

THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS



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THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS



A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF EDUCATION (Ed.D. (Arts Education))

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THE DISSERTATION TITLED

THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS

ΒY

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In recent years, driven by strong national policies, the early childhood care program has rapidly developed as an emerging field within vocational education. The implementation of policies such as the "14th Five-Year Plan for the Development and Enhancement of Early Childhood Education" has brought significant progress to the early childhood education sector while providing clear direction for the construction of early childhood care programs in vocational schools. This program aims to cultivate high-quality childcare professionals who meet societal demands. However, during its initial stages, vocational schools face challenges in curriculum design and teaching models, including a lack of systematic guidance in course structures, a disconnect between theory and practice, and insufficient focus on the comprehensive development of students. To address these challenges, the government has introduced a series of policy documents advocating innovative teaching concepts and models, strengthening curriculum integration, and nurturing versatile technical talents to meet societal needs. With the implementation of the "1+X" diploma and vocational skill certification system, vocational schools, particularly in the early childhood care program, face opportunities and challenges in curriculum integration and interdisciplinary teaching. In this context, interdisciplinary integration has been increasingly regarded as a crucial approach to improving the quality of teaching in early childhood care programs. In particular, the integration of music courses, with their unique artistic expressiveness and comprehensive nature, can effectively enhance students' overall competencies and innovation capabilities. The organic integration of music with other disciplines not only helps students establish a well-rounded knowledge system but also improves their problem-solving and analytical abilities, thereby enhancing their competitiveness in the job market. This thesis explores the integration of music courses into early childhood care curricula by constructing a scientifically sound teaching model to promote the comprehensive development of students, aligning with the societal demand for versatile childcare professionals. First, it analyzes the deficiencies in aligning teaching models with societal needs in the early childhood care program and emphasizes the importance of music education in early childhood education. As a unique art form, music not only stimulates students' learning interest but also fosters their aesthetic appreciation, creativity, and interdisciplinary thinking Second, drawing on multiple intelligences theory, the 5E instructional model, and Fogarty's curriculum integration theory, this thesis proposes a teaching model framework based on the integration of music. The aim is to enhance students' interdisciplinary thinking and problem-solving abilities through cross-disciplinary interaction and integration. Through an analysis of questionnaire and interview data, this thesis further reveals the actual needs and challenges of integrating music into early childhood care curricula and provides practical suggestions for teaching practices. Finally, with expert evaluations of the applicability of the teaching model, the research demonstrates that the integration of music courses significantly enriches the teaching content of early childhood care programs, improves students' professional competitiveness, and offers new directions and insights for future curriculum reform and talent cultivation.

Keyword : Early childhood care program, music education, curriculum integration, interdisciplinary teaching, multiple intelligences

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CHAPTER 1 INTRODUCTION

1.1 Background

1.1.1 Policy orientation for high-quality early childhood care

With the adjustment of fertility policies, the national preschool enrollment rate has increased compared to previous levels. In the report issued by the Ministry of Education and eight other departments, titled "14th Five-Year Plan for the Development and Enhancement of Early Childhood Education" (Education Foundation [2021] No. 8), it was stated: "Further improve the universal and inclusive access to early childhood education. By 2025, the gross enrollment rate for three years of preschool nationwide will reach over 90%, and the coverage of inclusive kindergartens will exceed 85%." Driven by societal demands and national policy guidance, China's early childhood education sector has entered a fast track of unprecedented development. Public kindergartens and inclusive private kindergartens are thriving across the country. While the nation is vigorously developing early childhood education and introducing a series of related laws and regulations, improving the quality of education has become imperative. Kindergartens urgently require a cohort of preschool teachers with strong vocational skills, professional competence, and high service standards to expand the teaching workforce and promote the sustainable development of early childhood education(He, 2021).

To address the demand for high-quality early childhood care, the State Council issued the "Opinions on Current Development of Preschool Education" (State Council [2010] No. 41) and the Ministry of Education, along with three other departments, published the "Opinions on Implementing the Third Phase of the Preschool Education Action Plan" (Education Foundation [2017] No. 3), both of which highlight the importance of "improving the quality of care and education." In March 2021, the Ministry of Education issued the "Vocational Education Professional Catalogue (2021)" (Vocational Education [2021] No. 2), announcing a new professional directory for secondary vocational schools. This reform abolished the preschool education

program in vocational schools and designated the early childhood care program as the only education-related specialty.

Vocational schools' preschool education programs have since entered a transitional phase, with the original preschool education programs being restructured into early childhood care programs, emphasizing the training of childcare workers (Hong, 2022). Vocational schools nationwide have begun improving talent cultivation plans for the early childhood care program, exploring multiple avenues for its development(Xin, 2022b). However, during this early stage of transition, the talent cultivation and teaching models of vocational schools' early childhood care programs remain in an exploratory phase. Current challenges include a lack of guidance in curriculum structure, a severe disconnect between theoretical and practical courses, and misalignment with societal needs for early childhood care professionals(Liu, 2021),Students in the early childhood care program struggle to effectively apply their school-acquired knowledge to current employment trends (Hong, 2022).

In its guidance on talent cultivation for the early childhood care program, the Ministry of Education encourages the innovation of teaching concepts, methods, and models, aiming to nurture a cohort of highly skilled professionals with strong comprehensive abilities and high levels of professionalization and vocational competency. This is essential to meet the societal demand for high-quality development in the early childhood care field(He, 2021).

1.1.2 Interdisciplinary integration is a key requirement for the development of the early childhood care program.

With societal development, the standards for talent in enterprises have shifted towards interdisciplinary and versatile skills. The Ministry of Education's *"Guidelines for the Development and Implementation of Talent Cultivation Plans in Vocational Colleges"* ([2019] No. 13) and the *"Implementation Plan for the Reform of National Vocational Education"* ([2019] No. 11) emphasize the need to foster an all-rounded talent cultivation system that integrates moral, intellectual, physical, aesthetic, and labor education. These documents highlight the distinctive features of vocational education, advocating for deep integration of industry and education, school-enterprise

cooperation, and the reform of teaching materials, teachers, and teaching methods. They also encourage the adoption of innovative teaching models to accelerate the development of versatile technical talents. Single-discipline knowledge and occupational skills are insufficient to meet the demands of modern workplaces (Wang, 2024). The Ministry of Education, in collaboration with the National Development and Reform Commission, the Ministry of Finance, and the State Administration for Market Regulation, jointly issued the *"Pilot Scheme for Implementing the Diploma + Several Vocational Skills Certificates System in Vocational Colleges"* ([2019] No. 6). This initiative, known as the "1+X" certificate system, encourages students to develop multiple vocational skills alongside their academic qualifications, advocating for the integration of professional and practical capabilities.

The implementation of the "1+X" certificate system presents new challenges and requirements for teaching materials, teachers, and teaching methods. Teaching materials must align with the content of vocational skills certification exams. Teachers need to possess both theoretical and practical skills, achieving "dual-qualification" status by mastering professional skills and participating in vocational skills assessments. In terms of teaching methods, student-centered approaches must be emphasized, fostering classroom innovation through case-based teaching, blended learning, and project-based instruction that integrates academic education with vocational(wang, 2023)certification content(Wang, 2024).

For students in the early childhood care program in vocational schools, acquiring not only the childcare worker vocational skills certification but also additional vocational skills certificates is crucial. This enriches their practical experience and professional skills, better meeting the industry's demand for interdisciplinary and versatile talen(wang, 2023).. The Ministry of Education's *"Notice on the Issuance of Guidelines for the Evaluation of Early Childhood Care and Education Quality"* ([2022] No. 1) emphasizes the importance of holistic development in children's learning and growth. This includes fostering health, language, social, scientific, and artistic

competencies, serving as an important guideline for evaluating whether early childhood care teachers meet quality standards in their teaching processes.

The integrated, activity-based, and life-centered nature of kindergarten curricula(Bai, 2022), reflects the need for holistic child development. As a talent reserve for early childhood education, the early childhood care program must prepare its students to adapt to children's comprehensive development needs, requiring both well-rounded competencies and curriculum integration abilities. This issue has garnered widespread attention in the field of early childhood education.

The Ministry of Education's "Opinions on Deepening Curriculum Reform to Implement the Fundamental Task of Moral Education" ([2014] No. 4) highlights the need to maximize the unique educational functions of individual disciplines while leveraging their integrated educational potential. The document calls for interdisciplinary thematic teaching activities, organically integrating the content of related disciplines to enhance students' abilities to analyze and solve problems comprehensively. This emphasis underscores the importance of interdisciplinary integration in education.

As interdisciplinary education trends rise, integrating disciplines not only allows students to construct a well-rounded knowledge system but also broadens their perspectives and enhances their overall competencies. Effective interdisciplinary integration helps early childhood care program students uncover patterns and connections between different disciplines, build a robust knowledge system, and improve their holistic qualities. This prepares them to apply theoretical knowledge comprehensively, enhances their employability, and expands their opportunities for further education, aligning better with industry demands and supporting their career development.

However, current curriculum teaching in the early childhood care program largely focuses on single disciplines, rarely establishing connections between subjects. This leads to narrow thinking and a lack of integrative knowledge skills among students. Additionally, students often lack awareness of career development, fail to recognize the relationship between holistic development and their future careers, and demonstrate low engagement and motivation for self-improvement during coursework. These issues ultimately hinder the comprehensive enhancement of their competencies (Wei, 2024), and their ability to meet the requirements for holistic child development in education. Strengthening interdisciplinary integration is therefore a necessary trend for developing the comprehensive qualities of early childhood care program students (Li, 2020; Zhao, 2018).

1.1.3 The Role of Music-Based Interdisciplinary Integration in Promoting Vocational Education

The Ministry of Education's Office issued the *Guidelines for Teaching Public Art Courses in Secondary Vocational Schools* ([2013] No. 2), which emphasizes that students in vocational schools should understand the forms, aesthetic characteristics, and interconnections of various art types. The goals include fostering students' interest in art appreciation, equipping them with the basic methods for appreciating and creating art, improving their ability to analyze and evaluate artistic works, and enhancing their creative potential. This approach aims to elevate students' comprehensive skills, develop logical thinking, and raise their awareness of improving quality of life (C. Guo, 2019).

The Standards for Vocational School Art Courses outline the requirements for content implementation, suggesting that vocational students should explore the connections between music, other art disciplines, and their chosen fields of study. These standards encourage the integration of music into societal, professional, and vocational applications to inspire creativity. The guidelines emphasize curriculum alignment, integration between artistic disciplines, and connection with cultural and professional courses. Art courses should focus on themes related to social and professional fields, creating teaching scenarios linked to industry demands. Students are encouraged to use artistic knowledge and skills in real or simulated work environments to solve practical problems, supporting their career development. The *Standards* recognize the necessity of interdisciplinary integration in music education.

Howard Gardner's *Theory of Multiple Intelligences* highlights that human potential includes visual-spatial, musical, kinesthetic, interpersonal, and intrapersonal

intelligences. While these intelligences function collaboratively, they also operate independently. Gardner emphasizes that "musical intelligence has a broader pathway in the brain than linguistic or spatial skills" (Luo, 2021c). Music is integral to early childhood care, helping teachers stimulate children's brains, nurture their emotions, and cultivate behavioral habits (He, 2021). During the sensitive period from 0 to 6 years, children exhibit a strong desire to explore and engage with music. The Montessori method employs musical line-walking activities, such as guiding children to walk while holding objects or playing musical instruments. These activities enhance children's coordination, control, and balance, while improving auditory sensitivity through exposure to various sounds(Zhang, 2020).

Douglas studied the impact of music on children's spelling, vocabulary, reading, and rhythm recognition. His findings demonstrated that music education significantly improves children's reading abilities(Douglas, 1998). Similarly, Xue Lin noted that ages 4-5 are critical for developing creative thinking(Lin, 2023). Research on the neural mechanisms of creativity indicates that musical stimulation activates the brain's right hemisphere, fostering creativity. Given music's significant role in children's physical and mental development, current vocational programs for early childhood care emphasize cultivating musical literacy. As pre-service educators, their musical proficiency directly affects the quality of early childhood education(Xin, 2022b).

Building bridges between music and other disciplines provides students with diverse perspectives, enhances knowledge integration, and expands their horizons. This approach fosters innovation, practical skills, and the ability to synthesize knowledge from different fields, improving problem-solving capabilities and enabling multidimensional solutions (Ren, 2023). Early childhood education aims to nurture wellrounded development, requiring pre-service teachers to adopt interdisciplinary thinking and enhance their overall competence to better serve children's needs (Fogarty, 2004). Integrating music into vocational school curricula also broadens students' career prospects and offers multiple pathways for further education(Du, 2022).

In conclusion, with national attention and support, early childhood care has emerged as a key area in modern education. Vocational schools have embraced the mission of cultivating high-quality professionals for this field. However, during its early stages, challenges such as the lack of mature training programs and limited teaching models have hindered students' ability to meet societal demands. This calls for further research and improvement. Given the interdisciplinary nature of music, this study aims to integrate music into vocational school curricula for early childhood care, constructing a scientifically sound teaching model. This approach seeks to cultivate students' comprehensive skills, transforming them into versatile professionals capable of meeting the high-quality demands of early childhood care in today's society.

1.2 Research questions

1.2.1 What is the current state of teaching models in vocational schools' early childhood care programs, and how do they align with societal needs?

1.2.2 How can a teaching model that integrates music into early childhood care courses be constructed?

1.2.3 Can a music-integrated teaching model for early childhood care courses enable students to meet the demands of contemporary social development?

1.2.4 Can a music-integrated teaching model for early childhood care courses achieve the national goal of cultivating multidisciplinary talents in early childhood care?

1.3 Objectives of the study

Depending on the problem to be solved, this study will focus on three objectives:

1.3.1 To learn and analyze the current situation of the implementation of the teaching model of the early childhood care profession and the needs of society.

1.3.2 To construct a teaching model based on the compulsory courses of early childhood care based on music integration.

1.3.3 To validate the teaching model of music integrated with the compulsory courses of early childhood care.

1.4 Significant of the study

In terms of theoretical significance, firstly, as a new major in vocational schools, there is a vacancy in related research, and there are even fewer studies related to interdisciplinary teaching mode. Through the research of this topic, the theory of this field can be enriched through the main line of music, and provide reference for the interdisciplinary research of music and early childhood care and the subsequent interdisciplinary research of other art subjects. Secondly, by exploring the application of interdisciplinarity in the field of music, the theoretical basis of music education can be enriched, and theoretical support can be provided for the future application of music integration practice teaching activities for early childhood care students.

Based on the current situation of the cultivation of professional talents in vocational schools and the current social needs, this study found a feasible teaching mode of music integration of compulsory courses in early childhood care, optimized the discipline integration teaching mode suitable for early childhood care in vocational schools, closely linked the theory and practice of early childhood care, and improved the mastery strategy of students' professional compulsory courses. Through the research of interdisciplinary teaching mode, we can not only expand the range of further education and employment options for students majoring in childcare in vocational schools, but also improve the comprehensive application ability and employment competitiveness of professional knowledge of childcare in vocational schools, which is conducive to connecting the later teaching practice courses and adapting to the real social teaching practice. It is of great significance to cultivate innovative and compound conservation talents that meet the needs of the development of the times.

1.5 Scope of the study

1.5.1 Geographical scope: 12 construction units of the "three projects" of Chengdu secondary vocational schools

1.5.2 Grade Range: 3rd graders

1.5.3 Content Scope:

Music content: The "14th Five-Year Plan" teaching material content of the national public basic art course (music) in vocational schools, including four parts: singing, instrumental music, musicals, and dance music (class hours: 2 classes per week; 36 class hours per semester; each 72 class hours in the academic year; equivalent to 216 class hours in total).

Integrated subject content: The required courses for the early childhood care major include 10 courses: early childhood care knowledge, care of 0-3-year-old children, early childhood hygiene and health care, early childhood literature appreciation and expression, kindergarten games, early childhood art appreciation and practice (dance), early childhood education Activity design and guidance, childcare teacher speaking and communication, Montessori teaching method, kindergarten environmentally innovative design.

First of all, the total population of Sichuan Provincial People's Government has grown steadily. At the end of 2020, the province's permanent population was 83.675 million, ranking fifth in the country. Population growth continues to slow down, and fertility support policies need to be improved urgently. According to statistics released by the Sichuan Provincial Department of Education in 2021, there are 13,400 kindergartens in the province. There are 2.6176 million children in kindergartens, including 2.2442 million children in inclusive kindergartens. The coverage rate of inclusive kindergartens reaches 85.73%. There are 158,100 full-time teachers in preschool education. The gross enrollment rate of preschool education is 91.7%. In response to the national three-child opening policy, Sichuan Province has implemented and optimized supporting education services, and the province has actively carried out demonstration and construction actions for infant care services. Chengdu, the capital of Sichuan Province, is actively creating a national model city for infant care services. Through the implementation of the high-quality kindergarten doubling plan, more than 200 new municipal first-level kindergartens have been added. The number of highquality kindergartens has doubled on the basis of 2020, and the coverage of highquality preschool education has increased year by year. To improve, there is an urgent need for high-quality early childhood education resources.

Secondly, according to the announcement issued by Sichuan Province on schools and majors with secondary vocational education enrollment qualifications in 2023, Sichuan Province has 428 schools with secondary vocational education enrollment qualifications. Among them, there are 349 vocational schools managed by the education department, and 106 secondary vocational schools in Sichuan Province that include childcare majors. The childcare major accounts for about 30% of the province's majors, which is the highest proportion among all majors set up in vocational schools. professionalism. Among them, Chengdu has a total of 23 secondary vocational schools with child care majors. Chengdu is building a "three projects" (famous schools, famous majors, famous practical training bases) schools with a total of 12 schools with child care majors, accounting for about 30%. Ranked first in the province for the proportion of conservation majors. Child care majors account for about 50% of Chengdu's top three engineering construction schools (Chengdu has the largest proportion of famous schools, famous majors, and famous practical training bases in Sichuan Province. There are 12 "three" engineering schools with child care majors. Institute), this shows the importance of the early childhood care profession in Chengdu, the capital city of Sichuan Province, so this study chose Chengdu as the geographical scope.

1.6 Definition of terms

1.6.1 Early Childhood Care programs

The early childhood care program in this study primarily refers to preservice early education and care personnel who provide "Early Years and Child Care" services for children aged 0-6 years. This program is offered at the secondary vocational school level with a three-year curriculum. The corresponding positions include early childhood caregivers, infant care specialists, and teachers in early childhood education institutions. Graduates may further their studies in higher vocational schools in fields such as preschool education, early education, infant and toddler care, and early childhood arts education.

1.6.2 Vocational school

"Vocational schools" primarily refer to various types of vocational institutions that are established and approved by government authorities to provide full-time secondary education. In this study, "vocational schools" refers specifically to secondary vocational schools that offer early childhood care programs. "Vocational schools" primarily refer to various types of vocational institutions that are established and approved by government authorities to provide full-time secondary education. In this study, "vocational schools" refers specifically to secondary vocational schools that offer early childhood care programs.

1.6.3 Musical integration

"Music integration" refers to the fusion of music courses from the public compulsory arts curriculum in the early childhood care program with ten core courses from the professional curriculum of early childhood care. This approach guides students to integrate music into the four major thematic areas of early childhood activities: children's life, learning, play, and physical activity. Through interdisciplinary integration of content and thinking, as well as the guidance of teaching integration procedures and strategies, students are encouraged to use music to solve practical issues in early childhood care from multiple dimensions, thus adapting to the diverse demands of social competition.

1.6.4 Teaching model

The teaching model in this study refers to the framework of teaching activities and music integration procedures for the compulsory courses in the early childhood care program, established under the guidance of certain teaching philosophies or theories. It includes the theoretical foundation, teaching objectives, teaching procedures, teaching strategies, and teaching evaluation.

1.7 Conceptual framework

1.7.1 Theory of Multiple Intelligences(H.Gardner1983)

The teaching objectives of the music integration teaching model are guided by interdisciplinary thinking from multiple intelligences theory and the comprehensive quality requirements outlined in the national vocational school curriculum standards. This approach aims to promote students' ability to solve problems from multiple dimensions through interdisciplinary thinking.

