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Music-Based Research on the Interdisciplinary Integration of Art Courses Under the Direction of Core Literacy

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Since the new curricular standard for art in China's compulsory education was released over a year ago, many academics and practitioners in the field have explored the "core literacy" it contains from both a theoretical and practical standpoint. At the same time, project-based learning (PBL) and other interdisciplinary teaching approaches have proliferated in classroom settings all over the world. This essay is informed by "core literacy" and built around the study of music. It covers the numerous options for interdisciplinary integration by starting with the author's teaching practice.

1. Concept Explanation

The People's Republic of China's Ministry of Education will release a new curriculum standard for required arts education in 2022. The new curriculum standard applies the idea of "integration," which includes not just music and fine arts but also dance, theater (including opera), cinema and television (including digital media art), and other disciplines. This is in contrast to the traditional segregation by discipline. Create interdisciplinary theme learning activities, improve the relationship between the subjects, promote thorough course implementation, and bolster the practical requirements. Aesthetic perception, artistic expression, creative activity, and cultural awareness are all emphasized in the new curricular standard as "core literacy" to further the idea. One of them may be utilized as the foundation for the teaching design when creating courses, or they may be merged, or a series of courses may be created. The introduction of the new curricular standard and the suggestion of "core literacy" provide art course development a theoretical foundation.

Two complimentary teaching modalities typically occur in interdisciplinary instances in accordance with the needs of interdisciplinary integrated teaching: One is STEAM education, which was first put up as a "integrated education" in the United States in 1986 to address the demands of developing scientific and technical abilities. Science, Mathematics, Engineering, and Technology Education is an interdisciplinary program designed to dissolve subject barriers. Later, the humanities and arts disciplines are combined on the basis of the four scientific and engineering disciplines. It is evident that in order to nurture individuals with all-round development and both ability and political integrity, it is vital to increase cultural heritage cultivation in addition to fostering inventive skills; The second is PBL learning, or problem-based learning, which was initially introduced in the context of medical instruction. Students complete the creation of self-learning while collaborating in groups to tackle challenging and significant problems that arise in everyday life according to this teaching methodology. The two teaching approaches take distinct approaches to multidisciplinary integration. Since its inception, STEAM education has been committed to integrating disciplines, and the specific subjects for this integration have been made clear. PBL emphasizes problem-solving and eventually integrates a range of subject-specific information. The teaching strategy will be clearer and the learners' initiative will be effectively used if the two can be blended.

PBL and STEAM education adoption both face significant challenges. Although STEAM education has been widely implemented internationally, it still lacks significant cultural construction in the national context. The same is true of PBL instruction. Some academics in our nation have all agreed that it is important to emphasize the development of humanistic literacy in the classroom and how to create interdisciplinary education based on the humanities. For instance, subject-integrated education (A-STEM) led by the humanities, subject-integrated education (C-STEAM) focused on cultural inheritance offered by Zehui Zhan, and PBL learning all use the national culture as the central theme to carry out their respective lessons. There are also some academics who have written

on this. For instance, Japan has proposed a "Liberal Arts" learning approach that mixes STEAM and "Art" with music, literature, and history. For the interdisciplinary integration based on the humanities, each of them offers a theoretical foundation and a useful reference. The author is taking in the organization and methodology of many of the scholars who were listed above, using the core literacy as a guide, highlighting the integration of disciplines as a means, putting into reality a number of educational techniques, and adding his own understanding and way of thinking about art courses.

2. The theoretical framework for the implementation of interdisciplinary integration in art classes guided by core literacy

The way that art disciplines are currently taught is still based on a particular subject. Comprehensive art education theory has not yet been developed, and practice has not accumulated. In related study, the PBL+STEAM teaching theoretical model was developed in interdisciplinary learning using middle school music to encourage the development of students' core literacy: The content layer is driven by the situational problem design emphasized by PBL learning, emphasizing the use of interrelated knowledge of art disciplines and solving practical problems from the perspective of comprehensive application of art disciplines in life; the teaching layer is based on the C-STEAM teaching ETIC framework (Zehui Zhan, 2020), allowing students to solve art-related problems in the mutual transformation from "need to know" to "need to do"; the target audience is high school students; and the goal is to increase student according to. (Figure.1)

