A Study on the Path of Interdisciplinary Project-based Learning in Primary School Chinese

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Abstract: Interdisciplinary project-based learning plays an important role in the context of deepening changes in the development of core literacies in education. Interdisciplinary project-based learning is close to a “complete learning process”, which is based on specific authentic situations created by teachers and guided by a task-driven learning model, and takes a multidisciplinary approach to promote students’ core literacy of Chinese and problem-solving skills. In the process of interdisciplinary project-based learning, teachers need to recognize the value and significance of interdisciplinary project-based learning, understand the specific connotations of interdisciplinary project-based learning, and master the implementation strategies of interdisciplinary project-based learning in order to realize the real purpose of interdisciplinary project-based learning.

Keywords: Interdisciplinary, Project-based learning, Primary school Chinese.

1. Introduction

The traditional sub-disciplinary teaching has to a certain extent severed the connection between subject knowledge and real life, hindered the application and transformation of knowledge in daily practice, and made the learned knowledge gradually become “inert knowledge”, which is not conducive to the cultivation of students’ innovative spirit and practical ability. The Compulsory Education Curriculum Program (2022 Edition) explicitly proposes “to set up interdisciplinary learning activities, strengthen interdisciplinary connections, drive the integrated implementation of the curriculum, and strengthen practical requirements”[1], which is an important manifestation of the tendency to de-disciplinarity of the curriculum. The integrated use of multidisciplinary knowledge to discover problems, analyze them, and solve them becomes a positive guide for integrated Chinese practice activities, and our Chinese learning should constantly link inside and outside the classroom, inside and outside the school, and even the vast social life.

Project-based learning (PBL), as an emerging learning approach that points to problem-solving skills, triggers students to think about and solve real and complex problems through the continuous exploration of core concept-driven problems, forming public visualization results, realizing cross-context and cross-disciplinary knowledge transfer, and effectively cultivating students’ ability to solve real and complex problems. Therefore, advocating interdisciplinary project-based learning has attracted much attention in the education sector, but there is currently little research on interdisciplinary project-based learning at the primary level, and many teachers have a vague definition of interdisciplinary project-based learning. This paper discusses in depth the specific connotation, value, and implementation strategies of interdisciplinary project-based learning.

2. Specific Connotation of Interdisciplinary Project-based Learning

What is interdisciplinary project-based learning? First of all, we need to define interdisciplinary learning and project-based learning. Interdisciplinary learning is different from multidisciplinary learning in that it is not a simple piecing together of knowledge from multiple disciplines or a simple application of existing knowledge, but is directed at solving real, complex problems, integrating knowledge and methods from different disciplines, and generating holistic understanding, not for the sake of interdisciplinary project-based learning, on the other hand, is a deep and sustained inquiry around an authentic and complex driving problem, resulting in a project outcome that focuses on developing students’ core competencies and literacies.

As we can see from the above definition, interdisciplinary project-based learning combines the key features of interdisciplinary learning and project-based learning, with interdisciplinary learning focusing on disciplinary integration and project-based learning focusing on continuous inquiry, but both share the common characteristic of “inquiry around an authentic problem”. The key to interdisciplinary project-based learning is not the “use of knowledge from different disciplines” but rather the emphasis on “deep and sustained inquiry” to develop an integrated understanding of knowledge from different disciplines. For example, if a student uses art drawing skills when working on a collection of Chinese poems, this is not interdisciplinary project-based learning, but simply disciplinary project-based learning. However, if both Chinese and then art are explored and studied in depth, and students are required to draw in a way that reflects the context of the poem, then this has the characteristics of interdisciplinary project-based learning. Regarding the specific connotation of interdisciplinary project-based learning, Dr. Xia Xuemei defines it as the learning and creative integration of core knowledge and competencies from different disciplines in order to develop integrated project outcomes and new understandings in order to solve a real and complex problem[2]. Therefore, in the design and implementation of interdisciplinary project-based learning, teachers need to break down disciplinary boundaries, reintegrate learning content from different disciplines, and meaningfully relate core knowledge and competencies from different disciplines so that students can gain a holistic understanding through authentic problem exploration and solving[3].
3. Value of Interdisciplinary Project-based Learning