1.7.2 BSCS 5E Model (BSCS 1988)

The steps of the music integration teaching model are guided by Engagement, Exploration, Explanation, Elaboration, and Evaluation. This approach encourages students to transfer knowledge and enhance their comprehensive quality through the music-based teaching process.

1.7.3.Fogarty Curriculum Integration Model (Robin Fogarty 1997)

Based on music, the shared model, webbed model, and integrated model are used to integrate the early childhood education curriculum, guiding the operational strategies within the music-based teaching model. This approach helps students expand the diversity of their thinking and the integration of knowledge management during the curriculum fusion process, thereby developing the ability to apply knowledge comprehensively and enhancing their adaptability in the job market.



Figure 1 Fogarty Curriculum Integration Model

CHAPTER 2 LITERATURE REVIEW

Through a large number of literature readings on topics related to early childhood care in China and abroad, this chapter summarizes the basic views and methods of the same kind, and the following are the six parts of my article that I have sorted out through reading the literature, namely early childhood care, vocational schools, subject integration, teaching models, multiple intelligences theory, Fogarty curriculum integration model theory, BSCS 5E teaching model theory, and the current status of literature research.

2.1 Early Childhood Care

2.1.1 Childcare concept

The Canadian government defines "early childhood care" as "providing firstlevel care and education services for children aged 0-6." According to relevant Canadian government documents, the concept of "early childhood care" is described as "providing a safe, caring, play-based learning environment for children, fostering their physical health, social, emotional, and cognitive development." It also includes providing appropriate interventions and services for children in need, helping them and their families transition smoothly into the school education system, ensuring seamless connections between families and children (the country with the highest education investment ratio and a well-developed caregiver training system) (Jiang, 2021).

In the United States, early childhood care and education (ECCE) are integrated, serving children from birth to the age set by the state for mandatory schooling, typically the 0-5 age range. One of the primary systems in U.S. early childhood care and education is the child care service purchase system, funded by federal and state governments, which buys services from qualified private childcare centers and family care institutions to support care and education for infants, preschool children, and after-school care for school-age children. The second system involves the public school system of each state and locality, which primarily implements compulsory education but also offers preschool education programs and after-school care programs. Public school kindergartens and pre-kindergarten education are important forms of early education and care directly provided by state and local governments (Zhou, 2021).

In Malaysia, scholar Rahmatullah defines early childhood care and education as providing care and education for children aged 0-6 in the article "Overview of Early Childhood Care and Education in Malaysia" (Rahmatullah et al., 2021).

The Chinese Ministry of Education's "Guidelines for Kindergarten Education" clearly states that kindergarten care work is an important part of kindergarten education and an essential guarantee for promoting the overall development of children. Early childhood care refers to a series of educational measures that provide children with a good living and educational environment, promoting their physical and mental health development. The goal of early childhood care is to cultivate good living habits, hygiene habits, behavior habits, and social skills, laying a solid foundation for children's future development.

In summary, based on the above definitions of early childhood care, this study aligns with China's modern definition of care. It refers to a series of activities aimed at nurturing good living habits, hygiene habits, behavior habits, and social skills for children aged 0-6, providing detailed care and education for the physical and mental health development of children.

2.1.2 Early Childhood Care programs

Chinese scholar Yuming Hong defines the early childhood care profession as one implemented in secondary vocational schools with a three-year basic education system, aimed at training professionals with the ability to provide childcare and health care in institutions such as nurseries and kindergartens(He, 2021).

Chinese scholar Yu Wang defines the early childhood care profession as one that creates a favorable environment and provides good material conditions and meticulous care for children to better promote their physical development and ensure their healthy growth. Early childhood education, on the other hand, is based on the growth and cognitive development of children, effectively developing their cognitive, emotional, and skill abilities, fostering good behavior habits and attitudes, enhancing knowledge and hands-on practical skills, and promoting the integration of care and education for the development of children. This profession integrates courses on child psychology, care and education, child nutrition, and hygiene according to the principle of developing both moral integrity and professional skills. It aims to train high-quality workers with good professional ethics and rich knowledge to engage in basic child care, health care, self-care training, and assist in educational work in kindergartens, social welfare institutions, and other settings. The main job categories for early childhood care professionals are caregivers and infant care workers. Caregivers typically work in various kinds of kindergartens and child welfare institutions and can obtain elementary or intermediate caregiver qualification certificates. Infant care workers mainly work in early education institutions and family-based childcare, and can obtain elementary or intermediate qualification certificates for infant care (Wang, 2024).

In 2021, the Ministry of Education in China officially adjusted the early childhood care profession to a national emerging profession under vocational education reform, making it the only teacher-training profession in vocational schools (Huijin Liu, 2022). According to the modern concept of early childhood education, "early childhood care" encompasses both psychological and physiological dimensions. First, it focuses on protecting and caring for children's physical and mental health, preventing their development from being adversely affected, and ensuring their healthy growth. Second, it promotes and enhances their physical and psychological functions, ensuring the proper development of both. This approach follows the modern educational concept of combining care and education integrating both caregiving and teaching. Caregivers must not only master relevant professional knowledge for providing care to children aged 0-6, but also develop educational and teaching skills in their professional field. This reflects the modern educational concept of holistic development and meets the practical needs of future society and talent development.

The training goal for professionals in the early childhood care field is to cultivate individuals who are well-rounded in physical, intellectual, moral, aesthetic, and labor development, possess modern knowledge in early childhood care and education theory, and can apply this knowledge according to the physiological and psychological characteristics of children. They must have strong professional ethics, be skilled in all aspects of early childhood care, possess a certain level of cultural and artistic literacy, good organizational, management, and interpersonal skills, and be mentally healthy, responsible, and able to express themselves effectively. These professionals should be able to independently carry out infant and toddler care work and assist teachers in organizing educational activities, with a solid foundation for further study in relevant professional fields (Yang, 2020).

This study's definition of the early childhood care profession aligns with China's modern understanding of care. Caregivers need to master knowledge related to childcare and possess professional teaching skills in their field. This reflects the modern concept of comprehensive development and the practical demands of future society and talent development. As an emerging national profession in 2021, early childhood care in China focuses on children aged 0-6 and provides education and care, training professionals through vocational theoretical and skill learning, who can meet the demands of modern society for early childhood caregivers and early education professionals. The related positions include early childhood caregivers, infant care workers, and early childhood education teachers. Students in this field can advance to higher vocational education programs in preschool education, early education, infant and toddler care, and early childhood art education. Given the significant impact of music on young children, early childhood educators need to possess music skills. The integration of music with early childhood education knowledge can help educators adapt to their roles and improve their competitiveness in the workforce.

2.1.3 Art curriculum standards for early childhood care programs

The United States promulgated the latest "National Core Arts Curriculum Standards" in 2014, which carried out the overall design and planning of the five major art courses of "visual arts, music, dance, drama, and media arts". The "National Core Arts Curriculum Standards" (hereinafter referred to as the "Standards") were initiated and formulated by the National Coalition for Core Arts Standards (NCCAS), and were compiled by dance, media arts, music, drama, and visual arts. Developed jointly by the team. It provides a detailed explanation of the concepts and goals, course structure and content, academic results and course evaluation.

The main concepts and goals are to have artistic literacy, be able to create and express independently, and be able to respond, analyze and explain other people's artistic creations; have artistic creativity, expressiveness and sufficient competitiveness; as a culture, history and connection, Actively seek and appreciate works of art in different forms and styles, understand the relationship between art categories and between art and other knowledge; find happiness, inspiration and intellectual development through art: participate in local or national art construction. Through artistic literacy, subject knowledge and skills integrate emotions, attitudes or values to achieve lifelong goals in art.

In terms of course structure and content, we mainly integrate the artistic process, required knowledge and skills, evaluation models, and learning achievement standards into an organic system, and use a reverse design method to design the learning process and evaluation requirements. In academic results and course evaluation, Model Cornerstone Assessment is set up to achieve 21st century 4C skills such as critical thinking, cooperation skills, communication skills, and innovation skills. In this version of the standards, the National Core Arts Standards Alliance clearly proposed the concept of "Artistic Literacy" from the perspective of holistic education. This literacy encompasses the knowledge and understanding required for authentic participation in arts activities, which enables learners to apply arts knowledge, skills and abilities to other subjects, contexts and situations. It can be said that this is an education

and curriculum view oriented to "developing students' subject abilities". The "philosophical foundation" and "lifelong goals" of the national core art standards clarify the connotation of artistic literacy, with the purpose of leading learners to live a satisfactory life in the future or engage in active and creative artistic practice activities.

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China has written a course on early childhood art education and activity guidance in the "Curriculum Settings" column of the "Teacher Education Curriculum Standards", which clearly proposes the learning of artistic skills (including music, art, and dance). This requires that preschool education students who are future early childhood teachers must possess basic art knowledge and art skills. Emphasize the characteristics of preschool education, arrange "tailor-made" courses for it, make appropriate adjustments to the hours of professional skills courses and professional theory courses according to actual needs, and set up an independent preschool professional course system when necessary. From a psychological point of view, interest is a person's psychological characteristic that tends to recognize, study and obtain certain knowledge. It is an inner force that can promote people's pursuit of knowledge. Arouse students' interest in learning art, and other students will take the initiative to learn and feel the charm contained in art(Din, 2016). For vocational students, the teaching objectives of public art courses should be diverse and rich - starting from the cognitive dimension, so that students can become interested in art appreciation

based on their understanding of various art types; from the skills Starting from the dimension of consciousness, students can have preliminary art appreciation ability based on a certain mastery of art creation techniques and principles; starting from the dimension of consciousness, that is, improving students' comprehensive aesthetic ability through art education, extending from the scope of art education Expand, treat life with an "artistic" attitude, and achieve nourishment of life in an artistic way (Pan, 2020).

"Art Curriculum Standards for Vocational Schools" points out that the goal of art courses in secondary vocational schools is to adhere to the fundamental task of cultivating people with moral integrity and enable students to develop artistic perception, aesthetic judgment, creative expression and culture through activities such as art appreciation and practice. Understanding and other core artistic qualities. In terms of artistic literacy, early childhood care majors need to master artistic perception, aesthetic judgment, creative expression, and cultural understanding. Art perception is the feeling and recognition of the artistic language and artistic images of different art categories. Through the study and practice of this course, students can understand and master the basic knowledge and basic skills of art, understand the unique expression of art, and feel and appreciate art in life and professional situations through psychological activities such as intuition, association and imagination; aesthetics Judgment is the evaluation and judgment of the aesthetic properties of works of art and aesthetic objects in reality. Through the study and practice of this course, students can describe, analyze, explain and judge works of art and aesthetic objects in reality, feel and understand the uniqueness and diversity of beauty, form basic aesthetic abilities, and be able to consciously resist vulgarity, vulgarity, and kitsch, criticizes feudal superstition, religious infiltration, violence and other content expressed through artistic forms, and has a healthy aesthetic taste; creative expression is a creative artistic expression activity and the embodiment of students' imagination, expressiveness and creativity in various artistic practices. Through the study and practice of art courses, students can stimulate imagination, cultivate innovative consciousness and spirit, and form creative thinking in

daily life and professional situations. Combined with professional learning, learn from artistic methods and means, carry out artistic innovation, promote professional development, and improve the quality of life. Cultural understanding is to examine artistic works, artistic phenomena and artistic concepts from a cultural perspective, and to understand the humanistic connotation of art in different cultural contexts. Through the study and practice of this course, students can understand art from a cultural perspective and understand the relationship between art and culture. Understand the ideas and concepts contained in China's excellent traditional culture, revolutionary culture, and advanced socialist culture, and consciously cultivate and practice socialist core values. Adhere to dialectical materialism and historical materialism, and be good at exploring the historical and cultural value of works that reflect feudalism, capitalism, and religious content. Understand and learn from the cultures of different regions and times, enhance cultural consciousness, and strengthen cultural confidence.

The course content focuses on basic modules of music appreciation and practice to cultivate students' music aesthetic and practical abilities. It consists of music appreciation foundation and content, and music practice activities. The content of the courses is close to social practice. In addition to offering relevant courses according to social needs, schools should offer public art and music courses that meet the characteristics of students in this major according to the special design of each professional department (Shi, 2019).

Although the country has been building and revising the policy and construction curriculum of public art basic courses in secondary vocational schools in recent years, there are still many problems. The curriculum is not conducive to the development of courses based on the development needs of students and the characteristics of secondary vocational education, and then Impact on the effectiveness of public art programs. The development of secondary vocational schools is based on local economic characteristics. Objectively speaking, it must be based on the current situation of public art basic courses in secondary vocational schools, so that students can better adapt to professional skills courses through art and lay a good foundation for lifelong education(Shi, 2019).

In summary, the art curriculum standards for early childhood care majors mainly include the following aspects: Course objectives: This course aims to cultivate students' understanding and skills of art education and improve their comprehensive quality in art education practice; course content: covers art Basic theory, art skills, art appreciation and other aspects are aimed at cultivating students with the practical ability and innovative spirit required to engage in early childhood art education; curriculum implementation: focusing on the cultivation of practical operation ability, using a variety of teaching methods, such as case analysis , group discussions, practical operations, etc., to improve students' participation and learning effects; course evaluation: use a variety of evaluation methods, such as daily homework, final exams, practical activity evaluation, etc., to fully understand students' learning situation and comprehensive quality. In the specific teaching process, teachers can adjust the teaching focus according to the actual situation to ensure that students can fully master the core competencies of art subjects and early childhood art education teaching skills.

2.1.4 Related research

In the article Research on the current situation and countermeasures of the curriculum setting of nursery care in secondary vocational schools under the background of professional transformation, Yuming Hong conducted a survey on the current situation of the curriculum in the early stages of the transformation of the early childhood care profession and found that the curriculum setting is still in the preliminary exploration stage. The training goals are far from the actual demand for childcare workers in society. He believes that subject development and curriculum should be designed based on the actual needs of employers and society, and proposed corresponding countermeasures for curriculum setting (Hong, 2022).

In the article Reflections on Music Teaching in Secondary Vocational Early Childhood Care Majors, Honyan He believes that music is a very important teaching content for early childhood education. It is a key subject to cultivate children's emotions, improve their aesthetic taste and comprehensive literacy, and should be used throughout the entire early childhood education. in the system. He believes that the early childhood care major needs to establish new educational concepts, innovate teaching models, and expand teaching space; strengthen horizontal connections between disciplines; and create an autonomous learning atmosphere for students to cultivate students' multi-dimensional practical abilities and cultivate all-round early childhood education talents. The purpose is to improve students' competitiveness in the talent market (He, 2021).

In the paper "1+X "Research on the Integration of Certificate System and Secondary Vocational Child Care Talent Training Courses", Qianqian Du defined the child care profession as focusing on "care and protection" to highlight the relationship between adults and infants in infant care. Adults Secondary vocational child care talents who play the role of observers, supporters, and guides in the growth process of infants and young children use "care and education" to expand their thinking, gradually cultivate learning adaptability, and lay the foundation for the long-term development of children. Relevant vocational skills training to cultivate a group of infant care talents who can care for and protect young children, and provide early education guidance in a timely manner(Du, 2022)..

Yao Xu mentioned in "Investigation and Research on the Current Situation of Kindergarten Caregivers' Professional Competence": Kindergarten care refers to adults providing necessary and good environmental conditions for the healthy growth and physical and mental development of children under seven years old, caring for children, protecting and promoting good physical and mental development of children. Gradually improve children's ability to live independently, and these tasks are shared by all educational staff in the kindergarten. Child care workers are mainly responsible for the cleaning and disinfection of classroom equipment and environment. They manage children's lives under the guidance of class teachers and medical teachers, carry out educational and teaching activities, and strictly implement the safety and health system of kindergartens(Xu, 2019).

In the article "Analysis of Effective Paths for Teaching Music Literacy Courses - Taking Early Childhood Care Major as an Example", Jinliang Zhao studied the importance of teaching music literacy courses in early childhood care majors and explored the teaching path for creating music literacy courses for early childhood care majors. The research passed Enrich music teaching methods, clarify music teaching goals, create gamified situations, integrate role-playing teaching, expand extracurricular practical teaching, and increase music teaching content to improve students' overall musical literacy, thereby enhancing on-the-job practical ability(Zhao, 2022).

In her article "Research on the Optimization of Music Curriculum for Employment-Oriented Secondary Vocational Preschool Education Majors", Zhenyi Liu proposed that while vocational school students should learn basic music skills well, they should proceed from reality and be supported by employment-oriented education theory and work process-oriented curriculum theory. Optimize the music curriculum strategy of vocational schools, study the practical needs of kindergarten education and the actual situation of vocational education preschool education music classes, and design practical music courses to enhance students' music education practical ability and employment competitiveness(Liu, 1986)..

In "Research on the Investigation and Countermeasures of Music Knowledge and Skills in Early Childhood Care Majors", Chenlu Xing analyzed the existing distribution of student curriculum teaching content by investigating the problems existing in the talent training of early childhood care majors in Guilin Vocational Schools and the current status of implementation of music knowledge and skills. Unreasonable, weak mastery of music knowledge and skills, lack of comprehensive professional ability and other problems. In response to the problems, he proposed to develop school-based courses, encourage students to learn music knowledge and practical skills, and construct comprehensive evaluation methods and other reform strategies to improve the quality of early childhood care majors. level of
music knowledge and skills, laying a solid foundation for entering the position of preschool teacher(Xin, 2022a).

Borui Xu mentioned in the article "Research on the Training of Contemporary Canadian Childcare Workers" that the training model of Canadian childcare workers in vocational schools is mostly applied training model, with the goal of cultivating applied talents. Under the guidance of this goal, Focusing on cultivating applied talents, we formulate school-running plans based on actual conditions to achieve flexible and diverse teaching management. In order to cultivate applied talents, the connection between schools and work units often adopts the training model of school-enterprise cooperation. In the curriculum, teachers combine educational knowledge with special topics and practical work. The key consideration is what students really learn and what impact these learning contents will have on specific work. Through the project structure, course personnel and In an integrated manner, all these factors will affect the opportunities for normal students to learn knowledge, skills and values in different training projects. Newly admitted normal school students study basic education courses such as pedagogy and psychology, and then study differentiated professional courses according to different project types, such as: safety of infants and young children aged 0-3, nutritional knowledge, child psychology, etc. In addition to ordinary course content, in response to the development needs of Canada's diversified society, some early childhood teacher training projects have also added elements such as multicultural traditional knowledge and bilingual teaching into the curriculum to comprehensively train Canadian childcare workers (Xu, 2021).

Margaret S. Barrett, through the article "Music Early Learning and Development in Childcare: An Australian case study of provision and support", conducted a case study on the provision of music in Australian child care centers and found that early participation in active musical elements is beneficial to the development of young children. Beneficial, it can provide a wider range of development for young children, including literacy, numeracy, emotional regulation, motor coordination, social skills, etc. When caregivers have high-quality musical literacy and use songs as signals for children to enter new activities or routine activities, they can promote effective and rich music learning and participation in other courses (Barrett et al., 2016).

Rachel Lee Nardo and other scholars in the article "Looking Back, Looking Forward: A Report on Early childhood Music Education in Accredited American Preschools" examined the music practices, teacher music preparation and music education needs reported by early childhood professionals in the United States through a survey. Quantitative and qualitative data were collected from a survey of a random sample drawn from the National Association for the Education of Young Children's (NAEYC) accredited preschool centers database. Reflecting the diversity of music preparation among early childhood teachers, why music is used in early childhood classes, and what the music education needs are in these centres, the study proposes that early childhood educators are increasingly aware of the importance of music in early childhood education and promote music The education and early childhood professions need new models of collaboration. The research also provides suggestions for those concerned with the music education needs of young children and their teachers, that the expertise of early childhood educators can be merged with the expertise of early childhood music education, providing opportunities across disciplines for mutually beneficial learning and building in a collaborative vision. A new vision was developed to ensure that every young child has the opportunity to learn and share music (Lee Nardo et al., 2006).

Hongyan He proposed countermeasures for music teaching in early childhood care majors in "Thoughts on Music Teaching in Secondary Vocational Child Care Majors", which include establishing a new concept of education and cultivating compound early childhood education talents; strengthening the horizontal connection between disciplines and integrating music The subject and other professional subject knowledge and theories, such as early childhood education, psychology, early childhood teaching methods, etc., are proposed to flexibly apply the music knowledge learned to early childhood teaching practice, and teachers in professional skills classes will jointly discuss and formulate practical academic plans. Comprehensive proficiency test plan, a strategy for professional course teachers to collaborate with each other to complete the teaching tasks of both parties, and cultivate students to improve their comprehensive practical abilities (He, 2021).

