultivating the following key core abilities, namely creativity, communication, collaboration, complex problem-solving and critical thinking.

Tao Xingzhi once said that teachers must have the spirit of experimentation and guide students to study hard. This is also in line with the meaning of this case: the core meaning of the problem-based curriculum of Tianfu culture of primary school, which is based on the content of the local Tianfu culture in Sichuan. It takes the problem-based project to formulate real and comprehensive curriculum for students to study. This course is not limited to a single content, but explores various questions and related knowledge in the content of Tianfu culture through the combination of STEAM disciplines. It guides students to seek answers in various related disciplines. The course aims to guide students to try to solve problems from multiple perspectives thinking through independent exploration, cooperative learning and other diversified learning methods while exploring and studying the cultural issues of Tianfu. Students will cultivate innovative, good communication skills, and integrated thinking, teamwork, and problem-solving ability with the connotation of Tianfu culture.

4 The purpose and content of the Tianfu culture project-based curriculum of primary school

4.1 Purpose

Based on the attribute of "discipline courses and experience courses" of the national "New Curriculum Standards", proceeding from "inheriting human civilization, enabling students to master the cultural heritage accumulated by mankind, and enabling students to gain direct experience about the real world" [4], the ultimate goal of this course is to focus on cultivating and developing students' core quality and comprehensive language ability, and to promote the overall development of students in discipline knowledge, emotional attitudes, learning strategies and cultural awareness. The students are fostered with comprehensive abilities as innovation, communication and coordination, teamwork, complex problem solving, and critical thinking, which enables them to benefit from future learning and survival.

4.2 The content of Tianfu culture project-based course

Combining the cognition of the connotation of "Tianfu" historically and contemporarily, "Tianfu" symbolizes "prosperity, harmony, wisdom, optimism, innovation, and inheritance." According to the six symbolic elements of the connotation of "Tianfu", Tianfu culture naturally forms a multi-dimension on the four levels of history and humanities, natural scenery, modern technology and educational development, which is shown in ancient Sichuan civilization and Tianfu history and humanities, and science research on local nature, Tianfu civilization and modern technology in the new era.

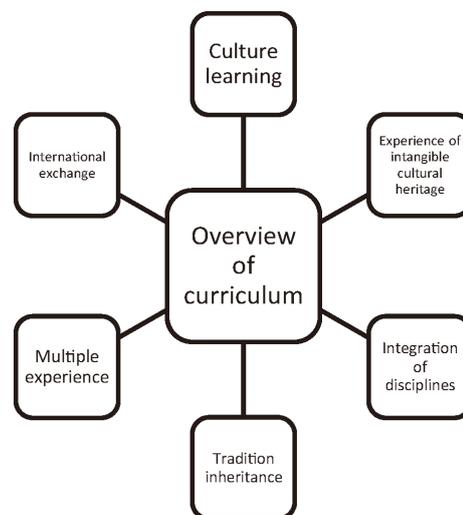
Based on the research, learning, innovation and inheritance of the unique and premium traditional content of "Tianfu Culture", we have formed the unique and premium courses with distinctive local characteristics which play a positive role in strengthening the curriculum system and enriching curriculum content of our school; It will expand students' learning space, integrate internal and external resources, optimize teaching models and learning methods, broaden students' horizons, improve students' core literacy and overall quality and abilities. We can divide the Tianfu culture problem-based courses into: Ancient Sichuan

civilization, focusing on Jinsha, Sanxingdui, Dujiangyan, the Three Kingdoms of Ancient Shuhan and intangible cultural heritage; science research in Sichuan local nature focuses on natural features such as local landforms, giant pandas, tea culture, Sichuan folk houses, and Sichuan cuisine culture as the main research objects; China's Tianfu civilization and modern technology in the new era proceeds from the "Silk Road" and "Belt and Road".

5 The implementation method and evaluation system of the problem-based primary school curriculum of Tianfu Culture

5.1 Determining the course projects

We take "Chengdu Folk Songs" course, the intangible cultural heritage, as an example: The "Chengdu Folk Songs" course is actually the precious intangible cultural heritage of our city. It is a language with "oral traditions and expressions as the medium of intangible cultural heritage". It has unique significance and value for the life and historical development of the people in our city. The content of the course includes cultural learning, thoughts of intangible cultural heritage, Sino-foreign exchanges, multiple experiences, subject integration, tradition inheritance and achievement display. It aims to comprehensively cover the essence of the curriculum and deepen students' practical operation. While grasping local cultural innovation, it also builds a platform for students to focus on cultivating and developing students' practical innovation, cultural integration and comprehensive application capabilities.



For the "Chengdu Folk Songs" course, I suggest that it be carried out in the form of a "Research and

study course", adopting the N+3+2+1 model, that is, N sessions of steam basic courses, 3 courses of foreign teacher exchange, 2 outdoor special studies and 1 achievement display.

5.2 Setting the activity content

The course system of "Chengdu Songs" makes the "steam course combined with disciplines" the basic courses. The content of the courses can be divided by different "city areas" to facilitate the centralized setting of the children's later study sites; it can also be divided by the "content" of the songs, such as the concentrated learning of "cultural" songs and the collective learning of "city life". It can be assumed that we classify the courses according to the "content", presetting 20 basic courses. Then the whole course design will be 20+3+2+1. Then our entire course will follow the model of 20 basic courses, 3 foreign teachers, 2 outdoor studies, and 1 concentrated display.