In the context of a growing global economy, it is not enough for today’s students to rely on classrooms, textbooks, and worksheets to become citizens of a new age, and members of their communities and beyond. In the world beyond school, students will face challenges and problems that rote information and inert knowledge cannot solve. Our education should prepare students to be problem solvers, creators, critical thinkers, and effective collaborators and communicators. Compared to other teaching methods, interdisciplinary project-based learning can achieve this goal more effectively. It is not only an activity that motivates students to engage in learning, but also a deep learning experience that can effectively promote interdisciplinary literacy, knowledge transferability, and problem-solving skills.

The essence of interdisciplinary project-based learning is to respond to complex problems in the real world, involving the combination, transfer and application of knowledge from more than two disciplines, pointing to the ubiquitous, disciplinary indivisibility of authentic learning[4]. Actively carrying out interdisciplinary project-based learning is, first, conducive to students’ transformation of core knowledge into comprehensive ability through practical inquiry, cultivating students’ innovative literacy, and meeting the needs of diversified and innovative talents in the new era; second, conducive to students’ understanding of the unique value of disciplines and the mutual promotion between disciplines, and has outstanding advantages in interdisciplinary teaching, which is an effective way to develop students’ core literacy and is also an effective vehicle for schools to conduct Third, it can also help students systematize their knowledge and apply it to real social practices, realize the transformation from subjects of learning to subjects of social practice, and make them establish connections with people and events around them, even with the broad social-historical practices, so as to enhance students’ diversified abilities.

4. Strategies of Interdisciplinary Project-based Learning in Primary School Chinese

4.1 Clear Theme and Integrate Interdisciplinary Learning Content

In the current primary school Chinese teaching, teachers mostly take the knowledge of this subject as the focus of teaching, rarely take into account the knowledge of other subjects, moreover, they lack the awareness of interdisciplinary learning, and students’ thinking is relatively limited. Therefore, clarifying project themes and integrating knowledge from different disciplines are the prerequisites for interdisciplinary project-based learning. In this process, teachers are not only the designers and leaders of teaching activities, but also the learners. Teachers should participate in students’ learning, explore and learn together with them across disciplines, and take the initiative to understand and learn from other disciplines. At the same time, teachers should also do a good job of “linking across boundaries,” strengthening communication with teachers of other disciplines, and coordinating the teaching arrangements of other disciplines[5]. Teachers can design interdisciplinary project-based learning themes based on reasonable goal setting according to the connection points between multidisciplinary knowledge, and place the project landing point in the Chinese discipline, using the integration of different disciplines to guide students to explore and think deeply in a broader scope, helping students’ core literacy of Chinese, aesthetic appreciation creation and The project is based on the integration of different disciplines to lead students to deeper inquiry and reflection, helping them to improve their core literacy of Chinese, aesthetic appreciation and creativity, as well as multiple comprehensive abilities[6].

Chinese learning should be based on students’ real-life experiences, tightly focused on Chinese elements, and enhanced multidisciplinary integration. For example, in the unit on revolutionary themes in the sixth grade of the Unified Edition, teachers can take “finding revolutionary heroes and refining heroic qualities” as a clue and clarify the project theme of “celebrating heroes and feeling life”, and guide students to read the three texts and three ancient poems in this unit. They can guide students to read three texts and three ancient poems in this unit and learn about the stories of the characters. Teachers can also combine Chinese, art, physical education and music, and propose the task of “recruiting heroes’ posters”, and complete the design of public service posters “paying tribute to heroes with paintbrushes” to further understand the qualities of heroes; create hero rhythmic exercises in physical education class; in the project In the project, on the basis of the initial understanding and expression of heroic qualities, the students used the comprehensive art form “Memories of Sixteen Years Ago” to express their tribute to heroes.