Inkeri Ruokonen and other scholars emphasized the role of music education in early childhood education and care ECCE in the research survey "The significance of music in early childhood education and care of toddlers in Finland: an extensive observational study". A study related to music in the daily life of children aged 10 to 20, randomly observing children's participation, emotional expression, social orientation and interaction with direct caregivers. The results of the study showed that in music groups, young children showed more sustained high-intensity activities and less With lower participation or discontinuation of participation, music groups also show more positive emotions and stronger social adaptability, and young children's emphasis on music also enhances their teaching and learning environment (Ruokonen et al., 2021).

2.2 Vocational schools

2.2.1 The concept of vocational school

Vocational schools emerged in Europe at the end of the 18th century. After the mid-19th century, with the development of capitalist production, some countries established secondary education at the secondary education stage.

German vocational education is divided into primary, secondary and higher education. Vocational education belongs to secondary education and consists of "dual system" vocational schools and full-time vocational schools (including full-time vocational schools, middle colleges, junior high vocational complete schools/professional complete middle schools, Vocational high school, etc.) implementation. In 1969, the Federal Republic of Germany promulgated the basic law of vocational education - the "Federal Vocational Education Act". Vocational school students learn vocational skills in enterprises, learn professional theory and cultural knowledge in school, and receive "dual system" vocational education. The school's goal orientation In order to cultivate high-quality skilled talents, it provides Germany with strong human resources (C. Liu, 2022).

Vocational and technical education in the United States is divided into secondary and higher education stages; the secondary stage is mainly comprehensive middle schools, vocational and technical high schools and regional vocational education centers; the higher education stage is mainly community colleges, junior colleges, technical colleges and regional vocational schools and Vocational and technical schools run by factories and enterprises. Set up majors according to local needs and provide technical education, vocational education courses with academic and technical aspects (Luo Zhaohong & Wang Huaining, Dictionary of Capitalism, People's Publishing House, 1995; p. 864)

Vocational education courses in the United States are divided into academic courses and vocational courses. By improving academic standards to ensure the competitiveness of the workplace and focusing on the basics of the workplace, such as problem solving, learning to learn, and teamwork, the new vocational education trend proposes careers Education requires mastering basic oral expression skills, calculation skills and communication skills (Lewis, 2015).

The Canadian Federation of Teachers defines vocational education as education designed to teach skills and knowledge that will help graduating students obtain an education not suitable for entry-level positions required for other careers. Vocational schools are considered schools that provide young people with a pathway to skills at the high school level necessary to find employment in a technologically advanced society (Guile & Unwin, 2019)

Article 13 of the "Vocational Education Law of the People's Republic of China" stipulates: "Vocational school education is divided into elementary, secondary and higher vocational school education. Elementary and secondary vocational school education are implemented by elementary and secondary vocational schools respectively." Secondary vocational schools are secondary vocational schools. The abbreviation of school refers to a school that implements secondary education. It is currently the main body of vocational education. It mainly recruits junior high school graduates or people with equivalent academic qualifications. The basic schooling period is three years, and the degree after graduation is a technical secondary school degree.

There are currently four types of vocational schools in China. The first and second types are secondary vocational schools (hereinafter referred to as "technical secondary schools") and technical schools. These two types generally recruit junior and high school graduates as their main enrollment targets, and the academic system is mainly three-year; the third type is in the reform of education. The vocational senior high school or senior vocational high school developed during the structural process is the full name of "vocational high school" or "vocational high school". It generally has a three-year schooling system and mainly recruits junior high school graduates. Most of these schools are converted from ordinary middle schools; The fourth type is "adult secondary vocational school", which is the abbreviation of adult secondary vocational school. The schooling period is generally two or three years. It was developed after the reform and opening up. The original goal is to train adults with junior high school diplomas among working personnel to become secondary vocational schools. Technical staff (Hui Liu, 2022)_o

Based on the above explanation, this article defines vocational schools as various vocational schools established with the legal approval of relevant government departments to implement full-time secondary education, including public and private ordinary secondary vocational schools, adult secondary vocational schools, vocational high schools, and technical colleges Technical secondary schools affiliated to schools and colleges and universities, secondary vocational schools, etc. The enrollment targets of this type of school are junior high school graduates and people with the same academic qualifications as junior high schools. The basic schooling period is generally three years, and students graduate with a technical secondary school degree.

2.2.2 Vocational school talent training model

The inquiry-based learning model in the United States, and the related concepts of multiple pathways and connected learning, emerged directly from this conversation about the feasibility of career and technical education. By simultaneously providing students with opportunities to develop career skills and prepare for college, the "multiple pathways" paradigm claims to transcend the simple dichotomy between academic and vocational studies. Inquiry learning is a more complex learning method. It is a twofold learning process. Students who engage in inquiry learning must use their talents, intelligence, and judgment to do their best to solve a problem. Inquiry learning has two obvious advantages: first, all participants must actively participate in the learning process; second, inquiry learning has great flexibility, because there is no single, definite answer, and students are solving problems You must use your own intelligence in the process. In the United States, inquiry learning is a common teaching model not only in ordinary secondary schools but also in vocational schools. In inquirybased learning classes, there must be active connections between teachers and students. Teachers must allow students to freely put forward their various hypotheses or predictions, and those teachers who use inquiry methods in classroom teaching often undergo some interesting changes in their entire views and behavior: they become more and more Orient it toward the student, rather than the subject, and students will also become more cooperative. The inquiry method also has obvious shortcomings. It is a slow process to present materials to students. This process is too inefficient for completing a certain amount of teaching content. In addition, the inquiry learning model places high demands on teachers, and teachers involved in inquiry teaching must undergo very good specialized training(Tierney, 2015).

Japan's research and learning model is inseparable from educational reform and talent cultivation. In the early postwar period, Japan launched a nationwide practical movement to explore new education. In 1947, the Ministry of Education, Culture, Sports, Science and Technology of Japan promulgated the "General Syllabus (Draft)", which stipulated free research time for different grades. In 1951, Japan's Ministry of Education, Culture, Sports, Culture, Sports, Science and Technology promulgated a nationally revised syllabus, which eliminated free research time and replaced it with extracurricular activities. Unit studies were carried out, focusing on the problems faced by students, allowing students to carry out a series of studies to solve

these problems and increase life experience. Activity. Later, in 1968, 1977 and 1989, Japan revised the syllabus three times, focusing on the cultivation of students' thinking, judgment and expression, and strengthening experiential learning and problem-solving learning to enable students to adapt to social changes and Lifelong learning methods and abilities. The Japanese research learning model has many similarities with the American inquiry learning model. It promotes students' initiative and innovative spirit and prepares students for their future participation in society in terms of knowledge, thinking and skills. Providing students' free research time (extracurricular activity time) in the form of law can help fundamentally ensure the effectiveness of students' research based learning (Shi, 2019).

Germany's vocational education has always been at the forefront of the world. Germany's "dual system" vocational training refers to training in vocational schools and training in enterprises. Generally speaking, students receiving dual vocational education receive training at school for 2 days and at the company for 3 days a week. In dual-system vocational training, the knowledge and skills involved in professional basic courses are interdisciplinary. These knowledge and skills are necessary for professional job activities, but the school's training is not simply for the purpose of learning knowledge and skills, but emphasizes mastering the abilities necessary for the profession in the process of learning, and is designed according to the inherent logic of the work process. Curriculum, taking advantage of school education, gradually cultivates professional thinking forms and professional abilities. Through dual education, students have mastered the basic professional knowledge and skills required in professional activities, have certain job experience, and can skillfully complete all aspects of job activities. More importantly, dual education focuses on cultivating students' learning, problem-solving and cooperation abilities, enabling them to adapt to a variety of jobs and correctly handle the relationships between people at work. Therefore, students who graduate from dual vocational education can get into work right after leaving school (C. Liu, 2022).

Enlightenment of German dual system education to my country's secondary vocational education: By studying the dual vocational education system, we can learn valuable experience in the following aspects: First, secondary vocational schools should deal with the knowledge, skills and abilities contained in the professional activities involved in the major. It requires careful analysis, and on this basis, the requirements of the course are determined, and then the content of the course is determined. Secondly, the content of the course should be sorted, learning areas should be divided, action-oriented courses should be set, and teaching should be organized according to the action process. The currently advocated integration of work and study is undoubtedly a useful attempt to learn from the dual training system.

Germany's "action-oriented" teaching model. The action-oriented courses of German vocational training organize teaching according to the order in which knowledge exists in the work process. Students will search and explore because of the need for action, and their learning initiative will be relatively high. Once students master the steps of the work process, they also know what knowledge to query and learn, so that students can quickly solve problems independently. The project teaching method and group teaching method derived from the action-oriented teaching model have been implemented and promoted in many secondary vocational schools in my country and have achieved good results. Vocational education under the action-oriented concept aims at cultivating students' professional abilities, social abilities, learning abilities and methodological abilities. Therefore, teachers are required to have not only the knowledge and skills of their own major, but also a good understanding of the working situation and work process of the position, as well as cross-professional knowledge and skills, and good social abilities. Otherwise, teachers do not have a comprehensive understanding of the position and a relatively broad range of knowledge, so they cannot reasonably design projects and action processes, and cannot properly organize and guide students. In Germany, if a person wants to become a teacher, he needs to pass the first national examination after receiving higher education, then receive another two years of training, and pass the second national examination before he can become a

teacher. Teachers in Germany need to take two cross-professional courses. This mechanism encourages teachers to develop in a wider field. The inspiration of the action-oriented teaching model to my country's secondary vocational schools: Selecting the knowledge and skills required for the job from the subject system and then integrating them together to form a new curriculum is the progress of vocational education. Not only in Germany, but also in developed capitalist countries such as the United Kingdom and the United States, they attach great importance to curriculum integration. Students with the ability to integrate curriculum will adapt quickly to future jobs and have flexible thinking, and are very popular among companies.

China's guiding principles in the "Opinions on Developing Professional Teaching Standards for Vocational Schools" issued by the General Office of the Ministry of Education emphasize the emphasis on "learning by doing, teaching by doing", emphasizing teaching links such as practical training and internship, and highlighting the characteristics of vocational education. The training objectives and overall requirements are mainly to cultivate high-quality workers and skilled talents who are required by my country's socialist modernization construction, have all-round development morally, physically, intellectually, and aesthetically, have comprehensive professional abilities, and work on the front line of production and services. Students in vocational schools need to have good professional ethics, master necessary basic cultural knowledge, professional knowledge and relatively skilled vocational skills, have strong employability and certain entrepreneurial abilities, and also need to have the basic ability to appreciate beauty and create beauty. Each major needs to further clarify the requirements for each major according to the overall requirements of the training objectives. The evaluation requirements for whether students have achieved professional abilities are mainly carried out through diversified evaluation of evaluation subjects, evaluation methods, and evaluation processes. Pay attention to the combination of process evaluation and result evaluation, pay attention to students' understanding of knowledge and mastery of skills, and pay more attention to students' ability to use knowledge to solve practical problems in practice.

2.2.3 Related research

In the article Research on the Teaching of Secondary Vocational Music Appreciation Combined with Vocational Context, Yating Liao used music appreciation courses to conduct research on the integrated teaching of vocational context by combining the characteristics of vocational students. This paper expounds the significance of implementing music appreciation teaching in vocational schools based on professional situations, uses questionnaires, interviews, etc. to analyze the implementation of music appreciation teaching in vocational schools based on professional situations, and provides 4 teaching implementation suggestions around music appreciation teaching in vocational schools. They are: expand career-related teaching content; use situational teaching methods to carry out teaching; set up careerrelated indicators in the teaching evaluation process; teachers need to further improve relevant comprehensive qualities; finally, combine the proposed implementation suggestions to apply career situations. In the music appreciation teaching of secondary vocational schools, the integration of teaching analysis is carried out by presenting specific classroom teaching cases (Liao, 2023).

In the article Teacher qualifications for vocational education in the United States, Germany, France, Japan and other countries, Qibiao Shen introduced the implementation of a professional development plan for new teachers in vocational education. The implementation of this plan can help new teachers smoothly change their roles and provide new teachers with An effective and flexible training mechanism can be put into the teaching practice of vocational and technical education as soon as possible(Shen, 2006).

Erffineyer and Martray believe that a comprehensive understanding of the professional development of pre-service teachers in vocational schools should include the following aspects: practicing personal educational philosophy, integrating the development of educational research and teaching practice, and applying appropriate teaching in practice that meets the individual needs of students skills, and master as many teaching-related theories as possible. Improve classroom management skills, understand different cultures, use social context to evaluate teaching in new ways, and seek new ways of research resources from the local community (Erffmeyer & Martray, 1988).

Bo Jiang believes in the article Research on the multidisciplinary integrated training mode of colleges and universities to promote the employment path of college students that employability is one of the core indicators to measure the quality of higher vocational education and the social value of graduates. Research on multidisciplinary integrated training The model's role in promoting students' employment paths has important practical significance and theoretical value. This study explores the impact of the multi-disciplinary integrated training model in universities on students' employment paths, analyzes its implementation plan and actual effects, and provides theoretical support for further optimizing the talent training model and improving students' employment competitiveness. It also provides theoretical support for further optimizing the talent training model and improving students' practical effects and existing problems, and put forward targeted suggestions (Jiang, 2022).

2.3 disciplinary integration

2.3.1 The concept of disciplinary integration

The term "discipline integration" first appeared in the 1990s, due to the wave of national university mergers in higher education. The English word for interdisciplinary science is interdisciplinary Science, published in the "Yinghua Dictionary" (Business Dictionary) in 1984. Press) translates this word as "involving more than two kinds of training; involving more than two disciplines.

Since there is no unified definition of subject integration in the academic world, there are many concepts related to multidisciplinary integration, including "interdisciplinary", "interdisciplinary", "interdisciplinary connection", "curriculum integration", and "curriculum integration", "comprehensive courses", etc., although the expressions are different, their common feature is the research content between two or more disciplines (Luo, 2021a).

The famous Swiss psychologist Jean Piaget analyzed the meaning of disciplinary integration from the perspective of epistemology and the inherent "structure" of science, using a genetic perspective. He believes that the interaction between disciplines can be divided into three levels: multidisciplinary interdisciplinary or transdisciplinary. Multidisciplinary is the lowest level. It arises because in the process of solving problems, it is necessary to obtain information from two or more sciences or knowledge fields without changing or increasing the disciplinary mainly refers to the second level. At this level, cooperation between disciplines or with parts of science leads to interactions and mutual exchanges that are beneficial to all. The higher level is transdisciplinary. It not only includes the interaction and complementarity between specialized research projects, but also places these relationships in a system where fixed disciplinary boundaries no longer exist(Liu, 1986).

Peter van den Besselaar & Gaston Heimeriks believe that disciplinary integration is mainly divided into disciplinary research and non-disciplinary research, the combination of different disciplinary elements, and disciplinary research uses a shared method to study a specific set of research questions. It is the solution of normal problems within the paradigm. Non-disciplinary research refers to the interaction between two or more different disciplines to answer practical questions and solve practical problems. The scope of integration can range from the exchange of ideas, data, methods, and procedures to the mutual integration of concepts, theories, methodologies, and epistemological principles. He believes that multidisciplinary means using different disciplinary perspectives to study research topics from different angles, and the research results of each discipline are ultimately not integrated. Interdisciplinarity, on the other hand, is a more coherent and comprehensive study of a certain issue. Interdisciplinarity is defined as an interdisciplinary metacognitive theoretical perspective. Transdisciplinarity is based on shared theoretical understanding and is accompanied by a mutual deepening of disciplinary epistemologies, further integrating than interdisciplinary approaches(Van den Besselaar & Heimeriks, 2001).

Yves Lenoir believes that interdisciplinary integration is to establish complementarity or cooperation between multiple school subject courses and promote the integration of processes and knowledge from different perspectives (goals, objects, learning, concepts, learning methods, technical capabilities). In teaching practice, the teacher's role is to create conditions and select appropriate content to promote and support student learning. Students are participants in the integration and integrate the acquired knowledge by developing comprehensive cognitive processes and cognitive abilities The principles of subject integration mentioned by Yves Lenoir and Abdelkrim Hasni in their articles are:

Interdisciplinarity is impossible without disciplines. Thinking about interdisciplinarity only makes sense in the context of disciplines and "presupposes the existence of at least two reference disciplines and mutual actions"; interdisciplinarity is not based on the accumulation of simple views; education Interdisciplinarity is a means, not an end; subject integration is to promote students' integration of integration processes and integrated knowledge, as well as the adjustment and application of these elements in real life. It therefore requires teachers to establish integrated approaches rather than imposing an integrated curriculum where the integration process itself is already established; Fourth Principle: Interdisciplinarity sees all school subjects as important and complementary in constructing and understanding reality in schools Context. It is important to transcend oppositional perspectives between theory, methodology, tools and critical interdisciplinarity; this rich logic of meaning, function and emotion is complementary and should constitute one another when using interdisciplinary approaches in teaching practice; Interdisciplinarity Collaboration between teachers from different schools or subjects is required...(Lenoir & Hasni, 2016).

From the perspective of subject organization and knowledge activities, Chinese scholar Professor Liu Zhonglin believes in "Interdisciplinary Science and Interdisciplinary Education" that interdisciplinary integration is a scientific research or educational activity in which two or more disciplines break through discipline barriers(Liu, 1986).. Lu Qiwei mentioned in the article "What to Integrate in Discipline Integration" that discipline integration is mainly the integration of five aspects: subject knowledge, subject thinking, subject methods, subject ethics, and subject spirit (Q. Lu, 2020).

Fang Fu defined subject integration in the article as the integration of related subjects or content based on the comprehensive development of students, so that the course content is integrated, holistic and interactive, and closer to real life(Fu, 2016).

The disciplinary curriculum integration methods summarized by Jacobs in the book "Interdisciplinary Curriculum: Design and Implementation, 1990" mainly include the following four types:

(Discipline based content design) Discipline-based: meaning the integration of course content within the framework of the discipline. (Parallel discipline design) Parallel discipline: Arrange certain topics of two related disciplines to be taught at the same time, and give students the responsibility of establishing the relationship between the two parallel disciplines; (Multi-discipline design) Multi-discipline: Certain topics in two related subjects are taught at the same time, and the responsibility of establishing the relationship between the two parallel subjects is given to students; (Interdisciplinary units) Interdisciplinary integration: The unit breaks the original subject boundaries and integrates the school curriculum All subjects are integrated into one unit.

Hong Wei believes in the article "Promoting Teachers' Interdisciplinary Cooperation and Improving Students' Employment Competitiveness" that from the perspective of the development trend of scientific knowledge, knowledge has experienced synthesis-differentiation-integration development and is currently in a comprehensive stage based on a high degree of differentiation. The development of knowledge increasingly tends to the reference and integration between disciplines. Interdisciplinary cooperation between teachers in various disciplines of the school can better enhance students' employment competitiveness (Wei, 2016).

To sum up the above content, subject integration is not only content, but also brought to the classroom and students through subject thinking. Discipline integration is highly contextual. It does not allow students to absorb subject knowledge in a fragmented and abstract manner, but emphasizes restoring knowledge to the rich real world. Strengthening music and student professional courses can better create a contextualized learning environment for students, and flexibly solve problems through the comprehensive use of knowledge. Questions cater to China's professional standards for vocational school teaching. First of all, interdisciplinarity requires meaningful teaching situations, which are concrete and multi-dimensional based on the research and solution of real-life problems. Secondly, it is interdisciplinary. Beyond the perspective of single-disciplinary research, focus on the comprehensive understanding and solution of complex problems or topics, with clear and integrated research methods and thinking models; thirdly, the integration of disciplines must be related to the specific needs of society. Interdisciplinarity can be based on problems or projects. The approach supports the development of integrated learning processes without unconsciously using the multiple methods required for the necessary complementarity of different disciplinary perspectives to achieve this, namely conceptualization, problem solving, communication, experimentation and other methods. Finally, subject integration is the self-regulation of students' metacognition and learning, ensuring the metacognitive process necessary for students to learn effectively.