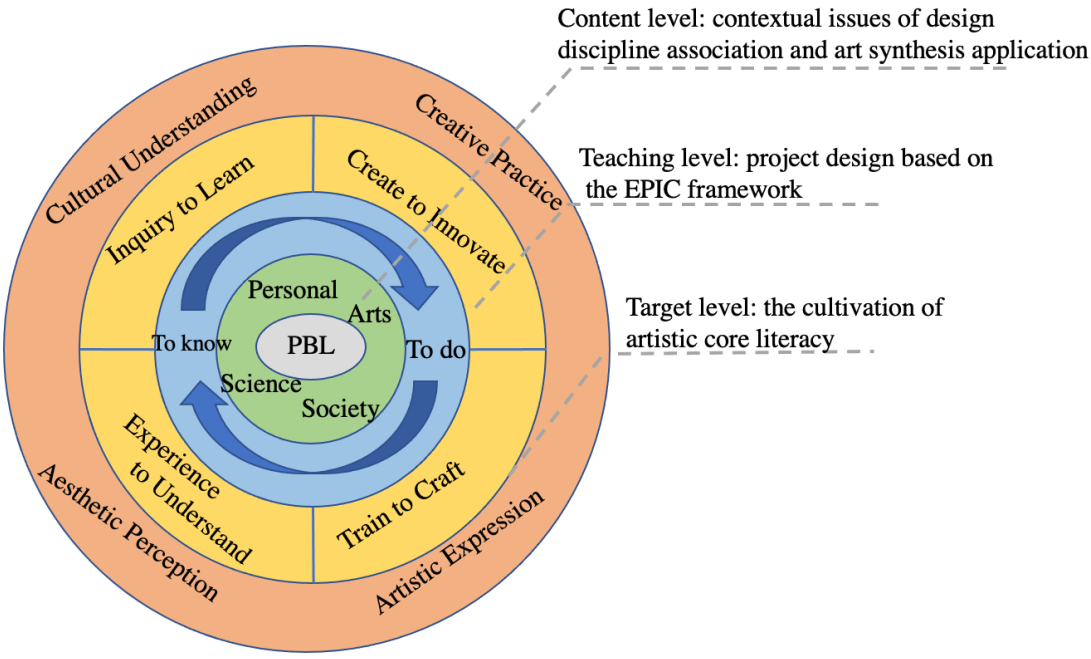

Fig.1 The theoretical framework for the implementation of interdisciplinary integration in art classes guided by core literacy

2.1 Content level: contextual issues of design discipline association and art synthesis application

The use of sizable units into the teaching of several subjects has proven popular in China. Large units begin to stress the integration of interdisciplinary knowledge as well as the integration of information within a discipline. The author views the issue scenario as the central theme guiding the design of the large-unit curricular system and views it from a variety of perspectives, including those of the person, society, science, and art. In order to finish educating different

cognitive levels and varied practical talents, questions drive the project's growth.

Art is a component of culture and is the outward manifestation of a person's internal cultural literacy. Focusing on the person's comprehension of the meaning of art and their pursuit of creativity, the problem of personal circumstance focuses on creative cognition and artistic creation. Learning about the link between art and society can aid students in developing a better understanding of the interaction between people and society since it is a crucial component of social ideology. For instance, the relationship between artworks and their historical context, is the strong relationship between a certain social setting and creative output. The scientific situation's question structure encourages students to view life from a variety of perspectives and focuses on how humanism is expressed in scientific activity. The art situation begins with its own reflection and development, sorts out the traits, motivations, and modes of expression of artistic disciplines throughout history, and then combines modern technical tools and cultural contexts to produce new artistic products, expanding the idea of inheritance and development. issue. Situational issues based on the arts disciplines might not only design negative interactions between people and the arts, but also between people and society. It is important to pay close attention to the fact that the situation design should match the cognitive ability of the students and have a clear direction, such as progressing from task-driven to large-scale or from shallow to deep. The problem scenario must be extremely real-world-relevant, open-ended, and diversified.