4.2 Linking Experiences and Creating Authentic Task Contexts

The Chinese Curriculum Standards for Compulsory Education (2022 Edition) emphasizes that “contexts should be created to establish connections between Chinese learning, social life and students’ experiences, in line with students’ cognitive level; they should integrate key Chinese knowledge and Chinese skills, and reflect the process and methods of using Chinese to solve typical problems.”[7] Context reveals the natural connection between Chinese and life. Chinese learning activities are derived from real-life situations, which enable students to better return to real scenarios of Chinese use, bridge the relationship between Chinese courses and students’ lives, enable students to learn by doing, and promote the enhancement of core literacy and comprehensive competence. Therefore, it is crucial to introduce interdisciplinary project-based learning into the primary school Chinese curriculum by setting up authentic task contexts. What is an authentic task context? In the Dictionary, “context” refers to “the social environment in which a person performs a certain action, the specific conditions under which people’s social behavior occurs.” “Context” prefers to be specific, objectified, and artificially created or chosen to meet subjective purposes or achieve subjective intentions[8]. Authentic task situations are relatively “life-like” situations that are closely related to students’ learning environment and knowledge background, and students are engaged in
socialized practical activities that are interesting, identity substitution, and have realistic meaning.

How to create an authentic task situation? First of all, authentic task contexts must be created to serve the development of students’ core literacy. “Project-based learning refers to authenticity on two levels: the authenticity of the knowledge and abilities learned, and the authenticity of the way of thinking used”[9]. Secondly, when creating authentic task contexts, the “events” contained in the contexts should be authentic, typical and practical. Authenticity, in which students can achieve identity substitution, should be included even if the situation is fictional; typicality, which attracts students’ attention and stimulates their interest; and practicality, in which students have to learn to identify, analyze, and solve problems in the process of inquiry. Finally, the real task context should be moderately difficult and easy, and the driving questions should be moderate, in line with Vygotsky’s “nearest development zone” theory. For example, in the third unit of the third grade book, the theme is “Traditional Chinese Festivals”, teachers can set the task situation of “Our family celebrates festivals like this”, and guide students to choose the traditional festivals as “small messengers”. They can work in groups and use various forms to introduce their hometown’s festive customs and the wonderful stories hidden in the traditional festivals.

4.3 Integration of Resources to Provide Authentic Learning Experiences

The interdisciplinary project-based learning of primary school Chinese is an inquiry activity for many topics inside and outside the subject, inside and outside the school and social life, and the activity site can be expanded to a vast world outside the school. In this vast world, there are a wide variety of educational resources, practical resources, and activity conditions to choose from. The interdisciplinary project-based learning of Chinese can make full use of social resources outside the school and open up synergistic cooperation with various places such as science and technology museums, cultural museums, museums, and New Age civilization centers[10]. For example, in the theme unit of “Science Spirit” in the second book of the sixth grade, the interdisciplinary project learning of this unit not only integrates the multidisciplinary resources in the school, but also makes use of the cultural resources outside the school to innovate and develop a series of museum practical activity courses with comprehensive, activity and enlightenment around the museum, and opens up the local science and technology museums, museums and other cultural centers for scientific research activities. The new model of science research activity courses in cultural centers.

The implementation of interdisciplinary project-based learning in primary school Chinese can also make use of aesthetic education resources inside and outside school, and effectively connect the integration of Chinese subjects with painting appreciation, photography appreciation, and historical information exploration through a multidisciplinary crossover approach to carry out interdisciplinary Chinese teaching with the theme of aesthetic education. At the same time, primary school Chinese teachers can actively visit the excellent local folk culture and develop activity courses with their own regional culture, either through deep cooperation with cultural venues outside the school or by having folk art groups enter the school to provide students with activity course guidance, which can effectively break the dilemma that many traditional cultures go unnoticed and also provide primary school students with new and tangible activity experiences of interdisciplinary learning. It also provides primary school students with new and tangible interdisciplinary learning experiences and opportunities for teamwork and innovation. Of course, interdisciplinary project-based learning is inseparable from social and community support, from the support of educational administration and school-related departments, and especially from the supply of excellent teachers. In the traditional educational evaluation environment, teachers are inevitably intimidated by cross-curricular project-based learning. Therefore, it is important to actively carry out interdisciplinary project-based learning while also improving the overall teacher level and increasing teacher training.