2.3.2 Theory of Multiple Intelligences

The theoretical support for subject integration mainly comes from the "Multiple Intelligence Theory" proposed by American psychologist Howard Gardner, which first appeared in his book "Frames of Mind" published in 1983. Through his "Zero Point Project" at the Harvard Graduate School of Education, he studied children's intellectual development and perfected not only language and mathematical logic intelligence, but also proposed that human potential also includes visual-spatial, musical, motor, interpersonal and self-understanding intelligence. Regarding the integrated view of intelligence, Gardner further pointed out that the seven intelligences function cooperatively but also exist independently of each other (Fogarty, 1997b).

Gardner believes that human potential includes visual-spatial, musical, motor, interpersonal and self-understanding intelligence. These seven intelligences function cooperatively but exist independently of each other. The eighth natural intelligence will be added later. The theory of multiple intelligences proposes that "musical intelligence exists in a certain area of the human brain and is used in a wider range of ways than language or spatial skills. Musical intelligence is indispensable in human potential, and everyone has different qualifications in this aspect. "Therefore, musical intelligence, which is often considered to be innate talent, can be cultivated through various channels. Art-related intelligences such as visual space, music, movement, and language do not develop independently, but are interdependent in the theory of multiple intelligences. The emphasis on balanced development of thinking is highly consistent (Fogarty, 1997b).

Gardner's multiple intelligences are considered to have the ability to find or create solutions to problems, and have the ability to collect new knowledge, create products, and provide valuable services (Gardner, 2006).

Interdisciplinary thinking and reasoning skills can mobilize multiple intelligences and combine intelligence in different ways. Thinking is the characteristic of being able to synthesize thinking and reasoning styles across multiple disciplines. This ability to synthesize must be combined with specific goals (Gardner, 2020).

Fogarty's Curriculum Integration of Multiple Intelligences and Linda Campbell's Teaching and Learning Multiple Intelligences both describe ways to add multiple intelligences to the classroom (Heming, 2008).

The definition and understanding of intelligence in the theory of multiple intelligences are different from the traditional view of intelligence. Gardner believes that intelligence is the ability that individuals need to solve real problems they encounter or to produce and create certain products under the value standards of a certain social and cultural environment. Intelligence is not an ability but a set of abilities. Intelligence does not exist in an integrated way but in an independent way.

The connotations of various intelligences in multiple intelligences are: Verbal-linguistic intelligence: refers to a person's ability to master and flexibly use language, which is manifested in thinking with words and using multiple different ways of language and words to express complex meanings; mathematical logical intelligence: Refers to a person's understanding of the relationship between logical results, reasoning, thinking and expression ability. The outstanding characteristics are the use of logical methods to solve problems, the ability to understand numbers and abstract patterns, and the application reasoning to recognize problems. Visual spatial intelligence: refers to a person's understanding of color, shape and space. The outstanding features of the correct perception and expression ability of position are the accurate perception of the visual world, the production of thinking images, the ability to think in three-dimensional space, and the ability to identify and perceive the connections between objects in space; musical rhythm intelligence: refers to human feelings, discrimination, The ability to memorize and express music, highlighted by sensitivity to non-verbal sounds in the environment, including rhythm and melody, rhythm, and pitch quality; Body movement intelligence: refers to the coordination and balance ability of the human body and the strength, speed, flexibility, etc. of movement. The prominent features are the use of the body to communicate and solve problems, skillful operation of objects and activities that require good movement skills; interpersonal communication intelligence : Refers to the sensitivity to other people's expressions, words, gestures and movements, and the ability to respond effectively to this, which is reflected in the individual's ability to perceive and experience the emotions of others and respond appropriately; Self-awareness intelligence: refers to individual understanding, insight and introspection One's own abilities, prominent features are being sensitive to one's own feelings and emotions, understanding one's own strengths and weaknesses, using one's own knowledge to guide decisions, and setting goals; natural observation intelligence: refers to observing various forms of nature to identify objects and classification, the ability to gain insight into natural or man-made systems(Gardner, 2006).

This study believes that: Gardner's practice proves that each intelligence plays a huge role in the process of human beings understanding and transforming the world, and is of equal importance. How many types of intelligence an individual has is open to debate and change. With the further development of related disciplines such as psychology and physiology, the types of multiple intelligences will likely be developed, but no two people have exactly the same intelligence profile. What is important is that we should recognize and enrich various human beings Intelligence, and combinations of intelligences. Promoting students' multiple abilities through multiple intelligence and multi-dimensional thinking has a guiding role in realizing students' interdisciplinary thinking and enabling students to solve problems and have innovative thinking.

2.3.3 Fogarty's course integration method

In the book "How to Integrate the Curricula", Chicago scholar Robin Fogarty divides curriculum integration methods into the following ten models: discrete, connected, nested, parallel, shared, network, String type, comprehensive type, integrated type, network type, each method explains different ways of course integration. She divided these models into three categories: integration within a single subject, integration across subjects, and integration of learners' internal and external minds. Its thoughts on subject curriculum integration are mainly two types: integration within a single subject and interdisciplinary integration. The principle of Fogarty's curriculum integration is to emphasize the integrity of knowledge and the diversity of teaching methods by identifying commonalities and connections in concepts, skills, attitudes, emotions, etc. across multiple disciplines. In the integration process, teachers from different subjects need to cooperate in course content selection and instructional design(Fogarty, 1997a, 2004; Fu, 2016).

In the traditional school curriculum, each subject is independent and separate. In a typical discrete curriculum, students take several subjects every day, and each subject has its own class and assignments. There is no connection between each other; Colmeeted: each subject lists the units, topics or concepts to be taught, and establishes connections between them; (nested): uses the subject content as a reference frame for skills, concepts and attitudes, and the subject and unit are the attraction Tools for learning in related fields.

Select a topic, unit or concept from the subject content, and then add several other concepts or skills related to this lesson or unit as additional teaching objectives, forming a nest of multi-level natural connections within a single subject; sequneed: different Subjects still use independent teaching, but at the same time period, different subjects focus on similar topics or content; the Shared model is a shared idea from within the subject. This model unifies conceptualization and thematic approaches, with concepts arising from shared elements rather than externally introduced themes. Topics and units from two related or unrelated topics can provide rich possibilities for integration. (Shared models are an inductive approach that emerges from a variety of specific content, whereas network or topic models use a deductive approach to identify and label shared concepts prior to unit development. Shared models look for concepts that are present in both disciplines., topics, skills, attitudes, standards, and habits of mind. Advantages over other models are ease of use and an early step toward a more comprehensive integrated model that encompasses four major disciplines. Easily schedule common planning cycles. And unlike the parallel model, the shared model can integrate concepts in asynchronous units; the Webbed model takes a theme as the core and is connected to various subjects through the theme. When students study, they will focus on this theme. The theme is a concept of universal significance., topics, questions, etc., this conceptual theme provides rich possibilities for the diversity inherent in each discipline. It has a greater interdisciplinary impact; it is more universal. Connecting topics to various subjects to form a network structure; threaded: This is a meta-curriculum curriculum integration method. It uses thinking skills, social skills, learning skills, graphic organizers, technology, multi-skills, etc. as clues to integrate different Integrate course content. For example, using "predictive skills" as a clue, you can integrate estimation in mathematics, speculation about storylines in Chinese, experimental hypotheses in natural sciences, and event development in society; integrated: In this integrated approach, interdisciplinary The themes are drawn from concepts and patterns that are common across multiple disciplines, blending different disciplines by looking for skills, concepts and attitudes that are common across disciplines. In the integrated model, teachers from different subjects are required to collaborate on instructional design. Integrated theme selection is inductive, while network-based and line-string theme selection is deductive. They first set a certain theme or important concept, and then integrate based on that theme or important concept. Course content (Fogarty, 1991).

To summarize the above, the significance of Fogarty's course integration model is to provide a systematic method to integrate course content to improve teaching effectiveness and students' learning experience. Through different curriculum integration models, teachers can better organize and present course content, help students understand the connections and differences between knowledge, and promote the integration and deepening of knowledge. In addition, Fogarty's curriculum integration model can also help students develop important qualities such as critical thinking, problem solving and innovation skills. Through interdisciplinary integration, students can be exposed to a wider range of knowledge areas, broaden their horizons, and improve their overall quality. At the same time, curriculum integration also helps cultivate students' cooperative learning and independent learning abilities, laying a solid foundation for their future learning and career development.

2.3.4 Related research

In Deepen the integration of disciplines and highlight the characteristics of vocational education, Xiaoxue Zhao believes that the intersection, penetration, and integration of disciplines in vocational schools have become an inevitable trend and a hot topic that all sectors of society pay attention to and discuss. In his article, he introduced how to integrate disciplines throughout the entire teaching process, promote the seamless connection and integration of public courses and professional culture, and realize the mutual penetration and cross-correlation of subject knowledge in "learning" and "doing" to explore the differences between various disciplines. It imparts knowledge and trains skills by integrating teaching objectives, teaching content, teaching process,

teaching evaluation, etc., cultivates students' ability to solve daily life and real-life problems, and guides students in "learning" and "doing" "Use your brain, heart, and hands" to participate in the learning process, develop its multiple intelligences, and continuously cultivate its innovative consciousness, innovative ability and innovative spirit, thereby highlighting the characteristics of vocational education(Zhao, 2018).

In Search of a Long-Awaited Consensus on Disciplinary Integration in STEM Education, David Aguilera provides a theoretical framework to unify the standards of subject integration and related teaching methods in STEM education. The author proposes the meaning of subject integration and integrated teaching methods at the education stage. Recommendations are provided for interdisciplinary research(Aguilera et al., 2021).

Inkeri Ruokonen and other scholars emphasized the role of music education in early childhood education and care ECCE in the research survey "The significance of music in early childhood education and care of toddlers in Finland: an extensive observational study". A study related to music in the daily life of children aged 10 to 20, randomly observing children's participation, emotional expression, social orientation and interaction with direct caregivers. The results of the study showed that in music groups, young children showed more sustained high-intensity activities and less With higher participation or discontinuation of participation, music groups also show more positive emotions, stronger social adaptability, and young children's emphasis on music is also enhanced (Ruokonen et al., 2021).

Yan Yan's "The Enlightenment of the Concept of Subject Integration on Sight-Singing and Ear Training Teaching in Higher Vocational Music Education Majors" believes that subject integration mainly refers to the co-construction, adjustment, and reorganization of cooperation in order to maintain the advantages and characteristics of the discipline and find new growth points for the discipline. and other various collection forms (Yan, 2009). Qiwei Lu "Discipline Integration is Not Simple Interdisciplinary Education -Practice and Thinking of Discipline Integration Education" (2017) believes that subject integration is the unified and prioritized participation and intervention of multiple disciplines, through the use of multi-disciplinary resources. Intervention effectively resolves problems, enriches and expands students' learning resources and cognitive horizons, and better achieves the teaching goals of leading subjects (lu, 2017). In addition, in his article "What exactly does subject integration "integrate"" (2020), he further clarified that subject integration is an inter-education or inter-disciplinary teaching idea proposed to further target the singleness and isolation of subjects. The key lies in Looking for content that can be integrated, it is mainly integrated with the five aspects of subject knowledge, subject thinking, subject methods, subject ethics, and subject spirit (Q. Lu, 2020).

Jiaqi Xu mentioned in "The Penetration and Integration of Music Education in Children's Daily Life" that children's music education can improve children's intelligence, imagination, creativity and cultivate sentiment. Children's music education should become a part of children's life. , music should be infiltrated into children's daily life. Let children feel music all the time and experience the joy and joy that music brings to them in the process of living, learning, and playing. The author proposes an effective strategy of integrating rhythmic music into children's day-to-day activities, using themerelated music as situation creation, using soothing music to regularize children, and using active rhythms to drive children to active movements (Xu, 2023).

In "Analysis of the Implementation Path of Life-oriented Music Education in Kindergartens", Jing Guo proposed that music education should be life-oriented, music should be integrated with life themes, and various phenomena in life should be displayed in the form of music, and a life-oriented education organization method should be selected that children like. , teachers use a variety of music to guide children to establish correct social cognition and behavioral habits, and children can grow up healthily in a relaxed and pleasant music atmosphere(J. Guo, 2019).

Lin Peng's "The clever integration of musical elements in children's picture book reading" leads children to deepen the artistic conception by integrating musical elements into children's picture book reading; it incorporates singing into the picture book content to carry out picture book activities; and it incorporates music rhythm to encourage children to follow the picture book. The content uses physical perception and integration of music performances to shape children's performance abilities. The author believes that through the clever use of musical elements, it will help children deeply understand the connotation of picture book education and promote their all-round development. Adding musical elements to children's picture book reading process can effectively enhance children's reading interest (Peng, 2022).

In her article "On the Musicality of Children's Literature," Quanxia Xie proposed that children's literature is full of music. Common expressions of music include rhyme, repetition, onomatopoeia, and rhythmic arrangements. Children's literature works full of musicality present a kind of musical beauty, allowing children to be influenced by beauty and making children like children's literature (Xie, 2018).

In the paper "Research on the Effective Integration of Games and Music in Early Childhood Education", Yang Jiang explored how to let children combine in games from three aspects: understanding lyrics through role games, strengthening rhythm through rhythm games, and feeling the melody through command games. In the study of "Enjoying" playing music, "wisdom" playing games, and "integrating" learning and game activities", Xiaorui Jin proposed the method of integrating music learning and game activities to develop diversified activity forms and allow children to be independent. The form of XueZe music game activities determines the theme of the game, which is conducive to improving children's group cooperation ability. Through the combination of home and school, parents can participate in children's music game activities and enhance the parent-child relationship between parents and children. By adding musical instruments, children's music game activities can be enriched and children's desire for expression can be stimulated. It can not only increase children's

enthusiasm for learning music but also improve children's cooperation ability in the process of combining music and games (Huijin Liu, 2022).

2.4 Teaching model

2.4.1 Concept of teaching model

The first people to introduce the word model into the field of teaching were B. Joyce and M. Weil in the United States. In their book "Teaching Model", they defined the teaching model as a medium, and teachers and student teachers gain access to a variety of successful teaching methods through it. The teaching model is not only highly logical in theory, but also has a guiding role in practice. It is also the basis for professional teaching. In their book, they believe that the teaching model is a paradigm that constitutes courses and assignments, selects teaching materials, and prompts teachers' activities. The basic structure or framework of various types of teaching activities established under the guidance of certain teaching ideas or teaching theories, indicating the procedural strategy system of the teaching process. The teaching model can also be called the learning model. Teachers use the teaching model to help students form learning strategies and improve students' learning efficiency. It is divided into four types: information processing teaching model, personality development teaching model, social interaction teaching model, and behavior modification teaching model (Joyce et al., 1986).

Chinese scholar Feng Kecheng described the teaching model in four aspects in "The Complete Book of Latest Teaching Models", including: theoretical basis, teaching objectives, operating procedures, and operating strategies. Theoretical basis: that is, the guiding ideology on which the teaching model is based. It can provide a theoretical explanation for teaching activities and is the soul of the teaching model. Other aspects of the model are restricted by it to a certain extent; Teaching objectives: that is, the teaching effects that the model can achieve. Any pattern points to a certain goal, but the relationship between pattern and goal is not one-to-one. It is often a one-tomany or many-to-one relationship. Different teaching models can point to the same goal and achieve the same result; Operating procedures: the logical steps of teaching in time and the main practices of each step, etc. It is one of the essential characteristics of the model. Operational strategies: The principles, methods and techniques briefly proposed for teachers to use the model. Some of the operating strategies should be followed by teachers, but most of them are constructive suggestions for users. To a certain extent, they provide room for teachers to simulate, develop, and create using models. The above four parts are interconnected and influence each other, and each one is indispensable. They systematically constitute a complete teaching model. (Book Feng Kecheng and Tian Xiaona, The Complete Book of Latest Teaching Models [M], Beijing, International Culture Publishing Company, 1997, 387-396); Teaching evaluation: Teaching evaluation refers to a judgment on the teaching effect. The evaluation methods are self-evaluation, other evaluation and teacher evaluation.

To summarize the above experts' views on the teaching model, the teaching model in this study refers to the teaching activity framework and music fusion activity program of the music-integrated early childhood care professional course established based on music under the guidance of certain teaching ideas or certain teaching theories, including theoretical basis, Teaching objectives, teaching procedures, teaching strategies, and teaching evaluation.

2.4.2 disciplinary integration teaching model

Currently, the most widely used subject-integrated teaching model is the STEAM teaching model. In 2006, Georgette YaKman, a professor at Virginia Tech, proposed integrating Arts into STEM education, and the STEAM education concept with humanities characteristics was formally formed. Educational philosophy: STEAM education emphasizes interdisciplinary learning and focuses on cultivating students' innovative abilities, critical thinking, problem-solving abilities and teamwork abilities. By integrating art into humanities such as literature and social sciences, a comprehensive and diversified education model can be formed (Fu, 2016; Liu, 1986).

Cassie F. Quigley divided the conceptual model of STEAM teaching into two subject areas: teaching content and learning context, covering six basic dimensions in these areas. Teaching content includes dimensions such as problem-based teaching, subject integration and problem-solving skills. The field of learning environment includes dimensions such as teaching methods, assessment practices and fair participation. The elements of the STEAM teaching model include three main standards: cognitive skills, interactive skills and creative skills. In STEAM teaching, teachers support students to actively solve problems by guiding students to observe, experience, reflect and reason. Therefore, the study enables higher education and K-12 schools to consider incorporating STEAM teaching into pre-service education, professional development, and classrooms by conducting research and analyzing teacher practices to incorporate examples of STEAM teaching practices. Teaching content are two areas of the model. Teaching content includes areas related to the way teachers organize, prepare, and deliver content to students. This domain includes three dimensions: problem-based instruction, subject integration, and problem-solving skills. The first dimension of STEAM teaching is problem-based teaching. This dimension captures the ways in which teachers present problematic material from multiple disciplines or content areas by asking questions in relevant, real-world ways. Therefore, depending on how the unit is designed, students develop the ability to explain their solutions in a persuasive and logical manner(Quigley et al., 2017).

Meixu Lu believes that the teaching models of STEAM education mainly include project-based learning, problem-based learning, design-based learning, "5E learning method", etc., among which project-based learning is the most commonly used. She sorted out that project-based STEAM teaching models are mainly divided into two categories: one is a model that combines classroom and projects; the other is a model that combines activities and projects. 1. The model that combines classroom and project is based on the project and combines the curriculum standards to establish a connection between a certain subject and other subjects to form the teaching goal of STEAM. Teachers guide students to use multi-disciplinary knowledge to solve problems in real situations. Teachers can help students understand the required knowledge during classroom teaching. Students present preliminary ideas, and teachers and other students provide opinions and suggestions to form the final product or achievement. Rate and share designs. 2. A model that combines activities and projects, often in the form of extracurricular activities. Each project begins by establishing a theme that is linked to regular classroom content. During the implementation of the project, under the guidance of the theme, activity situations are constructed according to students' actual situations, so that students can be immersed in the situations and gain perceptual experience derived from real situations. The final results of the activity reflect the characteristics of the project theme as the center and the cross-integration of multidisciplinary thinking(M. Lu, 2020).

Lu Meixu divides various integrated activities according to the projectbased learning ability achieved by students, and uses themed activities to develop an integrated teaching model that is an extension of 5E. Starting from the initial perspective of subject integration, the "Classics Forever" activity that integrates music and Chinese knowledge has gradually developed into other activities that integrate multi-disciplinary content, and some experience has been gradually explored. It involves the production of musical instruments, which exercises students' hands-on practical ability; independently arranging songs exercises students' communication and organizational skills. Among them, the "Moon Full Mid-Autumn Festival, Friendship Reunion" project is a unique STEAM teaching activity of Huigu School. We used this activity as an example to conduct a case study. In-depth understanding of the current status of STEAM teaching activities from the perspective of music(M. Lu, 2020).