2.2 Teaching level: project design based on the EPIC framework

The EPIC framework, which was first created for subject integration education (C-STEAM) focused on cultural inheritance, is referenced in this study. The framework divides learning into four categories: Experience to Understand, Train to Craft, Inquiry to Learn, and Create to Innovate. Courses are categorized in two dimensions of "process-result" (training technique) and "low-level-high-level" (ability development). (In Figure 2)Among them, the feeling experience type and memory training type fall under the "need to know" category for learners and are associated with the development of cognitive ability; the skill training type and inquiry learning type fall under the "need to do" category for learners and are associated with practice. "Knowledge" and "doing" are not separate educational components for improving ability; rather, they are interconnected parts of a curricular system that is implemented repeatedly.

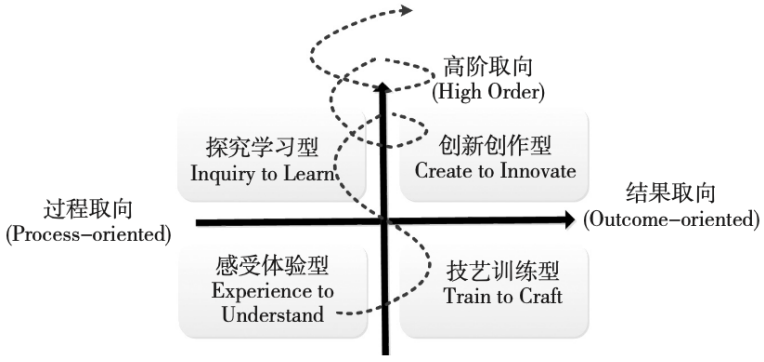

Figure 2 ETIC framework of C-STEAM project

The Experience to Understand, type falls under the "low-level + process" perspective in terms of training techniques and ability development. It is possible to gain bodily and mental pleasure, value recognition, and the active development of creative conceptions through the processes of appraisal, copying, and imitation. To attain in-depth learning rather than only a taste, process instructors must assist students in thinking, particularly multi-channel, multi-angle, and interdisciplinary thinking.

The Train to Craft type is "low-level + result" focused, stressing the development and application of subject-

specific abilities in the arts while encouraging interdisciplinary thinking founded on first-hand experience. Projects eventually provide a tangible finished product or a show of competence with separate art, science, and engineering components. mastery of imitation, skill acquisition, and skill display.

The "high-level-process" perspective, which is concerned with comprehending and internalizing creative situational difficulties, includes the Inquiry to Learn type. If the knowing-by-experience kind is "knowing what it is," then "knowing why it is" based on it is the furthering of learners' "need to know" Engage in activities that are inquiry-driven, think critically and thoroughly about artistic traits and interdisciplinary-related material, and make conclusions through hands-on assessments. The learning outcomes are frequently given in reports at the project's conclusion. New questions and ideas may be raised during the research process, leading to further investigation and iterative learning.

The "high-level-result" approach is shared by the Create to Innovate type, which emphasizes the integration of artistic or multidisciplinary material offered in response to a problem scenario, the creation of novel goods, and the realization of the integration of technology and the humanities. The basis of innovation is the perspective of subject integration, the integration and deconstruction of prior knowledge, the maximization of learner subjectivity and creativity, and the promotion of the inventive growth of art.

In an iterative cycle, "need to know" and "need to do" are converted into one another (Japan,Ministry of Economy, Trade and Industry, 2019). These four things are not independent of one another due to the nuanced qualities of cultural learning itself, which range from shallow to deep; nonetheless, a full-coverage curriculum system is promoted according to a specific logic, meaning that the four types of items should be taken into consideration in the curriculum design. Experience is the only method for learners to truly engage with art, comprehend it thoroughly from many angles, and recognize its creativity.

2.3 Target level: the cultivation of artistic core literacy

The goal layer is a representation of the fundamental literacy that students develop as part of project practice. Aesthetic perception, artistic expression, creative activity, and cultural awareness are the four basic abilities listed in the proposed Art Curriculum Standards. The capacity to recognize, experience, comprehend, and react to the qualities of beauty in nature, social interaction, and works of art, as well as their significance and purpose, forms the foundation of aesthetic perception and art learning. Artistic expression is a necessary skill for engaging in creative endeavors. It is the capacity to really produce artistic imagery, articulate ideas and emotions, and demonstrate aesthetic beauty. The capacity to thoroughly use diverse knowledge, closely link with real life, and carry out artistic creativity and practical application are all demonstrated in creative practice, which is a concentrated manifestation of learners' inventive awareness and creative talent. Cultural awareness is the ability to recognize, grasp, and interpret the humanistic significance of works of art in a particular cultural context, and it leads the aforementioned three attributes with the proper values. At first glance, the four core competencies may appear to correspond to the four components of the theoretical model for the interdisciplinary integration of art courses under the guidance of core competencies, but just as the four components are not independent teaching units, so too are the four core competencies. Throughout the duration of the course.