Among them, the setting of basic courses can be classified by region, such as song appreciation of "Chengdu South Gate" and "Chengdu North Gate". Or it can be classified by age, such as "1960s folk songs", "1970s folk songs", "1980s folk songs" .

The foreign teacher exchange course is designed to reflect the characteristics of our international elementary schools. Foreign teachers from France, Canada and other places are invited to join the curriculum activities. For example, foreign teachers from Montpellier, France, or a certain city in Canada can share their local common people's life ballads or cultural and educational ballads with our school's students. 1-2 courses are offered separately, focusing on introducing, learning, singing and performing ballads with foreign and local characteristics as the external communication part of this class, reflecting characteristics of language and cultural exchange of our school.

In the outdoor research course, when the basic course is at a certain stage, students will be gathered in the form of a "team" to the origin place of "Chengdu Songs" to experience and study in the local place, putting the course content into practice. Students will explore, verify, and create it on the ground. For example, they can go to "Three Bridges and Nine Caves (Nine Eyes Bridge)" to admire the scenes. They will see gods in "Qingyang Palace", "Songxian Bridge" to meet and welcome

the immortals. They can go to "Huanhua River" to take a boat. They can also explore the culture of city names and historical changes of our city on the spot. For example, the "Mule and Horse Market" used to be a place specializing in the sale of mules and horses. What is it like now? Are mules and horses still being sold there? Was the "Yanshikou" a place specializing in selling salt at that time? In addition to selling salt, what other types of shops were there? Was "Shangsheng Street" really a "street for scholars" in the past? At what age did the scholars actually do on the Street? Were they to continue the exam? What is the imperial examination system inherited from ancient times? What is the connection between "Mochi Primary School" and "Yang Xiong Mochi has academy" today?

The display of results is the embodiment of the value of the curriculum and the true product of the curriculum. In the later process of collecting results, the divergent and relevant "Chengdu Songs" course will be collected, classified and reviewed. It will be provided with opportunities and platforms, displaying the results collectively, and reflecting the value of the course.

5.3 The concern about project quality

After starting the project learning, the focus needs to be shifted from organization to quality, which is also called performance. Our ultimate goal is to make students take responsibility for the quality of their own results with reflection, analysis and judgement, thereby ending up in good results. In the problem-based learning process, the realization of this process requires team cooperation. For students in the lower grades, they can work together as a large team; for students in the upper grades, they can be divided into several efficient teams.

Research-based learning holds that for complex tasks, unity and cooperation can deepen understanding, promote high-level thinking, and produce better results. The ultimate power of cooperation brought about in the process of solving problems can never be achieved by individuals. Therefore, forming a team and pursuing quality or goals together through cooperation is one of the meaningful gifts for students.

5.3.1 Preparations for the team

At the beginning of the project, it is very important to form a premium and balanced team rather than

a "group". The team relies on the commitment of each member to others. It has a common goal, and uses the collective resources of the team to develop better works. The group is not of this kind without promise to fulfill the meaning. Before the project, the allocation of team members can be determined. Students can form their own teams according to their own interests and abilities. When introducing the project, the mentor needs to set strict guidelines to determine the size of the team, the operation method, and even the standards for the establishment of the team. This will avoid later problems. For instance, if there are problems in the team's previous cooperation, the mentors will spend more time for reorganization of team.

5.3.2 Strictly abiding by the standards

Problem-based learning is a logically rigorous learning system that can take a series of measures to formulate overall standards and directions. For example, we can set team standards and clarify work agreements which include how the team communicates, communicates with each other, listens carefully, learns from each other, asks for help, abides by promises, and copes with obstacles and solves problems together. Becoming an excellent and contributing team requires contributions to others, the team, the community and the society. Therefore, it is necessary to check the results and give corresponding and timely responds. After clarifying tasks and goals, we need to check and reflect on strengths and challenges during the project, discuss problems, solve problems, and reflect on self-worth and mutual commitment and contribution.

5.3.4 Project evaluation system

The evaluation system of this course is mainly composed of the following parts: output evaluation, cultural exchange evaluation, research evaluation and assembly publishing.

The output evaluation is aimed at the evaluation of basic courses, mainly acting on the comprehensive performance and behavioral awareness evaluation of students in class. The cultural exchange evaluation

is aimed at the evaluation of the results of foreign teachers' courses. The foreign teachers conduct team-based evaluations of student teams. The research evaluation is aimed at the outdoor research courses, mainly for the evaluation of the related content of the collective and team-based research and studies. Collectively publishing session make open evaluations in was of exhibitions and publishing for teachers' and students' works with outstanding characteristics and value.

The Tianfu culture, which has been passed down for a long time, fully demonstrates the creativity and open mind of the working people in the Tianfu area. It also breaks through the limitations of text, forming a very distinctive and unique local characteristic, providing a kind of general opportunities. The symbol of "Tianfu" has been accumulated for thousands of years and has become a rich intangible asset. It embodies the convergence of cultural shaping and identification in our city. It is engraved into contemporary primary school education with unique discernment, combined with problem-based learning. It is beneficial for "Tianfu culture" to preserve the local characteristic culture and spiritual personality in the province, even in the country and the world. And the regional cultural heterogeneity is preserved and deepened, so as to enhance the competitiveness of local primary education.

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