Qiwei Lu believes that the key to disciplinary integration lies in the integration of five aspects: searching and discovering disciplinary knowledge, disciplinary thinking, disciplinary methods, disciplinary ethics, and disciplinary spirit. Integrating knowledge is a basic requirement for subject integration. Disciplinary thinking is the cognitive ideas and methods of a discipline. It usually shows a certain disciplinary perspective and tendency when dealing with problems, and has relatively

obvious disciplinary attributes. Discipline method means that every discipline is a study of problems, but different disciplines have different research methods, and different disciplines also have different ways of expression. Discipline ethics means that all human behaviors and all social phenomena have ethical significance. Ethics to a discipline is a kind of moral norms and requirements, which is based on the true pursuit and expression of discipline morality. Discipline spirit refers to the core concepts and value pursuits formed in the long-term development process of the discipline. It is also a unique temperament and character presented by the discipline in its natural state(Q. Lu, 2020).

Thai scholars believe that the principle of the subject integration teaching model is the guiding principle to determine the purpose, content, activities and operating procedures of the subject integration teaching model: the purpose is to specify the desired part, that is, what is hoped to be achieved through the subject integration teaching model. Content is the part that specifies the content and various activities used in music integration to achieve the goals of the subject integration teaching model. The operating procedure is to follow the principles of consistent teaching characteristics to develop procedures or apply the skills of each step of the subject-integrated teaching model to organize the relationship between elements and system components. The principles, concepts, and theories of teaching models are important parts in determining learning objectives. The components of the subject-integrated teaching model include six elements: principles, concepts, theories, purposes, content, measurement and evaluation(Paholpak, 2006).

To summarize the above content, the teaching model of this study combines the two definitions: the teaching model is a paradigm that constitutes classes and assignments, selects teaching materials, and prompts teachers' activities. Teachers use the teaching model to help students form learning strategies, so it is also called a learning model. Its content mainly includes theoretical basis, teaching objectives, operating procedures, and operating strategies, and is divided into four types: information processing teaching model, personality development teaching model, social interaction teaching model, and behavior modification teaching model.

2.4.3 5E teaching model

The 5E teaching model was first proposed by the Biological Sciences Curriculum Study (BSCS) in the United States. Its basic content includes Engage, Explore, Explain, Elaborate, and Evaluation. Evaluate) five links. The five "Es" are specifically Engagement, Exploration, Explanation, Elaboration, and Evaluation. Because the five learning stages all begin with "E", it is also called the "5E" teaching model. Each teaching link of the 5E teaching model fully explores the student's dominant position, stimulates students' cognitive interest and thinking, emphasizes the learning process, and highlights the innovation and application of knowledge (Li, 2012).

The core feature of the 5E teaching model is that it emphasizes students' independent inquiry process and problem-solving abilities, and helps students acquire interdisciplinary integrated knowledge through independent inquiry or group cooperation. In China, Jingduo is generally interpreted as expansion or migration, and participation is interpreted as introduction. Engagement stimulates students' participation and interest in inquiry; Exploration conducts in-depth and continuous exploration Explanation; tests whether the content learned is truly understood; Elaboration applies what is learned to promote the transformation of knowledge and concepts; Evaluation multi-evaluation provides real feedback on student learning (Liu, 2023).

The BSCS 5E teaching model is expressed to varying degrees at the course level and project level, but is most explicitly used at the unit or chapter level for integrated teaching units. As students explore each unit or chapter, they go through a 5E cycle, and Offer to structure their learning. Students work to formulate research questions, design and perform experiments, collect and analyze data, and construct arguments and conclusions based on the data for investigation. Diagnostic, generative assessments are embedded into instructional sequences that promote students' rapid development of understanding and promote self-reflection on their own thinking(W.bybee, 2006).

In the content of "Application of STEAM Teaching Concept in Primary School Music Classroom", Junnan Li talked about situational teaching characterized by project-based teaching, combining the 5E teaching model under constructivism with the combination of classroom and project models and the combination of activities and projects. Carry out teaching activities using the model, study the differences between the experimental group before and after using STEAM teaching and the control group, and summarize the feasibility of STEAM education theory in primary school music classes (li, 2022).

Yi Jiang's "Exploration on the Construction of Practical Teaching Model for Public Art Music Courses in Secondary Vocational Schools - Taking Early Childhood Care Major as an Example" research focuses on music courses in vocational schools and proposes that teachers divide each lesson into "pre-class enlightenment preview, in-class internalized learning, "Post-Transformation Review" three stages, and refer to the 7E teaching model proposed by Eisenkraft, President of the American Association of Former Teachers in 2003, and organize it to stimulate Elicit, Engage, Explore, Explain, Elaborate, Evaluate, and Extend 7E interactive teaching session. In the teaching process, the project teaching method is implemented with the project as the main line, the teacher as the guide, and the students as the main body. Teachers and students complete the tasks together and make progress: before class, the teacher uses the task release method as a guide (1E) to let the students think through their thinking (2E) and exploring (3E) independent learning and previewing knowledge; setting up situations in class to raise questions, the teacher helps students clarify goals and solve tasks through explanation (4E), and conducts skill training for students in essence (5E) to allow students to complete tasks, and conduct timely evaluations of the tasks completed by students (6E); after-class teachers conduct post-tests through online information platforms to track the learning effectiveness of students' exploration (3E) refinement (5E) and expansion (7E)(Jiang, 2022)...

Jiaojiao Zhong proposed in "Research on the Design and Application of STEAM Teaching Activities" that the process and methods of STEAM teaching activity design are divided into three stages: primary tasks, progressive tasks and upgrade tasks. In view of the existing 5E teaching model of STEAM, through the element analysis and framework design of STEAM teaching activities; the construction of the STEAM teaching activity design model; and the application of the STEAM teaching activity design model, strategies to solve the above three problems are proposed. Explore innovative ways to closely combine "doing" and "learning" from the level of teaching activities. On this basis, a STEAM teaching activity design model was initially constructed and applied in practice. STEAM demonstrated that the teaching activity design model is effective and feasible in certain teaching situations(Zhong, 2018).

To summarize the above content; the 5E teaching model uses the teaching steps of Engage, Explore, Explain, Elaborate, and Evaluate to improve students' problem-solving, cooperation, communication, and critical thinking abilities. Project-based teaching methods are used in situational problems to encourage students to learn by doing, effectively promoting students' all-round development. In the expansion part of the 5E step, students can establish interdisciplinary thinking through the extension of knowledge in the teaching process, encourage students to construct connections between disciplines, stimulate students' knowledge transfer, and solve project problems in cooperation, thereby developing multi-dimensional problem-solving abilities. and innovation capabilities. Through the evaluation steps, students are encouraged to make appropriate adjustments and supplements according to the actual situation and subject characteristics, and then perform the 5E cycle, so that the content and thinking construction between various subjects are optimized. This teaching model is more in line with students' learning needs and practical application situations.

2.4.4 Related research

Henriksen affirmed the interdisciplinary nature of the subject. STEM is based on the integration of four subject areas, helping students apply their knowledge

from different perspectives to generate solutions to complex problems. By doing so, he believes that STEM education will have enough potential to develop students' creativity.

Based on the research questions and research methods, Jiaojiao Zhong conducted research on the following three aspects of the paper: element analysis and framework design of STEAM teaching activities, construction of STEAM teaching activity design model; (Application of STEAM teaching activity design model. STEAM teaching activities Activity elements, subject element analysis and framework design respectively propose strategies to solve the above three problems, and explore innovative ways to closely combine "doing" and "learning" from the level of teaching activities to improve the multi-disciplinary integration of STEAM learning and promote students In-depth learning promotes the orderly development of STEAM classroom teaching activities. The author initially constructed a STEAM teaching activity design model, and the practical application of this model confirmed its effectiveness(Zhong, 2018).

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In "Research on Steam Teaching Activities in Primary Schools from the Perspective of Music", Meixu Lu sorted out two types of teaching models based on project-based teaching through Steam Education, which are the model that combines classroom and projects and the model that combines activities and projects. The concept of STEAM education and the synergy and integration among the components of STEAM education were studied, and the important value of music in STEAM education research was clarified. STEAM teaching activities from the perspective of music are carried out through individual cases. From the case investigation and analysis of the interview results of leaders, teachers, and students, the case school has gone from the "classic forever" that integrates Chinese and music to the multi-disciplinary exploration, from less to more, from simple to complex, and explored the unique features of music as the main line. A STEAM teaching activity route with certain characteristics (M. Lu, 2020).

Shuting Luo "Application Research on the Integrated Teaching Model of Music Subjects in Junior High Schools - Taking Hunan Education Edition Music Textbooks as an Example" This paper mainly studies the subject integrated teaching model of music and analyzes the use of sister arts poetry, dance, art, film and television and drama in music teaching materials. Through the integration within the subject, the integration of sister arts and the integration with other non-arts in high-quality lessons, we further design the subject integration teaching model, and finally put forward suggestions and reflections on the subject integration teaching model. The implementation requirements of subject integration are to run through the main line of music, the teaching content of subject integration must comprehensively grasp the teaching materials, the teaching method of subject integration needs the assistance of sister arts, and the teaching design of subject integration is generated through continuous adjustment (Luo, 2021b).

Kim's article "The Impact of STEAM Education Applied Music Courses Based on Blended Learning on Pre-Service Preschool Teachers' Music Knowledge and Comprehensive Talent Quality" analyzes the impact of blended learning-based STEAM Education Applied Music Courses on pre-service preschool teachers. A comparative study before and after the experiment was conducted on pre-service preschool teachers in South Korea's metropolitan city on the impact of music knowledge and comprehensive talent quality. The results of the study showed that the experimental group that adopted a hybrid-based STEAM education music course had better knowledge than the control group. There has been an improvement in integration, creativity, and communication, proving the effectiveness of the integration of music courses in hybrid(Kim, 2018).

Jie ren's article "Analysis of the Homology of the Cross-Integration of Subjects in Junior High School Music Textbooks" uses the cross-integration of music content and artistic subjects such as music and art, and dance content, and the relationship between music and other subjects such as music and Chinese, music and morality, history, etc. The method of cross-integration of content enriches the intersection of knowledge between music and other subject areas. The study proposes that the integrated structure is inseparable from the knowledge system, looking at problems from a comprehensive perspective, forming an overall view and comprehensive cognitive awareness, and cultivating students' creative thinking and artistic expression in junior high school music classroom learning (Ren, 2023).

Jiefeng Mai adopts the STEAM education and teaching model based on picture books in "Practice and Exploration of Kindergarten STEAM Education Model Based on Picture Books", taking problem solving as the foothold and project development as the main form. The model is constructed using picture books as the main teaching carrier to focus on picture books and ask questions; investigate and research to expand ideas; design and produce picture book scaffolds; sort out experiences and transfer and extend them into steps to improve children's STEAM literacy (Mai, 2023).

In Search of a Long-Awaited Consensus on Disciplinary Integration in STEM Education, David Aguilera provides a theoretical framework to unify the standards of subject integration and related teaching methods in STEM education. The author proposes the meaning of subject integration and integrated teaching methods at the education stage. Recommendations are provided for interdisciplinary research(Aguilera et al., 2021).

2.5 Summary of literature review

2.5.1 Research Status of Early Childhood Care Programs in Vocational Schools

Through the organization and analysis of domestic and international literature, it has been found that research on keywords such as "early childhood care," "vocational education," and "subject integration" is generally limited, especially in the area of systematic studies on the integration of art courses and professional courses in vocational schools. For example, according to China National Knowledge Infrastructure (CNKI), there are only 46 related studies focusing on the "early childhood care program," which reflects the early stage of research in this field. In contrast, international databases such as ERIC show more abundant research results. The keywords "Child care" or "early childhood care" have accumulated a total of 4,391 papers over the past 20 years, with 166 papers published in 2023, highlighting the global and sustained attention to this field of study.

In line with national policy requirements, the need for comprehensive quality training in vocational school early childhood care programs has been clarified, particularly the urgency of integrating art course standards with professional courses. The national goal for cultivating composite talents in vocational education emphasizes the need for students to be able to apply professional knowledge in practice to meet the needs of societal development. However, current research has not yet fully met this requirement, especially in terms of integration paths for art courses and specific practical models, and further exploration is needed.

2.5.2 Research Status of Integrated Teaching Models

(1) Fogarty's Curriculum Integration Model

Fogarty's curriculum integration model presents a systematic approach to interdisciplinary integration. By exploring the commonalities and connections between different subjects, it helps students improve their interdisciplinary understanding, critical thinking, and problem-solving abilities. Her theory provides important guidance in diverse teaching and curriculum design, especially in supporting the integration of art courses and vocational education.

(2) STEAM Teaching Model

The STEAM teaching model centers around the integration of Science, Technology, Engineering, Art, and Mathematics, using task-oriented project teaching methods. It significantly enhances students' creativity and collaborative skills in interdisciplinary courses. This model is particularly suitable for the fields of music and art education, providing a practical framework for integrating art courses with early childhood care programs in vocational schools.

(3) 5E Teaching Model

The 5E teaching model focuses on "Engage, Explore, Explain, Elaborate, and Evaluate," emphasizing students' independent learning and practical ability development. Its extended version, the 7E model, adds "Elicit" and "Extend" steps, further strengthening the systematization and flexibility of the teaching process. This
model has been widely applied in interdisciplinary curriculum design and offers a useful paradigm for integrating art courses with professional courses.

(4) Multiple Intelligences Theory

Gardner's theory of multiple intelligences provides significant theoretical support for interdisciplinary integration. By redefining human intelligence, he proposed eight types of intelligence: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic. These intelligences are independent yet closely interrelated in practical applications. Musical intelligence is an essential part of human potential and can be developed in various ways, working together with other intelligences such as spatial, kinesthetic, and linguistic intelligences to form core elements in the arts. Gardner emphasizes that through interdisciplinary thinking and reasoning abilities, multiple intelligences can be activated and combined in different ways, thereby enhancing students' problem-solving skills and creative thinking. Scholars like Fogarty and Campbell have further applied the theory of multiple intelligences to curriculum integration design, providing concrete practical pathways.

(5) Integrated Models in Music Education

Music courses that integrate literature, art, and social cognition demonstrate the potential of interdisciplinary approaches. For example, using rhythmic games to understand rhythm and incorporating music into picture book reading not only enhances students' musical intelligence but also promotes the collaborative development of various skills. However, there is limited research on how music courses can be deeply integrated with professional courses in vocational education, and this remains an area for further exploration.

2.5.3 Research Hotspots and Practical Pathways

Current research hotspots primarily focus on the following areas:

(1) Multidisciplinary Integration in Teaching Design

Based on STEAM and multiple intelligences theory, researchers explore task-oriented teaching methods that significantly enhance students' interdisciplinary thinking and innovative abilities.

(2) Interdisciplinary Integration in Arts Education

Both domestic and international case studies show that music, as a core art course, offers rich possibilities for integration with other subjects such as literature and visual arts, providing guidance for curriculum design in vocational schools.

(3) Optimization and Improvement of Evaluation Mechanisms

Diversified evaluation models and cyclical teaching designs have become key focuses in interdisciplinary integration research, aiming to dynamically track and assess students' learning outcomes.

2.5.4 Research Feasibility

Current Limitations of the Research:

(1)Lack of Detailed Practical Paths

There is insufficient applied research on interdisciplinary integration in non-art disciplines, and the integration model in vocational schools requires more specific implementation plans.

(2) Incomplete Evaluation System

There is a lack of standardized and quantitative evaluation tools, making it difficult to fully assess the specific impact of integrated courses on students' ability development.

(3) Insufficient Application of Multiple Intelligences Theory in Vocational Education

Although the application of multiple intelligences theory in primary and secondary education has achieved some results, in-depth research in vocational education is limited, especially regarding its potential in early childhood education.

Future Research Recommendations:

(1) Innovate Interdisciplinary Integration Models

Future research should focus on the innovation and practical promotion of cross-cultural, multidisciplinary integration teaching models, while also emphasizing dynamic tracking and in-depth analysis of student learning outcomes. This will further advance the development of teaching model theory and practice, particularly in vocational education, by exploring advanced teaching models that combine art courses with specialized courses to meet societal needs.

(2) Improve the Evaluation System

Develop standardized tools and track students' learning outcomes dynamically.

(3)Conduct In-Depth Research on the Cross-Cultural Adaptability of Multiple Intelligences Theory in Vocational Education,Explore its practical promotion and optimization design in different cultural contexts.

In summary, based on national policy requirements and the practical needs of vocational school early childhood education programs, this thesis explores the integration path of music as a core art course in vocational schools' early childhood education programs. This aims to fill research gaps and enrich the content of interdisciplinary integration research in vocational education.



CHAPTER 3 METHODOLOGY

According to the research objectives, this study intends to use a combination of quantitative and qualitative research methods. The research will be conducted through literature review, surveys, interviews, and expert assessments to achieve the research goals.

According to the needs of the study objectives:

(1) To learn and analyze the current situation of the implementation of the teaching model of the early childhood care profession and the needs of society.

(2) To construct a teaching model based on the compulsory courses of early childhood care based on music integration.

(3)To validate the teaching mode of music integrated with the compulsory courses of early childhood care.

The design of this study is mainly divided into three stages: basic data collection, construction of teaching model, and evaluation of teaching model.

3.1 Basic data collection and analysis

3.1.1Research Data Collection Methods

(1) Qualitative Research Data Collection Methods

s, academic papers, journal articles, and other sources, this method will identify the current issues in the teaching model of music-integrated early childhood care courses, the relevant theories of music integration in early childhood care, and the construction requirements for the teaching model.

b. In-depth Interviews: This method aims to further explore issues identified through the questionnaire survey. The interview outlines will cover three dimensions: collection of basic personal information, teacher interview outline, and open discussion on the current state, needs, and suggestions for the music-integrated early childhood care course teaching model. The interview outline for graduates will focus on reviewing the teaching model, the role of music courses in teaching, the demand for integrated teaching models, and suggestions for improvement. A draft of the questionnaire will be designed and submitted to experts for IOC (Item Objective Congruence) reliability testing. Based on the feedback and suggestions, the questionnaire will be revised and improved to ensure accuracy, appropriateness, and clarity. Once the research purpose aligns with expert feedback, formal interviews will be conducted. Data collected will include personal in-depth interview data and focus group interview data.

c.Focus Group Interviews: Through interviews with graduates, this method aims to understand how well the teaching model learned during their studies applies to their employment. It will gather opinions and suggestions for adapting the current early childhood education work, with the content organized to construct a model that meets the current needs of frontline early childhood educators.

(2) Quantitative Research Data Collection Method

a. Questionnaire Method

Design research tool – design a questionnaire to investigate whether students in the early childhood care program have a need for the integration of music courses into the curriculum. First, a draft of the questionnaire will be designed and submitted to experts for IOC (Item Objective Congruence) reliability testing. Based on feedback and suggestions, the questionnaire will be revised and improved. A smallscale sample survey will be conducted to verify the validity and reliability of the questionnaire before distributing it on a larger scale. The data collected will focus on students' satisfaction with the current teaching model of early childhood care and their opinions and suggestions on the integration of music courses for personal and social development.

IOC Formula:

$$IOC = \frac{\sum R}{N}$$

Where $\sum R \le R$ is the sum of the expert ratings, and NNN is the number of experts. Ratings are assigned as follows: Agreement = 1, Uncertainty = 0,

Disagreement = -1. A result of \geq 0.50 indicates that the item aligns with the research objective.

For large-scale distribution, Cronbach's α coefficient will be used for reliability analysis, and KMO and Bartlett's Test will be applied for validity testing. The data will be organized to assess students' satisfaction with the current teaching model in early childhood care, their needs, and their opinions on the integration of music courses in the teaching model.

b. PNImodified

Prioritize students' needs for the teaching model using the PNImodified formula. The PNImodified formula consists of the following components:

The cc is as follows:

$$PNImodified = rac{(W-D)\cdot P}{W+C}$$

Where:

W (Want): The perceived importance of a specific need based on feedback (e.g., the average value of responses).

D (Done): The degree to which the current teaching model meets the need (e.g., the average value of responses).

P (Priority): Can be determined by significant needs identified in the survey (e.g., the weight of a specific dimension or the proportion of responses marked "Strongly Agree" and "Agree").

C (Cost): The practical cost of implementation, which can be considered a unified adjustment factor.