3 Curriculum Design and Implementation: "This Letter Comes Coincidentally" Project-Based Learning in Middle School Music as an Example

3.1 content design

3.1.1 Theme Analysis and Question Design

The teaching theme is taken from the second volume of the middle school's "Beijing Opera and Kunqu Opera" music textbook for eighth graders, in which the Wei State and the Shu State clashed and the general of the Shu State, Huang Zhong, used cunning tactics to take control of Dingjunshan, a crucial military outpost for the Wei State. The circumstance is described by the author using the aria's title, and the queries are, "Where did this letter come from?" It helps students navigate tricky circumstances, reduces the gap between them and traditional culture, and brings them closer to the exciting world of college life. Using "This Letter Comes Coincidentally" as the "introduction letter" between students and the traditional culture of Peking Opera, it guides students through a series of project-based learning activities, ranging from simple to in-depth, so that they can methodically comprehend all facets of Peking Opera and gradually think and explore. The main topic of the course, how to inherit and develop traditional culture, is guided by how to conserve, innovate, and promote Peking Opera.

3.1.2 Learner analysis

The eighth graders in the middle school are the teaching subjects. We attempt to educate in the upper stages of primary school (grades 5-6) since pupils' physical and mental development is often advanced. (1) Students in this age range are at a turning point in their thinking development, where logical reasoning is concerned. On the one hand, dialectical and abstract logical reasoning have advanced, but on the other, they still rely on intuitive cognition. (2) In terms of mastering the previously acquired knowledge, students have further deepened and developed their aesthetic perception and artistic expression of artistic works, and traditional culture has always been an important motif of education throughout the teaching of various subjects, but for this The subject of the course, "Peking Opera", is rarely covered, and this is the first time for students to come into contact with and understand the culture of Peking Opera. (3) When it comes to information technology literacy, kids have a lot of experience integrating information into their learning, are comfortable with the fundamentals of using devices like computers and tablets, and have specific technical knowledge.

3.1.3 Learner analysis

Because it is an interdisciplinary study, when analyzing the curriculum objectives, it also considers the analysis from multiple angles. It should be noted that the curriculum objectives and project objectives belong to the relationship of being included, so the following objectives are all based on the overall curriculum objectives Explanation:

Knowledge and skills: After appreciating and performing the aria from "This Letter Comes Coincidentally" from the Peking Opera, learn more about the costumes, makeup techniques, and "scenes" (accompaniment) in the opera. Learn how to make modern and traditional Peking Opera music using the sequence approach, and then mix it with Live2D animation to create Peking Opera animation short plays.

Process and methodology: Through appreciation experiences, performance training, inquiry learning, and innovative creation of four types of project-based learning, students will gradually understand all facets of the works and Peking Opera art. Big data and cloud platforms will also be used to provide electronic schoolbags during the project promotion process. To conceive of scenarios, dissect music, and produce works, use tools such as live2D, LogicPro, GarageBand, and others.

Emotions, attitudes, and values: As students progress from a superficial to a profound grasp of the Peking Opera art form, they come to appreciate its distinctive attractiveness as a traditional culture and develop a passion for information about it. Students gain a feeling of duty to preserve and pass on the Peking Opera art form and to revitalize Peking Opera with original works as they learn arias and Peking Opera culture.

3.2 Curriculum Design and Implementation

Figure 3 depicts the project's concept and implementation for the "This Letter Comes Coincidentally" course.