The continuous integration of Chinese theme-based units with museums, cultural centers, art centers, universities, and many other educational resources has created a new paradigm for the development and teaching design of interdisciplinary project-based curriculum for primary school Chinese, and has provided rich innovative experiences for interdisciplinary teaching practices under the new curriculum reform, promoting the organic unification of local cultural resources with Chinese teaching work and integrated practical activities, which can undoubtedly give primary school Chinese The implementation and development of interdisciplinary project-based learning provides quality new ideas.

4.4 Visible Results and Focus on Multi-whole-process Evaluation

Unlike the summative evaluation of traditional teaching, project-based learning emphasizes “beginning with the end” and “continuous evaluation”, requiring that learning outcomes and the process of intermediate inquiry be considered from the beginning, and that the learning outcomes and the way of disclosing the outcomes be made clear. According to the principle of “teaching-learning-evaluation” consistency, interdisciplinary project-based learning evaluation should be carried out throughout, and “considering learning outcomes” reflects summative evaluation. “Considering the process of intermediate inquiry” reflects the process evaluation. The new Chinese standards on interdisciplinary learning point out that the evaluation is mainly based on students’ performance in various kinds of inquiry activities and the learning outcomes such as programs, posters, research reports and video materials completed during the activities. Teachers should pay great attention to teaching evaluation and try to use diverse evaluation methods, not only to guide students to actively participate in learning activities, but also to truly realize the role of evaluation. Teachers can develop evaluation scales for the main learning aspects and contents, conduct teacher evaluation, group mutual evaluation and student self-evaluation, and invite teachers of related subjects, parents and community members to participate in the evaluation. Diverse and rich subjects can improve the richness of teaching evaluation and allow students to be fully motivated to learn. In particular, students’ self-evaluation and mutual evaluation can
effectively bring into play the role of peer role models and exemplars.

Chinese learning has always been almost exclusively mechanical and repetitive assignments such as copying and writing, doing exercises, reading texts, and memorizing texts. In interdisciplinary project-based learning, teachers can provide multiple ways for students to demonstrate, tap and integrate book-based and real-life Chinese resources, combine practical activities with Chinese literacy, and enable students to learn and apply various knowledge in the learning process. In addition to the written form, the presentation also includes oral expression, drawing, writing, video shooting and other forms, so that students with different interests can gain a sense of achievement in what they are good at. For example, in the last unit of the sixth grade of the Unified Edition, “Into Lu Xun,” students can create “book posters,” make engravings of Lu Xun, draw maps, make handmade covers, recite their works, and introduce their lives, based on the four texts of the unit. Students can use their favorite ways to bring Lu Xun into their lives and present a flesh-and-blood Lu Xun. The project evaluation should focus on the students’ attitude and ability to think and solve problems by using multidisciplinary knowledge. At the same time, the evaluation is mainly encouraging, fully recognizing students’ discoveries and creations, and guiding them to self-reflect and improve the quality of interdisciplinary learning.

5. Conclusion

Cross-curricular project-based learning has become the direction of the current education reform and curriculum construction, because it connects with real life, emphasizes integration, and points to the real needs of Chinese core literacy. In primary school Chinese teaching, it is important to carry out interdisciplinary project-based learning, which is a learning activity based on breaking through disciplinary boundaries, linking activities inside and outside the classroom, and organically integrating with the broad society. In order to build a three-dimensional network of interdisciplinary learning that points to core literacy of Chinese in real situations. By carrying out interdisciplinary project-based learning in Chinese teaching, teachers can not only stimulate students’ interest in learning, but also broaden their horizons and present them with a more open and inclusive Chinese classroom, so that students’ comprehensive ability can be improved.

References