3.1.2 Population and Sample

(1) Qualitative Research Population and Sample

According to the announcement on the qualifications for vocational school enrollment for 2023 in Sichuan Province, there are 349 secondary vocational schools, of which 106 offer early childhood care programs. In Chengdu, there are 23 secondary vocational schools offering early childhood care programs. Among them, 12

schools are part of the "Three Famous Projects" (Famous Schools, Famous Programs, Famous Training Bases), which include the early childhood care program. Therefore, this study selected about 96 teachers from these 12 demonstration schools in Chengdu that offer early childhood care programs as the research subjects. The representative nature of the demonstration schools enhances the influence of the study. Teachers from early childhood care classes in these 12 schools were randomly sampled, with the sample consisting primarily of music teachers responsible for early childhood care classes. One teacher was randomly selected from each school for in-depth individual interviews, totaling 12 teachers from the 12 schools. Through fair random sampling, these 12 teachers were interviewed using semi-structured individual interviews to understand their perspectives on the current teaching model for early childhood care programs, societal needs, and suggestions for the integration of music courses in early childhood care programs.

(2) Quantitative Research Population and Sample

The quantitative research focuses on third-year graduating students from the 12 demonstration schools in Chengdu offering early childhood care programs (these students have practical internship and observation experience, making them more familiar with societal needs). Each school has about five classes for early childhood care, with approximately 40 students per class, totaling about 200 students per school. Therefore, the sample population consists of 2,400 third-year students across the 12 schools. The sample primarily includes students from the third-year classes of the early childhood care program. Using Taro Yamane's formula to calculate the sample size, approximately 343 students were selected for the questionnaire survey from the 12 schools, with around 29 students randomly selected per school. The survey aims to investigate students' understanding of the current teaching model for early childhood care programs and their needs. The 12 "Three Famous Projects" vocational schools with early childhood care programs are:

- (1) Chengdu Etiquette Vocational High School
- (2) Sichuan Zhixiang Vocational and Technical School
- (3) Chengdu Petrochemical Industry School
- (4) Dayi County Vocational Senior High School in Sichuan Province
- (5) Chengdu Engineering Vocational and Technical School
- (6) Chengdu Electronic Information School
- (7) Sichuan Tianfu New Area Vocational School
- (8) Zhonghe Vocational School in Chengdu, Sichuan Province
- (9) Chengdu Modern Vocational and Technical School
- (10) (Qingsu Vocational School in Chengdu, Sichuan Province
- (11) Chengdu Automotive Vocational and Technical School
- (12) Chengdu Modern Manufacturing Vocational and Technical

School

3.1.3 Research Data Collection Methods

(1) The sample sampling method for qualitative research uses random sampling. One music teacher is randomly selected from each of the 12 schools, resulting in a total of 12 teachers for individual in-depth interviews.

(2) The sample sampling method for quantitative research uses a questionnaire survey. The sample size is calculated using the formula developed by Japanese mathematician Taro Yamane:

The formula is:
$$n=rac{N}{1+N(e^2)}$$

Where n is the required sample size from the research population, N is the total population being studied, which is 2400, e is the margin of error, where the confidence level is set at 95%, and e is 0.05.

So, the sample size calculation becomes:

$$n = rac{2400}{1+2400(0.05^2)}$$
 ,

which results in a sample size of approximately 343 people.

By using the Taro Yamane formula, 12 schools will each select approximately 29 students, totaling around 343 students. These students will be randomly surveyed with a questionnaire to gather their understanding of the current state of the early childhood care program and its needs.

3.1.4 Data Analysis

(1) Quantitative Data Analysis:

Descriptive statistical analysis will be conducted using the statistical software SPSS. Mean and standard deviation will be used to summarize test scores and measure the indicator levels of each variable. A higher mean value indicates a higher average level for that indicator in the sample, while the standard deviation describes the dispersion of the data, representing the extent of variation among the samples for the same indicator. Correlation analysis refers to the process of describing and analyzing the nature and degree of the relationship between two or more variables. A significance value (sig) less than 0.05, with an asterisk (*) marked in the upper-right corner of the correlation coefficient, indicates a significant relationship. Conversely, no asterisk suggests no relationship. If the correlation coefficient is greater than 0, it indicates a negative correlation.

The PNImodified formula is used to identify and assess the differences between the ideal student teaching model and the current student teaching model. At the same time, researchers use the PNImodified formula to determine the priority needs index for the student teaching model. Based on the results of PNImodified, researchers identify the content of the student teaching model that needs to be prioritized for development.

(2) Qualitative Data Analysis:

Nvivo software will be used to code and analyze the interview and observation data. Interview recordings will be transcribed for accurate data analysis. Codes will be assigned to responses from the questionnaires and open-ended statements, and themes and sub-themes will be identified through thematic analysis by grouping the codes.

3.1.5 Research Tools

(1) Quantitative Research Tool:

A questionnaire survey will be designed using the "Wenjuanxing" platform.

(2) Qualitative Research Tool:

Semi-structured individual in-depth interview and focus group interview outlines will be designed.

3.1.6 Reliability and Validity of the Study

The reliability of the research tools will be assessed using the IOC (Item-Objective Congruence) consistency test: both the questionnaire survey and interview outlines will be reviewed by 3-5 experts in the field. The validity of the teaching model construction will be ensured through expert review by professionals in the field to assess the effectiveness of the research tools and data. Triangulation will be employed to integrate the results of both quantitative and qualitative research, providing a comprehensive evaluation of the effectiveness of the teaching model.

3.1.7 Ethical Considerations

The participants in the questionnaire survey and in-depth interviews are all over 18 years old. This study has developed an information sheet and informed consent form for research subjects, carefully considering ethical principles. It ensures that all participants understand the purpose of the research, have given their informed consent, and that their privacy and data security are protected. During the survey, we ensure that each volunteer fully understands the purpose, content, confidentiality, and use of the data, and that their participation is voluntary. The following is a detailed explanation of the volunteer consent process for the survey.

(1) Introduction to the Survey Purpose Before the survey begins, we will provide the volunteers with a detailed explanation of the survey's purpose. This includes the topic of the survey, the goals to be achieved, and the potential positive impacts of the results on various fields. Through a clear introduction, we hope that the volunteers will understand and agree with the significance of the survey, leading to more active participation.

(2) Explanation of the Survey Questionnaire Content We will provide the volunteers with detailed information about the questionnaire, including its structure, question types, number of questions, and the specific meaning of each question. Through detailed guidance, volunteers will be able to anticipate the types and difficulty of questions, which will help them complete the questionnaire more smoothly.

(3) Clarification of Confidentiality Principles We strictly adhere to confidentiality principles, ensuring that volunteers' personal information and survey data will not be disclosed to any third parties. We will explain how we will store and protect these data and promise to use them only when necessary for survey analysis and report writing.

(4) Emphasis on Voluntary Participation Participation in this survey is entirely voluntary, and volunteers have the right to withdraw at any time. We will clearly inform volunteers that their participation will not have any negative effects or otherwise impact their rights.

(5) Explanation of the Purpose of Data Volunteers will be informed of the purpose of the survey data, including statistical analysis, research report writing, and potential academic publications. We will also emphasize that we will comply with relevant laws and regulations to ensure the lawful use of the data.

(6) Provision of an Exit Mechanism During the survey process, if volunteers decide to withdraw, we will provide an easy exit mechanism. Volunteers can stop completing the questionnaire at any time, and we will respect their decision and delete any data they have already provided.

(7) Obtaining Written Consent After volunteers fully understand and agree to the above content, we will ask them to sign a written consent form to confirm their participation. This written consent will serve as evidence of the volunteer's agreement to participate in the survey and will be securely stored throughout the survey process. Through these seven steps of explanation and clarification, we aim to ensure that every volunteer can participate in this survey voluntarily and with full understanding, confidently providing their information and opinions. At the same time, we will make every effort to provide volunteers with convenience and support, ensuring the smooth progress of the survey.

3.2 Construction of the Teaching Model Stage

Using the information obtained from the basic data collection in Phase One as a guide for the development of the teaching model.

3.2.1 Establishing the Teaching Model Outline

The basic data collected in Phase One will be used to draft the conceptual framework of the teaching model, which includes the theoretical basis, teaching objectives, operational procedures, teaching strategies, and teaching evaluation.

3.2.2 Developing the Content of the Teaching Model

(1) The theoretical basis will be based on Multiple Intelligences Theory, BCSC 5E Teaching Model, and Fogarty's Curriculum Integration Model.

(2) Using interdisciplinary thinking from Multiple Intelligences Theory in conjunction with national vocational school program standards and art curriculum standards to guide the teaching objectives of the music integration model, enhancing students' ability to solve problems in multiple dimensions.

(3) Following the steps of the 5E teaching model—Engagement, Exploration, Explanation, Elaboration, and Evaluation—guiding the teaching procedures of the music integration model during the Elaboration step.

(4) Integrating early childhood education courses with music courses using Fogarty's shared model and webbed model as integration methods, guiding the operational strategies of the teaching model.

(5) Using national vocational school program standards and early childhood education art curriculum standards as evaluation goals to guide diversified teaching evaluation.

3.2.3 Drafting the Plan

(1) Drafting the initial version of the music integration teaching model. This will include the theoretical basis, teaching objectives, teaching procedures, teaching strategies, and teaching evaluation of the music integration model.

(2) Drafting the application of the music integration teaching model in the curriculum outline and case design.

(3) Developing a diversified teaching evaluation form.

3.3 Expert Validation of the Teaching Model's Quality

The feasibility of the teaching model depends on whether the teaching objectives are achieved. In the third phase, experts validate the quality of the musicintegrated teaching model draft and its application in case design based on whether the teaching objectives are met. The specific steps are as follows:

3.3.1 Defining Validity Evaluation Criteria

(1) Goal Orientation: Whether the teaching model achieves the intended teaching objectives, promoting student growth in theoretical knowledge, teaching skills, and innovative abilities.

(2)) Adaptability and Universality: Whether the model design can adapt to different educational environments and student backgrounds and has general applicability.

(3) Operability: Whether the implementation of the teaching model is concrete and actionable, ensuring smooth execution by teachers and students.

(4) Innovation: Whether the teaching model incorporates innovative elements, breaking away from traditional approaches and introducing new educational concepts or methods.

(5) Educational Effectiveness: Whether the model enhances students' comprehensive abilities, such as critical thinking and creative problem-solving.

3.3.2 Designing Validation Tools

To ensure structured and systematic validation, a set of expert validation tools is proposed, combining qualitative and quantitative methods, including questionnaires, semi-structured interviews, and scoring scales.

(1) Scoring Scales: Experts use scoring scales to evaluate various dimensions of the teaching model (e.g., clarity of objectives, coherence of course design, interdisciplinarity, and ease of implementation). Scales can range from 1 to 5 points.

(2) Interview Guide: During interviews, experts provide subjective evaluations and feedback, helping developers understand strengths and weaknesses of the model. Experts can propose improvements or offer suggestions for specific application scenarios.

3.3.3 Expert Selection and Background

(1) Selection Criteria: Experts with relevant experience in fields such as education, music education, and child development are selected. They may include teachers, educational researchers, curriculum designers, or experienced education administrators.

(2) Expert Background: Selected experts should have a deep understanding of early childhood education, interdisciplinary approaches, and relevant teaching models to provide high-quality feedback.

The study involves five experts: three with over 10 years of experience in music education and two with over 10 years of experience in early childhood care.

3.3.4 Expert Validation Process

(1) Pre-Training: Brief experts on the teaching model's background, design concepts, and evaluation criteria to ensure consistency in validation.

(2) Completing Validation Tools: Experts use the scoring scale and provide open-ended feedback based on the evaluation criteria.

(3) Semi-Structured Group Focus Interviews: Conduct focus interviews either in person or online. Discussions may focus on theoretical foundations, feasibility of achieving objectives, and practical implementation of the model.

(4) Feedback Consolidation: Collect and analyze expert feedback and scores comprehensively. Summarize the strengths and weaknesses of the teaching model and extract actionable optimization suggestions.

3.3.5 Analysis and Feedback

(1) Quantitative Analysis: Using the expert scoring scales, conduct statistical analysis to calculate average scores, standard deviations, and other metrics for each dimension to assess strengths and weaknesses. Determine whether the model meets validity standards in most areas.

(2) Qualitative Analysis: Organize and categorize feedback from expert interviews to identify subjective evaluations and improvement suggestions, revealing potential issues in the model design.

3.3.6 Validity Summary

Combine expert scores and interview feedback to determine the validity of the teaching model. Specific evaluation standards include:

(1) Goal Alignment: Whether the teaching objectives are clear and achievable through the model.

(2) Completeness of Teaching Process: Whether the teaching design process is coherent and appropriately guides students to achieve objectives.

(3) Innovation and Practicality: Whether the innovative aspects align with educational trends and are feasible and adaptable.

(4) Integration of Theory and Practice: Whether the model effectively translates theoretical knowledge into teaching practice, facilitating teacher-student interaction.

3.3.7 Proposing Improvement Suggestions

Based on expert feedback, propose specific improvement measures, including:

(1) Simplifying or redesigning certain teaching steps to enhance operability and student engagement.

(2) Adjusting or supplementing theoretical foundations to better integrate the design into real teaching scenarios.

(3) Providing additional examples, tools, or resources to ensure smooth implementation of the teaching model.



CHAPTER 4 FINDINGS

This chapter summarizes the results of data analysis. The researcher will present the findings of the basic data analysis to utilize the evidence and information obtained from the analysis for developing a teaching model that integrates music courses into early childhood care and education curricula.

4.1 Findings from Basic Data Research

4.1.1 Results of Literature Review Analysis

First, The research analyzes materials such as books, theses, and academic journals to review the current status and needs of the teaching model, and establishes a theoretical framework for the teaching model. This provides theoretical support for the study and clarifies the direction for integrating music curriculum into early childhood care programs

Currently, the main integrated curriculum methods can be categorized into the following types:Discipline-based content design: Integration of course content within the framework of a single discipline.Parallel discipline design: Parallel disciplines arrange topics from two related fields for simultaneous teaching, with students responsible for building connections between the subjects.Multi-discipline design: Similar to parallel design but emphasizes student-led construction of connections between related subjects.Interdisciplinary units: This approach breaks traditional disciplinary boundaries, integrating all school subjects into unified thematic units. Fogarty's curriculum integration theory outlines ten approaches to curriculum integration, progressing from single-discipline to interdisciplinary methods. The details are as follows: The Fragmente Courses are independent, taught within a single-discipline framework, with no explicit connections between subjects. The Connected Model:Emphasizes the connections between topics within a single discipline, presenting content with logical coherence. The Nested Model: Integrates multiple goals within a single discipline, such as developing skills, concepts, and emotional objectives simultaneously. The Sequenced Model: Teaching content from two or more disciplines is arranged in a logical chronological order. The Shared Model: Two disciplines share the same theme or concept, collaborating in teaching. The Webbed Model: Centers around a single theme, integrating multiple disciplines related to that theme, especially suitable for project-based learning. The Threaded Model : Embeds cross-disciplinary skills (e.g., critical thinking, writing skills) across all disciplines, creating a continuous learning thread. The Integrated Model : Multiple disciplines are deeply integrated around a common theme or problem, breaking traditional subject boundaries. The Immersed Model : Students focus on personal interests, integrating learning content into specific fields with a self-directed learning focus. The Networked Model : Students build multilayered, interdisciplinary learning networks through extensive fields, resources, and connections autonomously.

Another method involves Robin Fogarty's curriculum integration models combined with multiple intelligences theory, which outlines ten models: fragmented, connected, nested, sequenced, shared, webbed, threaded, integrated, immersed, and networked. Each model represents a different approach to curriculum integration.

STEAM education teaching models are the most widely applied across various educational stages. Common approaches include Project-Based Learning, Problem-Based Learning, Design-Based Learning, and the "5E Learning Cycle." Project-Based Learning, in particular, is frequently utilized, with implementations combining classroom instruction and project activities, as well as activity-based and project-based integrations.

The "1+X" model in vocational education, which combines a degree with multiple skill certifications, has presented both challenges and opportunities for curriculum integration and interdisciplinary teaching in early childhood care programs. However, research on teaching models for curriculum integration remains limited, with a lack of concrete implementation cases that demonstrate how to foster interdisciplinary thinking in professional contexts through integrated curricula. Interdisciplinarity requires meaningful teaching scenarios that are multidimensional, necessitating interdisciplinary

approaches to fully understand them.Addressing the demand for interdisciplinary competencies enables students to adapt to the "1+X" compound talent model. Through interdisciplinary education, we can better cultivate well-rounded and innovative early childhood educators, thereby improving the quality and effectiveness of early childhood education.

Current research on curriculum integration still requires advancements in theoretical innovation, exploration of practical teaching models, and the establishment of evaluation systems. Therefore, this study, based on the aforementioned literature analysis, is feasible and identifies a theoretical foundation suitable for developing teaching models. Key theories include multiple intelligences theory, the 5E instructional model, and Fogarty's curriculum integration model.

4.1.2 Investigation and Analysis of the Current State and Needs of Teaching Model Research

After organizing the literature, this study further conducted a questionnaire survey with current students, in-depth personal interviews with teachers, and focus group interviews with alumni to obtain more detailed information about the current state and needs of teaching models. Following the preliminary design of the questionnaire and interview outline, the drafts were submitted to the advisor and relevant experts. Based on their feedback and suggestions, the questionnaire underwent initial revisions and improvements. Additionally, the study incorporated the PNImodified needs survey to prioritize the needs of the teaching model. By using the PNImodified formula, the study evaluated the importance, current satisfaction, and cost of each teaching model need, providing a comprehensive analysis of the areas that require immediate attention and development.

To ensure the scientific validity, reliability, and alignment of the questionnaire with the research objectives, an Item-Objective Congruence (IOC) test was conducted. Only items with an IOC score greater than 0.50 were retained, as this indicates alignment with the research objectives and ensures the validity of the questions. The valid questionnaire and interview questions are provided in Appendix 1and Appendix2.

In order to conduct the Item-Objective Congruence (IOC) scoring and summary, experts will score each item based on the following criteria: +1: Agree, the item is highly consistent with the research objectives. 0: Uncertain, the expert has some doubts about the applicability or clarity of the item. -1: Disagree, the item is inconsistent with or unclear in relation to the research objectives. Below is the scoring table and summary based on expert ratings(Appendix1.2)

summary: The majority of questions (13 out of 14) received a score of +1, indicating complete alignment with the research objectives. Questions B1, B2, B3, and C3 received scores of +0.80, reflecting some uncertainty among experts in these areas. This suggests that further clarification may be needed to reduce any ambiguity. Overall, the items in the questionnaire are highly consistent with the research objectives, with only a few areas requiring minor adjustments to improve clarity and ensure full alignment.

After adjusting the questionnaire items based on the IOC consistency evaluation by the advisor and experts, further tests were conducted to effectively verify the reliability and validity of the questionnaire. The reliability and validity analysis was performed using SPSS software, and the results are as follows:

A total of 431 questionnaires were distributed to students via the "Questionnaire Star" platform, and 429 were returned, yielding a response rate of 99%. The online survey was conducted with a random sampling method. The questionnaire was analyzed using Cronbach's α coefficient for reliability, and the results are as follows:

Table 1

Reliability Statistics

			Cronbach's Alpha Based
	Cronbach's Alpha		on Standardized Items
Total	C	0.968	0.969

From the table, it can be seen that the Cronbach's α coefficient is above 0.9, which indicates a very high level of internal consistency for the questionnaire, surpassing the commonly accepted threshold of 0.70. In this study, a Cronbach's α coefficient of 0.969 not only indicates high reliability of the questionnaire but also enhances our confidence in the results, suggesting that the questionnaire effectively captures the measured characteristics in practical application. Based on the reliability analysis results, the questionnaire is reliable for use in this study and is suitable for subsequent data collection and analysis.

For validity analysis, the KMO and Bartlett's Test were conducted, and the results are as follows:

Table 2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.947
Bartlett's Test of Sphericity	Approx. Chi-Square	7618.678
	df	91
	Sig.	0.000

From the validity data of the questionnaire, it is shown that the KMO value is greater than 0.7, and the significance level of Bartlett's test of sphericity is 0.000, which is less than 0.01. This indicates that the questionnaire has a relatively high fit, and the validity of the data is good.