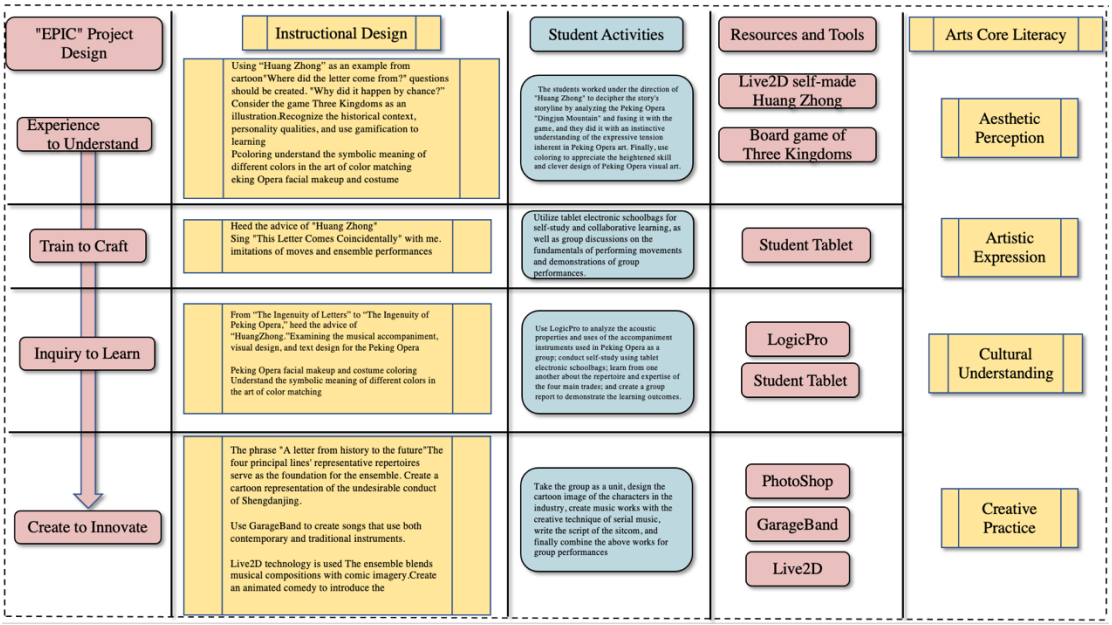

Fig.3 Curriculum Design and Implementation

4 Summary and thinking

4.1 Interdisciplinary integration is both a method of instruction and a subject matter.

In order to incorporate music, art, and dance into project-based learning, this series of courses draws on the STEAM teaching model. It also incorporates engineering, science, technology, and other science and engineering disciplines as teaching content and constructs it from a variety of cultural themes and material forms that make up culture. The dual-teacher classroom makes the situation more effective by utilizing the teaching method of information technology integration. Text, video, and audio materials for students to learn are uploaded on the e-book cloud platform, and the evaluation mode adopts real-time big data analysis. A number of cutting-edge technical production techniques for music and art are employed to provide Peking Opera, a traditional culture, a new period of expressive tension, making the experience richer and the guidance more vivid and exciting.

4.2 Adopt a project-based scaffolding curriculum to encourage students' core artistic literacy to improve on all fronts.

The EPIC framework's project-based design incorporates the development of basic literacy into each activity using a learning approach that ranges from shallow to deep, intuitive to abstract, and learning to creativity. Students enjoy "Dingjun Mountain" as a whole in the appreciation experience project, and on this basis, game learning is used to sort out the plot and practice students' generalization skills. Diverse artistic disciplines, including music, dance, and fine arts, are integrated during the performance training session and are no longer restricted to just one aspect of Peking Opera. Peking Opera performances are presented from many perspectives, which improves the capacity for aesthetic awareness and creative expression. Students are encouraged to independently research the history and knowledge of the Peking Opera as part of the inquiry learning project using the problem-driven approach, which also helps them gain a deeper understanding of traditional culture. The innovation and creativity project is task-driven, combines many disciplines and gained information to present creative works of art, realizes the closed loop from "need to know" to "need to do", and realizes individual imagination and collective in group cooperation. The combination of creativity enhances pupils' capacity for practical innovation.

In response to the revision of the national curriculum and the incorporation of information technology into the

author's real teaching, the author took the audacious decision to conduct this study. The research is not excellent enough because of the constraints of the study object, the research environment, and other considerations. Long-term and in-depth application and effect assessment in the teaching of interdisciplinary art courses are required in future study.

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