

Discussion on the Integration of Traditional Chinese Medicine Culture Characteristic Curriculum into Primary Education Teaching Practice

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Abstract: Chinese medicine culture is the treasure of the traditional culture of the Chinese nation, but also the characteristics of our school have been integrated into the school concept, physical environment layout and school-based curriculum development as well as other campus construction through the efforts of teachers and students. Combining project-based learning with Traditional Chinese Medicine (TCM) cultural characteristic curriculum, combining the cognitive development characteristics of primary school students, textbook content and curriculum core accomplishment, and carrying out project design and application research is not only an inevitable choice to comply with the requirements of the new curriculum reform teaching policy, but also an effective way to inherit and carry forward the excellent traditional Chinese culture, protect students' physical and mental health, and cultivate students' core accomplishment.

Keywords: Project-based learning; Traditional Chinese Medicine culture; Curriculum design and application

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1. Integration of Traditional Chinese Medicine curriculum into primary education teaching and research background

Traditional Chinese Medicine (TCM) culture is a treasure in the traditional Chinese culture, but also the characteristics of our school have been integrated into the school philosophy, physical environment layout and school-based curriculum development together with other campus construction through the efforts of teachers and students. Combining project-based learning with traditional Chinese medicine cultural characteristic curriculum, combining the cognitive development characteristics of primary school students, textbook content and curriculum core accomplishment, carrying out project design and application research is not only an inevitable choice to comply with the requirements of the new curriculum reform teaching policy, but also an effective way to inherit and carry forward the excellent traditional Chinese culture, safeguard students' physical and mental health, and cultivate students' core accomplishment.

1.1. Project-based learning is conducive to cultivating students' core literacy and promoting the high-quality development of basic education

Project-Based Learning (PBL) is a student-centered and task-driven approach to teaching and learning. It involves students in the design, implementation and evaluation of practical projects to solve problems, complications or challenges in real situations ^[1]. In order to acquire new knowledge and skills in these real experiences and experiences, and at the same time cultivate their core qualities such as humanistic heritage, scientific spirit, learning to learn, healthy life, responsibility, practice and innovation, PBL can be carried out. Therefore, project-based learning is one of the effective ways to cultivate students' core literacy, which can lay a solid foundation for students' future development.

1.2. Integration of TCM culture into the campus and course is an important way to ensure the physical and mental health of students and inherit the excellent culture

With a history of 5 000 years of civilization, TCM is inclusive and profound. It embodies the integration and unity of natural sciences and humanities and contains the profound philosophical thoughts of the Chinese nation. It is an original scientific and technological resource, an excellent cultural resource and an important ecological resource in China. The introduction of TCM into the campus and the curriculum enables students to understand and learn excellent philosophical thoughts such as the harmony between man and nature ^[2], the balance of Yin and Yang, and the differentiation of syndrome and treatment, forming a unique perspective on life, health, disease, and prevention and treatment. It is an important way to promote and maintain human health and prevent and cure diseases, as well as a key to protect the scientific and cultural treasures of ancient China and unlock the treasure house of Chinese civilization.

1.3. Project-based learning is an effective carrier for the implementation of TCM cultural characteristic curriculum in primary schools

In project-based learning, students need to explore problems independently, collect information, analyze data, formulate plans, and verify and optimize their own ideas through practice. This method can stimulate students' learning interest and initiative ^[3], improve their learning effect and sense of achievement, and has a certain degree of compatibility with the design and application of TCM curriculum with cultural characteristics in primary schools. In the course design and application, guided by project-style learning, teachers carry out reasonable design and implementation according to the actual situation and integrate TCM knowledge, skills and excellent traditional culture into the education and teaching system of primary and secondary schools, which can help students understand the basic theories of TCM, master the health care methods of TCM, cultivate students' love for TCM culture and awareness of inheritance, and ensure students' physical and mental health ^[4]. At the national level, it can help train the reserve force of TCM talents and promote the inheritance of TCM science, technology and culture.