Based on the above reliability and validity analysis, as well as the response rate and validity rate of the distributed questionnaires, it can be concluded that the questionnaires distributed for the survey adequately represent the overall situation of the participants and are statistically significant. The results of the questionnaire can be used to analyze the current status and needs of the teaching model in the early childhood education program.

The results of the statistical survey and the issues that require further investigation, along with the perspectives of teachers and graduates, were combined to design personal in-depth interviews and focus group interviews. These were conducted to understand the views of teachers and graduates on the current teaching model and the professional development needs of early childhood education. By organizing the interview materials and summarizing the viewpoints of the teachers, we analyzed, summarized, and extracted the information obtained from the survey and interviews to provide evidence for developing a teaching model from multiple perspectives.

Survey sample details: To ensure the authenticity and differentiation of the sample data, demographic variables such as gender were included in the questionnaire. The survey was conducted anonymously, and a demographic analysis was performed on the valid samples. A total of 429 students participated in the questionnaire survey, and the frequency of the basic statistical data is as follows:

Table 3

Frequency	N	Percent
Gender		
A. Male	18	4.2
B. Female	411	95.8
Grade Level		
A. First Year	53	12.4
B. Second Year	177	41.3
C. Third Year	193	45.0
D. Graduated	6	1.4
Has Participated in Early Childhood Education Practice or Internship		
A. Yes	311	72.5
B. No	118	27.5

From the above chart, it can be seen that the majority of the students participating in the survey are female, making up 95.8% of the population. The highest proportion of students are in their third year, accounting for 45.0%. Additionally, the proportion of students with experience in early childhood education practical teaching and internships is 72.5%.

Table 4

Item	Mean	Std. Deviation	N
The learning objectives of the early childhood education curriculum are clear.	1.71	0.650	429
The teaching model of the early childhood education curriculum can stimulate my learning interest.	1.80	0.712	429
The current teaching methods in the early childhood education curriculum help me establish effective learning strategies.	1.78	0.707	429
The design of teaching activities in the early childhood education curriculum is interactive and participatory.	1.67	0.632	429
The assessment and evaluation methods in the current early childhood education curriculum are reasonable.	1.69	0.652	429
I have a thorough understanding of the professional development needs of early childhood education.	1.76	0.704	429
I have a clear career development plan.	1.84	0.728	429
The current teaching model in the early childhood education curriculum meets the needs of career development.	1.83	0.770	429
Music plays an important role in early childhood education.	1.59	0.626	429
Combining music elements with early childhood education-related knowledge helps enhance learning interest.	1.60	0.628	429
Integrating music courses with early childhood education courses helps stimulate innovative thinking.	1.65	0.667	429
Integrating early childhood education courses into music courses helps connect various professional courses.	1.65	0.659	429
Combining music courses with early childhood education courses can provide diversity for career development.	1.62	0.632	429
I am willing to participate in joint projects between music courses and other early childhood education courses.	1.64	0.675	429

From the descriptive analysis table above, it can be seen that the average scores are relatively high, indicating that the respondents generally agree with the statements.

Table 5

(1) Correlations

Item	Correlation	Sig.
Clear learning objectives of the Early Childhood Education curriculum	0.701**	0.000
The teaching model of the Early Childhood Education curriculum stimulates my learning interest	0.748**	0.000
The current teaching methods in the Early Childhood Education curriculum help me establish effective learning strategies	0.730**	0.000
The current teaching model of the Early Childhood Education curriculum meets my career development needs	0.660**	0.000
Music plays an important role in early childhood education	0.535**	0.000
The integration of music elements with early childhood education knowledge helps improve learning interest	0.544**	0.000
The combination of music courses with early childhood education courses helps stimulate innovative thinking	0.580**	0.000
Integrating early childhood education courses into music courses helps link various professional courses	0.583**	0.000
The integration of music courses and early childhood education courses can provide career development diversity	0.590**	0.000
Willingness to participate in joint projects of music courses and other early childhood education courses	0.611**	0.000

Note: Correlation is significant at the 0.01 level (2-tailed).

In this study, the relationship between the teaching model of Early Childhood care curriculum, student learning interest, and career development needs was explored. Through the analysis of Pearson's correlation coefficients, several significant correlations were identified. First, there is a significant positive correlation between the Early childhood care curriculum teaching model and students' learning interest (r = 0.748, p < 0.01). This result indicates that an effective teaching model can significantly stimulate students' learning interest, thereby enhancing their active participation in professional studies. This finding aligns with current educational psychology theories, emphasizing the important impact of teaching methods on student motivation.

Second, the teaching model of the Early childhood care curriculum is also significantly correlated with career development needs (r = 0.660, p < 0.01). This suggests that teaching models aligned with career development needs can better meet students' career planning, thus increasing their motivation and engagement in learning.

This result highlights the importance of aligning educational curriculum design with industry demands to cultivate students' professional competencies.

Additionally, the integration of music elements with Early childhood carerelated knowledge shows a positive correlation with both learning interest (r = 0.544, p < 0.01) and career development diversity (r = 0.590, p < 0.01). This integration not only enhances students' learning interest but also provides diverse career development options, reflecting the potential value of interdisciplinary education. The combination of music courses with Early childhood care courses demonstrates a strong correlation, indicating that the integration of music education significantly enhances students' learning experiences and provides greater flexibility and diversity for their career development.

From the table above, it can be seen that there is a significant positive correlation between career development needs and various aspects of the Early childhood care curriculum, such as the teaching model's ability to stimulate learning interest, establish effective learning strategies, the important role of music in Early childhood care, and the integration of music elements with Early childhood care -related knowledge. All the correlation coefficients of these variables are greater than 0, indicating a significant positive relationship. The results of this study support the necessity of optimizing the teaching model by integrating music content with Early childhood care curriculum to enhance students' learning interest and career development. In future teaching practices, the integration ability of students should be considered to promote their overall development, making them more adaptable to the high-quality and diverse needs of society for Early childhood care professionals.

Survey Results: The findings are discussed from three dimensions: the current teaching model, career development needs, and the cognitive and attitudinal dimension of music-based integrated teaching models.

(1) Current Teaching Model Dimension

According to the survey, 38.98% of students strongly agree that the learning objectives of the current Early childhood care curriculum are clear, while 9.04%

selected "not sure," "disagree," or "strongly disagree." Regarding the teaching model's ability to stimulate student interest, 35.73% strongly agree, while 14.38% responded with "not sure," "disagree," or "strongly disagree." When asked if the current teaching methods help students establish effective learning strategies, 36.66% strongly agree, and 12.98% responded with "not sure," "disagree," or "strongly disagree." As for the reasonableness of the assessment and evaluation methods in the Early childhood care curriculum, 40.37% strongly agree, and 8.12% selected "not sure," "disagree," or "strongly disagree."

These results indicate that the current teaching model has room for improvement in clarifying learning objectives, stimulating student interest, and helping students establish effective learning strategies through teaching methods. Optimizing the teaching model can enhance student interest, provide clearer learning objectives, and help students achieve practical application of their knowledge.

Table 6

The learning objectives of the Early Childhood Education program are clear to me.

Option	Number of Valid Responses	Percentage
A. Strongly Agree	168	38.98%
B. Agree	224	51.97%
C. Neutral	37	8.58%
D. Disagree	1	0.23%
E. Strongly Disagree	1	0.23%
Total	431	100%

[Single Choice Question]

Table 7

The teaching model of the Early Childhood Education program can stimulate my interest in learning.

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	154	35.73%
B. Agree	215	49.88%
C. Neutral	59	13.69%
D. Disagree	2	0.23%
E. Strongly Disagree	1	0.46%
Total	431	100%

Table 8

The current teaching methods of the Early Childhood Education program help me develop effective learning strategies.

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	158	36.66%
B. Agree	217	50.35%
C. Neutral	52	12.06%
D. Disagree	2	0.46%
E. Strongly Disagree	2	0.46%
Total	431	100%

Table 9

The assessment and evaluation methods of the Early Childhood Education program are reasonable.

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	174	40.37%
B. Agree	222	51.52%
C. Neutral	33	7.66%
D. Disagree	2	0.46%
E. Strongly Disagree	0	0%
Total	431	100%

Through in-depth interviews with current teachers about the teaching model in Early childhood care, it was found that most teachers still primarily use the traditional lecture method combined with interactive teaching.

T1: "I mainly use a combination of traditional lecturing and interactive teaching. In the classroom, I start by teaching basic theories and knowledge to help students establish a fundamental understanding of early childhood education. Then, through group discussions and interaction, I guide students to ask questions and think critically. This approach ensures that students grasp the foundational knowledge while stimulating their thinking, enhancing classroom engagement and interactivity. Student-centered teaching models are less common."

T10: "I often combine lecturing with small group discussions. In class, I first lay the foundation by explaining core theories and knowledge, and then organize group discussions and case analyses. This allows students to think about how to apply this knowledge in real-life situations. The discussion phase stimulates their thinking, promotes deeper understanding, and helps them learn teamwork and communication skills."

In a focus group interview with graduated students, they reflected that the teaching model used during their studies was still primarily traditional, and its application in actual work had limited effectiveness.

S1: "The traditional teaching model was the most basic teaching method I encountered during my time at school, mainly consisting of lectures and textbook knowledge transfer. The course content was systematic, and although this method helped me master the basic theories, it lacked practical application. The effect in actual work is quite limited."

From the interview content, it is evident that the current teaching model is still largely traditional and relatively single-dimensional. Teachers are more inclined to adopt student-centered teaching methods that are better aligned with current educational developments. This approach aims to stimulate students' interest in learning, increase their participation, and, in turn, help them internalize knowledge and apply it practically.

(2) Career Development Needs Dimension

In terms of students' understanding of the career development needs of the Early childhood care programs, only 37.59% strongly agree, while 11.83% are unsure or disagree. Regarding having a clear plan for personal career development, 34.8% strongly agree, and 17.40% are unsure, disagree, or strongly disagree. Regarding whether the current teaching model meets their career development needs, 35.96% strongly agree, while 16.48% are unsure, disagree, or strongly disagree.

When asked about their career direction, 50.81% of students chose to become caregivers, while the remaining students chose various other careers, including infant caregivers, family education advisors, and art teachers. Among these, art teachers (apart from caregivers) represent the second-highest percentage at 17.63%.

These data suggest that students have diverse career development needs, but the current teaching model remains relatively one-dimensional, with room for improvement in adapting to students' diverse career development requirements. Furthermore, art teaching is the second most preferred career direction after caregiver, highlighting the significant relationship between career development needs and students' learning motivation. Learning art knowledge can enhance students' motivation to learn, better helping them manage their career plans and pursue diverse career paths.

Table 10

The current teaching model of the Early Childhood Education program meets your career development needs.

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	155	35.96%
B. Agree	205	47.56%
C. Neutral	64	14.85%
D. Disagree	3	0.70%
E. Strongly Disagree	1	0.23%
Total	431	100%

Table 11

What is your expected personal career development direction?

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Early Childhood Caregiver	219	50.81%
B. Infant Care Specialist	18	4.18%
C. Family Education Counselor	27	6.26%
D. Art Teacher	91	21.11%
E. Other (Please specify)	76	17.63%
Total	431	100%

Through in-depth interviews with Early childhood care programs,, it was found that, after the transformation of the preschool education program, teachers are somewhat unclear about the direction of the current early childhood care talent development.

T1: "I am still a bit confused about the current career development needs of the early childhood care profession. After all, my previous teaching experience was with preschool education, and I am familiar with the talent development situation for preschool education students. However, the requirements for early childhood care talent development are still not very clear. Career development needs should be transformed, and the teaching model should also be adjusted according to different talent development plans."

T11: "Currently, the development direction of the Early childhood care programs shows a trend toward interdisciplinarity and multidimensionality. In early childhood care, it's not only about improving professional skills but also developing interdisciplinary abilities and technical adaptability to meet the rapidly growing and complicated needs of modern early childhood care."

T12: "I believe that the career development needs of the Early childhood care programs reflect a shift in the roles of practitioners and the raising of professional standards. From basic care functions to psychological health support, family education guidance, and the application of new technologies, the development trend in early childhood care will increasingly focus on cultivating comprehensive abilities."

T3: "Now, early childhood caregivers need to do more than just provide 'care.' They must integrate knowledge from areas like child psychology, education, language development, health nutrition, and first aid safety, while focusing on children's development in art, sports, language, and socialization. This requires early childhood care students not only to possess care skills but also to be able to provide scientific educational interventions and focus on the all-around development of children." T9: "Modern early childhood care work requires more interdisciplinary support, such as psychology and health sciences. Teachers should help students understand and master the basic theories of these disciplines and learn to apply this knowledge in practical caregiving work. Teachers can encourage students to expand their horizons and develop their ability to integrate interdisciplinary knowledge."

In focus group interviews with graduates regarding whether the curriculum and teaching model met the career development needs of early childhood care, the results showed that while the current teaching model needs to adapt to future career development demands, adjustments are still necessary. Since the early childhood care profession has been transformed, it requires a stronger emphasis on high-quality caregiving. Therefore, the teaching model should focus on integrating theory with real-world career scenarios during the early stages of the program to better prepare students for their professional needs. However, real-world settings are often complex, so students must develop multi-dimensional problem-solving abilities and be capable of applying interdisciplinary knowledge.

S1: "The school education provided us with a solid theoretical foundation, but in actual work, the focus is more on flexibility, interpersonal communication skills, and teaching management abilities. The school curriculum could pay more attention to skill-based practice, providing more internship opportunities and job-related training to help us better adapt to career development needs. I believe that the teaching model learned in school could be more tailored to career development by incorporating more situational simulations, allowing students to better combine theory with practice."

S2: "I think the current teaching model in the early childhood care program is starting to adapt to future career development needs in some ways, but there are still certain challenges and updates needed. With the continuous evolution of educational concepts, changes in society's needs for early childhood education, and the diversification of future work environments, the teaching model of early childhood care needs further reform and optimization. This can be achieved by integrating and applying professional knowledge more comprehensively to better meet future career development needs."

The interviews on career needs suggest that the connection between theory and practice in the current teaching model is still insufficient. To cope with the dynamic and complex work environment, we need to think in multidimensional ways and integrate knowledge to face challenges. Therefore, when optimizing the teaching model, we can consider a course integration model that enhances students' ability to integrate curricula, fostering interdisciplinary thinking and better equipping students to meet high-quality career development needs.

(3) the Cognitive and Attitudinal Dimension of the Music Curriculum Integration Teaching Model

Students strongly agree or somewhat agree that music plays an important role in early childhood care, with a combined percentage of 93.51%. Regarding the integration of music elements with early childhood care knowledge to enhance student interest, 93.51% of students strongly or somewhat agree. On the topic of how music courses can help integrate various professional courses, 91.43% strongly or somewhat agree. As for how the integration of music courses with early childhood care knowledge to care courses can provide diversity for career development, 92.35% of students strongly or somewhat agree.

These high percentages indicate that students place significant importance on the role of music in early childhood care and are eager to use music to enhance their interest in studying early childhood care courses. In terms of the willingness to participate in joint projects combining music and early childhood care courses, 90.26% of students expressed positive attitudes, showing a strong demand for the music-integrated teaching model.

Table 12

Do you think music plays an important role in early childhood education?

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	207	48.03%
B. Agree	196	45.49%
C. Neutral	26	6.03%
D. Disagree	2	0.46%
E. Strongly Disagree	0	0%
Total	431	100%

Table 13

Do you think combining music elements with early childhood education-related knowledge helps enhance your interest in learning?

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	201	46.64%
B. Agree	202	46.87%
C. Neutral	27	6.26%
D. Disagree	4	0.93%
E. Strongly Disagree	1	0.23%
Total	431	100%

Table 14

Integrating early childhood education courses into music lessons helps you connect the knowledge across various professional courses.

[Single Choice Question]

Option	Number of Valid Responses	Percentage
A. Strongly Agree	192	44.55%
B. Agree	202	46.87%
C. Neutral	35	8.12%
D. Disagree	1	0.23%
E. Strongly Disagree	1	0.23%
Total	431	100%

Table 15

Combining music courses with early childhood education courses can provide diversity for career development.

Option	Number of Valid Responses	Percentage
A. Strongly Agree	197	45.72%
B. Agree	201	46.64%
C. Neutral	32	7.42%
D. Disagree	1	0.23%
E. Strongly Disagree	0	0%
Total	431	100%

[Single Choice Question]

Through in-depth interviews with teachers about the current teaching model and whether it meets the requirements of the "Vocational School Art Curriculum Standards" issued by the Ministry of Education, it was found that the current model attempts to integrate music with other subjects but still needs further development. T1: "The current teaching model partially meets the requirements of the music curriculum standards, especially in integrating music, dance, and early childhood education courses. I have incorporated art elements into daily care courses. However, I think the relationship between music and other disciplines can be further strengthened, for example, by using music elements to help students understand child psychology and language development, reinforcing the connection between art courses and professional courses." T4: "Overall, the current teaching model has started integrating music with art courses. As a dual-teacher educator, I also hope to have more innovative methods to integrate the skills I possess. For example, music can help students understand the patterns of children's behavior, promoting their cognitive and emotional development. In the future, we could do more interdisciplinary integration in teaching content and methods to enhance the overall and systematic nature of the teaching." T5: "We have tried integrating music with care courses, for example, combining music and art courses with child development theory, helping students better understand how early childhood art education can promote cognitive and emotional development. However, from an overall perspective, the integration of courses can still be further deepened, especially in how to better use music education to help students understand specific issues in care practice."

Based on the interviews, although there have been attempts to integrate art courses, the integration with professional courses is not sufficient, and most teachers have not yet linked the courses. The results show that there is still a gap between the current integration and the national curriculum standards for course integration. However, as dual-teacher educators, many teachers expect to apply integrated skills in classroom teaching. Therefore, the integrated teaching model is necessary. Establishing connections between music courses and professional courses, using music education to help students understand specific issues in care practice, is also a key mission of the music curriculum standards in vocational schools.

In the focus group interviews with graduated students, S1 stated: "I think it's necessary to integrate music with the early childhood care curriculum. We often use music games to integrate with child care work. Creating a scenario makes it easier to enhance children's interest in learning and encourage active participation in activities. But we didn't have integrated courses in school, and early childhood education needs to integrate and promote the overall development of children. We had to explore this
thinking over a long period of time. If we had developed this thinking during our coursework, it might have made it easier for us to adapt to work after graduation." S2: "I think integrating music courses with early childhood care courses is very necessary. This interdisciplinary integration not only enriches students' professional knowledge and practical experience but also provides more creativity and possibilities for future early childhood education work. Music benefits the overall development of children's language and sensory abilities. Through singing, movement, and exercises like rhythm and tempo, it can help with emotional expression and social skills. Music also stimulates children's creativity and imagination."

The interviews with teachers and graduated students reflect that integrating music with early childhood care can enhance market competitiveness. Graduates can not only apply for caregiver positions but also compete for art teacher roles. Therefore, integrating music with early childhood care courses provides diversity for further education and employment opportunities. Both teachers and graduated students believe that the music-integrated teaching model meets the requirements of the national curriculum standards and professional demands, and that projects integrating music with professional courses are necessary.

The results are presented in a table format, including the following: Needs, Importance (W), Current Status (D), Priority (P), Implementation Cost (C), the final PNImodified value, and the ranking.

The PNImodified formula includes the following: Needs, Importance (W), Current Status (D), Priority (P), Implementation Cost (C), the final PNImodified value, and the ranking.

Analysis results: The need for music courses providing career development diversity has the highest priority (PNImodified value of 0.2642), indicating that students have strong expectations for the integration of music courses, and the current model has not fully met these expectations. The needs for music courses enhancing learning interest and music integration sparking innovation follow closely, showing that music courses have significant innovative potential within the teaching model.

The priority for reasonable assessment methods is the lowest (PNImodified value of 0.0870), which may suggest that the current satisfaction level for this need is relatively high or that its importance is relatively low.

The range of PNImodified values spans from 0.0870 (lowest) to 0.2642 (highest). The higher the value, the greater the combined priority of the need, indicating both its importance and unmet degree.

Music-related courses generally rank higher in priority, indicating that students have high expectations for the integration of music into early childhood education courses.

Non-music related teaching models and assessments have lower priority, possibly reflecting that these areas are relatively mature or less focused on.

a. Specific Analysis of Each Need

1) Rank 1: Music Courses Provide Career Development Diversity

PNImodified value: 0.2642

Analysis:

Importance score W = 4.7: The highest among all needs, showing students strongly recognize the role of music courses in career diversity.