2. Research questions and significance of integrating traditional Chinese medicine cultural curriculum into primary education and teaching

2.1. Research questions and purposes

TCM culture is one of the characteristics of our school, which is not only an important content of inheriting excellent traditional Chinese culture but also an effective carrier of connecting subject knowledge and cultivating students' core qualities ^[5]. Learning activities relying on TCM culture development project can play an integrated role in promoting the change of the school's learning style. The main problems to be solved in this

study are as follows:

- (1) How do objective learning and TCM curriculum fit effectively? Specifically, based on the respective characteristics of project-based learning and primary Chinese medicine curriculum, we should find the “greatest common factor” in the aspects of concept, goal, theme, method and content, and infiltrate the TCM culture into the curriculum learning and campus life of primary school students, and connect it with their actual life.
- (2) In the course design, how to carry out the interdisciplinary integration of TCM cultural resources based on project tasks and promote the cultivation of students’ comprehensive ability? How to integrate science, language, Chinese, mathematics, science, art, music, sports, labor, comprehensive practice and other disciplinary elements ^[6] in the TCM cultural project to promote the exchange and cooperation between disciplines?
- (3) In the implementation of the project, how to design a project-based learning curriculum based on TCM cultural characteristics suitable for primary education? For students in different grades and stages of development, how to determine the appropriate project theme and learning tasks, and how to balance the depth of TCM cultural knowledge and the comprehensibility of students’ ages?
- (4) How to position and play the role of teachers to adapt to the curriculum design and implementation strategies based on the cultural characteristics of TCM? How can teachers be facilitators of students’ learning, providing necessary support and guidance while taking into account the needs of students for independent inquiry and cooperative learning? ^[7]
- (5) In terms of project evaluation, how to evaluate students’ learning outcomes and the cultivation of core qualities to carry out process evaluation? How to evaluate quantitatively and qualitatively the development of students’ core qualities such as comprehensive ability, innovative thinking and cooperation ability in the project? How to evaluate students’ learning outcomes?

The above five aspects become the starting point and expected goal of this study. Through in-depth research and discussion on these issues, theoretical support and practical guidance are provided for the curriculum design and implementation of project-based learning with Chinese cultural characteristics.

2.2. The significance of integrating TCM cultural characteristics curriculum into primary education and teaching practice

The new curriculum standard puts forward the requirements for project-based learning. However, many teachers currently lack the corresponding curriculum design and implementation ability. Therefore, effective school-based research and training are needed to help teachers improve their corresponding abilities as soon as possible. The significance of this study is not only to promote the implementation of the new curriculum standard, but also to update the concept of education, realize the modernization of curriculum and teaching ability, and take important measures to train high-quality, professional and innovative teachers ^[8].

3. Design and application of TCM curriculum with cultural characteristics in primary schools based on project-based learning

3.1. Research path

As shown in Figure 1, is the research path of TCM cultural characteristics curriculum in primary schools based on project-based learning.

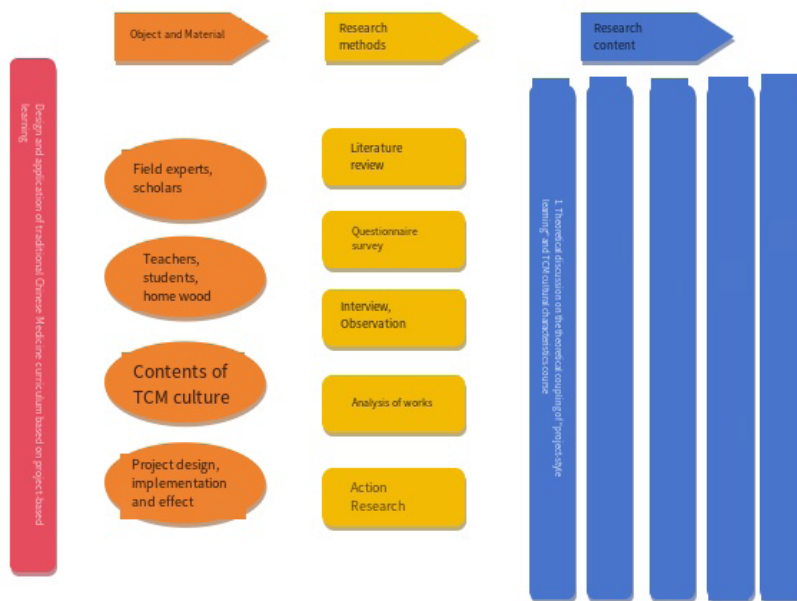


Figure 1. Design and application of TCM curriculum based on project-based learning.

3.2. Research content of TCM cultural characteristics curriculum in primary schools based on project-based learning

3.2.1. Theoretical coupling between project-based learning and TCM curriculum with cultural characteristics

Project-based learning emphasizes that students take the initiative to explore and discover knowledge through participation in actual projects, while the course of TCM cultural characteristics provides rich cultural resources and practical activities of TCM, which has a large theoretical space for compatibility^[9]. This part summarizes the literature, educational policies and new curriculum requirements in related fields to understand the research results and current status of project-based learning and TCM cultural education in recent years:

- (1) First, from the perspective of constructivism learning theory, it examines the meeting point of PBL and TCM cultural characteristic curriculum under the framework of constructivism learning theory, and analyzes and constructs the correlation between them in knowledge construction, learning strategy and cognitive development.
- (2) Second, from the perspective of discovery learning theory, the theoretical coupling between PBL and courses with cultural characteristics of TCM can be discussed in terms of the exploratory learning process, real situation, problem discovery and solution process, individual difference and diversity, and their mutual relationship and complementarity in the learning process can be explored to provide theoretical guidance and inspiration for educational practice.

3.2.2. Project-style curriculum design of TCM cultural characteristics curriculum

- (1) First, investigate and understand the subject knowledge reserve, interests and learning needs of target student groups, so that their cognitive level and learning attitude can be determined in TCM culture, and provide basic data and a basis for the design and implementation of project-based learning courses^[10].
- (2) The second is to design an advanced course system of PBL. According to the cognitive development stage of students in different grades, develop TCM project learning themes suitable for students

in different grades, guide the project teaching in the grade horizontally, and form a project inquiry advanced system vertically. Under this framework, specific projects of subject teaching or interdisciplinary teaching in each grade are designed, implementation plans are determined, and five TCM cultural project learning curriculum maps are formed, including TCM culture, cultural activities, health knowledge, diagnosis and treatment, and drug knowledge.

3.2.3. Application of TCM cultural characteristics curriculum in primary schools based on PBL

Based on the key steps of project-based learning, the cultural curriculum of TCM and the characteristics of students' cognitive development, project-based learning is initiated on the basis of selected theme items, including knowledge introduction, project planning, information collection and other processes. Explore key issues in implementation such as how to determine the core driving problems, how to assign learning tasks, how to balance the depth of TCM cultural knowledge and the comprehensibility of students' age, how to promote students' independent inquiry, how to play the role of teachers, and how to display and evaluate results, in an effort to form a series of supporting tools for project learning and implementation ^[11].

3.2.4. Comprehensive evaluation system of TCM cultural characteristics curriculum in primary schools based on PBL

Considering students' learning process and learning results, the multi-evaluation system is designed to develop evaluation indicators and evaluation methods for the process and results of project learning implementation, to comprehensively and objectively evaluate students' performance and learning effects. The purpose of designing multiple evaluation systems is to comprehensively and objectively understand students' performance and learning effect in project learning, and promote students' all-round development and personalized growth. At the same time, through multiple evaluations, it can also stimulate students' learning motivation, and enhance their self-cognition and independent learning ability ^[12].

3.2.5. Practical experience and application promotion of primary school curriculum based on PBL

Experience reflection and promotion is a very important part of the primary school curriculum practice of project-based learning, which helps to sum up experience, find problems, improve teaching methods, and promote successful practical experience to a wider range of teaching practices ^[13]. Experience reflection mainly includes five aspects:

- (1) First, it summarizes the original intention, goal and concept of curriculum design, and clarifies the goal and significance of the project. The innovation of the project design is analyzed and the practical effect of the design concept is discussed.
- (2) The second is to review the implementation process of the project and analyze the rationality and effectiveness of the activity arrangement. Discuss the influence of students' participation, team cooperation, classroom atmosphere and other factors on the implementation of the project ^[14].
- (3) The third is to summarize the selection and application of teaching methods and evaluate the effectiveness and applicability of various teaching methods. Analyze the degree of full utilization of teaching resources and their supporting role in teaching.
- (4) Fourth, summarize students' learning outcomes and performance, and analyze students' gains and growth in project learning. It can be done by collecting feedback from students and parents to understand their comments and suggestions on project learning.
- (5) The fifth is to analyze the situation of teamwork and evaluate the teacher's guiding and supporting role

in the project ^[15], through discussion on the change of teachers' roles and the ways of teachers' teams working together.

- (6) The sixth is to find the problems and challenges in the process of project implementation, analyze the causes and solutions of the problems.

On this basis, the effective implementation strategies and lessons are extracted to provide reference and reference for other teachers and schools. The research results will be written into academic papers or educational practice guides for promotion and sharing.

Disclosure statement

The author declares no conflict of interest.

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