Current status score D = 3.7: Indicates there is still room for improvement in this area.

High priority P = 1.4 and moderate cost C = 0.6 suggest the implementation of this need is feasible.

Suggestions:

Offer music-related career development modules, such as music education training, music therapy integrated with early childhood education, etc.

Introduce industry mentors or practical projects to help students expand career choices.

2) Rank 2: Music Courses Enhance Learning Interest

PNImodified value: 0.1922

Analysis:

Students highly value the importance of music courses for learning interest W =

4.6.

The current status score D = 3.9 is relatively high, suggesting a solid foundation, but still room for improvement.

Suggestions:

Incorporate music as a core teaching activity, such as using music-themed activities to enhance classroom engagement.

Design contextualized teaching, integrating music into early childhood care skills courses (e.g., child hygiene, language teaching, etc.).

3) Rank 8 (Lowest): Reasonable Assessment Methods

PNImodified value: 0.0870

Analysis:

Importance score W = 4.0 and current status D = 3.6 are both lower than other needs, indicating students pay less attention to assessment methods.

Low priority P = 1.0 suggests students are more adaptable to the current assessment methods.

Suggestions:

While the priority is low, assessment methods can still be further optimized, such as incorporating music practice assessments and encouraging diverse learning outcomes.

b. Key Analysis of the Overall Advantage of Music-Related Needs

Music-related needs have high PNImodified values, indicating that students generally have high expectations for music-integrated teaching.

The needs for music and innovation awareness (0.1920) and integration of music with courses (0.1820) follow closely, showing that music has significant potential to inspire creativity and integrate various subjects.

Optimizing Music-Related Needs:

Integrate music with modules like child psychology and art education through interdisciplinary collaboration.

Create "Music + Early Childhood Education" specialty programs that allow students to experience the practical role of music in education and career development.

Use technology (such as music teaching software) to enhance student interaction and engagement.

c. Analysis of the Gap Between Teaching Model Current Status and Career Needs

Highest current status achievement: Interactive and engaging course design D = 3.8, indicating that course design already emphasizes interactivity, but can still be enhanced through music or other innovative methods.

Lowest current status achievement: Career development diversity D = 3.7, highlighting its necessity for improvement due to its high importance.

d. Comprehensive Recommendations

Short-term Strategies:

Pilot music integration modules for high-priority music-related needs.

Strengthen content design to match career needs, such as internships and practical experiences focused on music education.

Long-term Strategies:

Establish a teaching improvement mechanism based on student feedback, regularly adjusting teaching models and course content.

Enhance students' career planning awareness, supporting them in achieving their career goals through personalized career guidance and contextualized teaching.

Please refer to Appendix 6 for the detailed table.

4.2 Design and Development of the Teaching Model

The researchers used the literature analysis, survey questionnaires, interview data from the first phase, and the requirements of the national arts curriculum standards as guidelines for developing the outline of the teaching model. This aims to enhance students' interdisciplinary thinking and curriculum integration skills, enabling them to adapt to diverse professional demands. The outline for the music-integrated teaching model for early childhood care programs consists of the following components: theoretical foundation, teaching objectives, teaching procedures, teaching strategies, and teaching evaluation.

4.2.1 Theoretical Basis

(1) Multiple Intelligences Theory (H. Gardner):

Focuses on the integration of musical intelligence with interdisciplinary abilities. Through interdisciplinary thinking within the framework of multiple intelligences, students are guided to understand the intrinsic connections between music and early childhood care curriculum knowledge.

- (2) Fogarty's Curriculum Integration Models
 - a. Shared Model: Exploration of overlapping concepts.
 - b. Webbed Model: Theme-based integration.
 - c. Integrated Model: Project-based, advanced-level integration.

These models establish a framework for the deep integration of theory and practice, gradually achieving a thorough fusion of music and early childhood care curricula.

(3) BSCS 5E Instructional Model

Utilizing the five phases: Engage, Explore, Explain, Elaborate, and Evaluate, this model emphasizes a student-centered, progressive learning process. In the Elaborate phase, the focus is on exploring and practicing curriculum integration.

(4) National Vocational School Arts Curriculum Standards

Ensures that the teaching framework aligns with vocational education curriculum standards, aiding students in developing curriculum integration and career adaptability skills through music-integrated courses.

4.2.2 Teaching Objectives

(1) Knowledge Objectives:

Master the theoretical knowledge and skills of the four major components of music education: singing, instrumental music, dance, and musical drama.

Establish connections between the four core areas of music education and the primary domains of early childhood care: life activities, learning activities, physical activities, and play activities.

(2) Skills Objectives:

Develop students' interdisciplinary thinking and curriculum integration abilities.

Enhance teamwork and problem-solving skills.

Apply childcare and educational skills effectively in comprehensive professional scenarios.

(3) Affective Objectives:

Foster students' artistic cultivation and passion for education.

Guide students to create diverse and enriching musical environments for early childhood care.

Establish a value recognition for the integration of music and early childhood education, enhancing students' professional ethics and sense of responsibility.

4.2.3 Teaching Procedures

The music-integrated teaching model for early childhood care courses is a framework for designing and implementing instruction based on the 5E instructional model. It emphasizes Engagement, Exploration, Explanation, Elaboration, and Evaluation. The Elaborate step in the 5E model incorporates Fogarty's curriculum integration methods, utilizing three stages: the Shared Model, Webbed Model, and Integrated Model. These stages are progressively implemented to deepen student understanding, increase the complexity and applicability of knowledge, and achieve curriculum integration alongside a comprehensive review of professional knowledge.

As this model combines the 5E instructional model with three stages of Fogarty's curriculum integration, it is referred to as the 5E3 teaching model for short.

The 5E3 teaching model includes the following procedural steps:

(1) Engage

The teacher introduces the task, guiding students to clarify learning objectives and spark their interest.

Example: Introduce the topic through a real-life scenario, such as addressing language development issues in a preschool classroom.

(2) Explore

Students gather resources and engage in self-directed learning to understand relevant knowledge and context.

Example: Analyze the role of musical rhythm in promoting language development in young children.

(3) Explain

The teacher guides students in developing problem-solving plans and clarifies key points and challenges.

Example: Explain how to design interactive activities using song rhythms to enhance language expression.

(4) Elaborate

Under the teacher's guidance, students design and implement integrated activities within the early childhood care curriculum. The elaboration is divided into three progressive stages:

a.Early Stage: Shared Model (Conceptual Cross-Exploration)

Objective: Guide students to integrate music with a single early childhood care subject, establishing initial conceptual connections.

Application: Combine "Singing and Music" with "Children's Language and Expression" to design rhythm-based activities that promote language development.

b.Mid Stage: Webbed Model (Thematic Integration for Problem-Solving)

Objective: Center on a specific theme (e.g., emotional management in children) to integrate multiple components of music and early childhood care courses.

Application: Combine "Instrumental Music" with "Child Psychology" to create music-based activities that foster teamwork and emotional regulation.

c.Advanced Stage: Integrated Model (High-Level Project Practice)

Objective: Design and complete comprehensive project plans by integrating knowledge from music courses and early childhood care programs

Application: Teachers and students collaboratively develop a complete music-care integrated teaching plan for application in real-life educational settings.

(5) Teaching Evaluation

At the end of each lesson, the evaluation phase (Evaluate) will assess students' learning outcomes and the effectiveness of activity implementation. Based on the feedback from the evaluation phase, the 5E teaching process will be optimized in the next phase, gradually improving the quality and difficulty of curriculum integration. Through the three progressive stages, students will be guided in curriculum integration, promoting higher-level application of the integration and achieving the transfer and application of interdisciplinary knowledge.

4.2.4 Teaching Strategies (Principles, Methods, and Content of Course Integration)

(1) Principles of Course Integration

a. Music-Centered Principle

The music courses serves as the main thread, integrating content from early childhood care courses. The curriculum revolves around the four modules of *Artistic Music Appreciation and Practice*—Singing Music, Instrumental Music, Dancing Music, and Music Drama—gradually expanding the practical applications of music in educational settings.

The 5E3 teaching model closely aligns with these modules, utilizing an interdisciplinary integration approach within the music curriculum to incorporate the required courses of early childhood care. Students gain a comprehensive understanding of and ability to apply the principles and techniques of music education while creating richer, more creative caregiving and educational opportunities for young children. For example, when learning "Early Childhood Language and Expression," singing and rhythmic games can be used to promote language development. Music activities should be designed with real caregiving contexts in mind, tailored to align with children's developmental needs.

b. Comprehensive Course Principle

Music and early childhood care courses are integrated into thematic activities, such as *Music and Emotional Development* or *Rhythmic Patterns and Singing Education*, broadening students' knowledge through interdisciplinary connections.

The 5E3 teaching model emphasizes knowledge integration across disciplines, blending elements from different fields to develop students' comprehensive knowledge systems and interdisciplinary thinking. Instead of focusing on a single discipline, this approach highlights the relationships and integration among disciplines. In this context, the teaching model integrates the four modules of the music curriculum—singing, instrumental music, dancing, and music drama—with the four modules of a child's daily activities—life activities, game activities, learning activities, and athletic activities—covering ten related courses.

c. Student Active Participation Principle

Students actively participate in course design, case discussions, and project-based learning to enhance their independent inquiry skills.

The 5E3 teaching model, rooted in constructivist theory, follows five steps: Engage, Explore, Explain, Elaborate, and Evaluate. Teachers guide students to transfer knowledge from professional courses, fostering interdisciplinary thinking. During the *Elaborate* phase, students integrate professional course content, building a comprehensive knowledge system. This progressive approach is applied across the early, middle, and late stages of course integration, gradually enabling students to solve complex, real-world vocational problems.

d. Context-Based Teaching Principle

Teaching content is designed around early childhood care scenarios (e.g., life activities, athletic activities, learning activities), converting course theory into practical skills for real-world applications.

Following constructivist principles, course content is situated within real-life contexts, revolving around a child's daily activities. The four primary modules life activities, athletic activities, learning activities, and game activities—are derived from early childhood care textbooks (published by Beijing Normal University Press). This process helps students understand music education while guiding them to integrate it into practical childcare scenarios. Over time, students develop interdisciplinary thinking and problem-solving abilities to address real-world challenges in early childhood care.

e.Collaborative Principle

Students collaborate in groups to complete project tasks, deepening their interdisciplinary understanding. Case studies, project-based learning, and similar methods support cooperative learning.

The 5E3 teaching model encourages students to identify themes of integration—concepts, skills, and attitudes—through collaborative exploration. Techniques such as case analysis, group discussions, and project-based learning foster interdisciplinary integration. The process includes self-assessment, peer evaluation, and teacher evaluation to refine and improve outcomes. Collaboration themes are developed not only through teacher discussions but also through communication and cooperation with students.

(2) Methods of Course Integration

Integrated Approach: Utilizing contextual, thematic, and project-based methods, curriculum integration is promoted through real-world cases, interdisciplinary thematic activities, and comprehensive project designs.

Task-driven project-based learning (PBL) emphasizes course integration and contextual application through teacher guidance and active student participation to collaboratively achieve project objectives. The integration process follows a main thread: leveraging Multiple Intelligences Theory, Fogarty's curriculum integration model, and the 5E teaching framework to progressively move from single-disciplinary content to advanced multi-layered projects.

a.Shared Model (Concept Building)

Features: Combines the music curriculum with a single early childhood education course to establish initial conceptual connections.

Applicable Scenarios: Situations where there are clear intersections between disciplines.

Example: Students explore overlapping concepts by integrating "children's language expression" with "musical rhythm," co-designing rhythm and language games. Activities are designed to support early childhood language development through a sense of rhythm.

b.Webbed Model (Theme-Based Problem Solving)

Features: Integrates music with multiple components of the early childhood care curriculum around a specific theme

Applicable Scenarios: Thematic teaching or problem-based

learning.

Example: Centered on the theme of "emotional management," students integrate "instrumental performance" with "child psychology" to design music activities that help children regulate emotions.

c.Integrated Model (Advanced Project Practice)

Features: Focuses on comprehensive project-based learning,

designing and completing integrated project plans.

Applicable Scenarios: Project-based learning.

Example: Teachers and students collaborate to design a holistic

early childhood education project that incorporates music, language, and physical activities.

Table 16

Shared model (Concept)	\bigcirc	Features: Combining music courses with individual early childhood education courses to establish preliminary conceptual connections. Applicable scenarios: Situations where there are clear intersections between subjects.
Webbed model (Theme)	8-8	Features: Focusing on a specific theme, integrating multiple content areas of music and early childhood care courses. Applicable scenarios: Theme-based teaching or problem-oriented learning.
Integrated model (project)		Features: Centered on complete project-based learning, designing and completing comprehensive project plans. Applicable scenarios: Project-based learning.

(3) Content of Curriculum Integration

Content Integration: Align the four modules of the nationally prescribed vocational school music curriculum (singing, instrumental music, dance, and drama) with the four major components of the early childhood care curriculum (life, learning, play, and physical activities). This approach aims to develop students' ability to integrate knowledge and apply music to address practical problems in early childhood education.

a. Music Content

The Arts: Music Appreciation and Practice curriculum, developed by Higher Education Press and China Textbook Development Institute for the national "14th Five-Year Plan" for vocational school arts education, adheres to the vocational school course standard. It includes 18 hours per semester for appreciation courses and 18 hours for practice courses, totaling 36 hours per semester and 9 units in total. Over three years, the curriculum comprises 216 hours. Integrated course designs are based on the practical segments.

b. Core Courses in Early Childhood Care

Childcare and Nurturing Childcare and Development Kindergarten Environment Design Montessori Teaching Method Kindergarten Play Activities Designing Teaching Activities for Children Children's Literature Appreciation and Expression Caregiver's Communication Skills Child Hygiene and Health Arts Appreciation and Practice (Dance)

c. Integration Content

Music components—*Singing Music, Instrumental Music, Dancing Music,* and *Musical Play*—are integrated with the early childhood care curriculum's four domains: *Life Activities, Play Activities, Learning Activities,* and *Physical Activities.* These align with ten core professional courses, fostering students' skills in course integration and cross-disciplinary problem-solving.

d. Examples of Integrated Content

Singing Music

Objective: Enhance children's sense of rhythm and intonation

in language.

Integrated Course: Combined with *Children's Language and Expression*, expands children's language abilities through singing activities.

Practice: Design singing games to help children practice pronunciation and emotional expression.

Instrumental Music

Objective: Develop collaboration skills and sensory

awareness.

Integrated Course: Paired with *Child Psychology*, promotes social cognition through instrumental performance.

Practice: Design group activities with instruments like xylophones or tambourines to observe children's teamwork skills.

Dancing Music

Objective: Improve physical coordination and sense of

rhythm.

Integrated Course: Aligned with *Child Hygiene and Health*, supports physical development.

Practice: Create dance movements that guide children in enhancing body control through musical rhythms.

Musical Play

Objective: Foster language skills and imagination.

Integrated Course: Combined with Caregiver Communication

Skills, enhances children's engagement through situational learning.

Practice: Adapt children's stories into musical drama activities

to improve their expression abilities.

As part of the early childhood care curriculum's public

compulsory courses, the arts curriculum includes *Music*, *Dance*, and *Visual Arts*. The music curriculum is a distinct branch within this larger framework.

Music Course Teaching Evaluation Table

Objective: To scientifically and comprehensively evaluate

students' learning outcomes in the music course.

Table 17

Four Major Sections of Daily Routine in Early Childhood	Related Subjects	Music Content	
Life Activities	Childcare	<i>(Singing)</i> Units 1-4: 16 class hours	
	Childcare and Nurturing		
	Kindergarten Environment Design		
	Montessori Teaching Method		
Play Activities	Kindergarten Play Activities	<i>(Instrumental Music)</i> Units 5-6: 8 class hours	
	Designing Teaching Activities for Children		
Learning Activities	Children's Literature Appreciation and Expression	<i>(Musical Play)</i> Units 7-8: 8 class hours	
	Caregiver's Communication Skills		
Physical Activities	Child Hygiene and Health	<i>(Dancing Music)</i> Unit 9: 4 class hours	
	Arts Appreciation and Practice (Dance)		
Table 18			

Music Category	Objective	Integrated Course	Practice
Singing Music	Enhance children's sense of rhythm and intonation in language.	Combined with <i>Children's</i> <i>Language and Expression</i> , expands children's language abilities through singing activities.	Design singing games to help children practice pronunciation and emotional expression.
Instrumental Music	Develop collaboration skills and sensory awareness.	Paired with <i>Child Psychology,</i> promotes social cognition through instrumental performance.	Design group activities with instruments like xylophones or tambourines to observe children's teamwork skills.
Dancing Music	Improve physical coordination and sense of rhythm.	Aligned with <i>Child Hygiene</i> <i>and Health</i> , supports physical development.	Create dance movements that guide children in enhancing body control through musical rhythms.
Musical Play	Foster language skills and imagination.	Combined with <i>Caregiver</i> <i>Communication Skills</i> , enhances children's engagement through situational learning.	Adapt children's stories into musical drama activities to improve their expression abilities.



Examples of Content Integration Between Music Modules and Early Childhood Care Modules:

Figure 3 Shared model



Figure 5 Integrated model

4.2.5 Teaching Evaluation

To scientifically and comprehensively evaluate students' learning outcomes in music courses, the scoring system aligns with the national art curriculum evaluation standards, incorporating three main evaluation methods: formative evaluation, performance evaluation, and summative evaluation. The evaluation is conducted across two dimensions: musical content and integrated curriculum. The details are as follows:

(1) Scoring System and Weight Distribution

a. Formative Evaluation (30%)

Content: Assess students' participation, enthusiasm, task completion, self-reflection, and improvement in daily learning activities.

Focus: Emphasize students' initiative and continuous progress during the learning process.

Forms:

Classroom performance records (active listening, answering questions, classroom practice, etc.)

Group task completion (efficiency in collaborative learning and

task division)

Active participation in group discussions (skills in questioning, expressing, and summarizing).

b. Performance Evaluation (40%)

Content: Evaluate students' musical skills and their application in practical teaching scenarios.

Focus: Assess students' musical practice abilities and their integration of disciplines.

Forms:

Musical performance (solo, ensemble, instrumental performance,

etc.)

Singing (solo, chorus, creative performance, etc.)

Dance and drama performance (creative tasks involving music)

Preschool music teaching activity organization and design (for

preschool education students).

c. Summative Evaluation (30%)

Content: Conduct a comprehensive assessment of students' performance in curriculum integration through interdisciplinary project case analysis.

Focus: Emphasize students' problem-solving abilities and the design and implementation of innovative curriculum integration plans.

Forms:

Project plan design: Design interdisciplinary course plans based on practical teaching or work scenarios.

Implementation summary report: Write a project outcome summary and analyze the implementation results.

Evaluation and feedback: Combine teacher assessments and peer feedback to evaluate the effectiveness and innovation of the plan.

(2) Scoring Content and Dual-Dimensional Assessment

a. Musical Content Assessment

Objective: Assess students' mastery of theoretical knowledge and practical skills in the following areas of music:

Singing: Vocal techniques, pitch and rhythm accuracy, emotional

expression.

Instrumental Performance: Playing skills, understanding of musical styles, collaboration abilities.

Dance: Coordination with music, expressiveness.

Musical Drama: Creativity in roles, integration of music and

performance.

b. Integrated Curriculum Assessment

Objective: Focus on students' interdisciplinary applications and curriculum integration skills, particularly in the following aspects:

Teaching Design Skills: Innovative integration of music with other

disciplines.

Case Analysis Skills: Analyze and design music courses based on real-world scenarios.

Comprehensive Practice Skills: Demonstrate music's role in enhancing students' overall development in practice.

(3) Principles for Comprehensive Evaluation

Diversified Evaluation: Combine qualitative and quantitative methods, focusing on students' individual development and learning progress.

Incentive-Based Evaluation: Provide feedback to guide students toward further improvement and enhance their intrinsic motivation for learning.

Comprehensive Evaluation: Assess knowledge, skills, and attitudes holistically to reflect students' overall abilities.



Table 19

Evaluation Method	Weight	Evaluation Content	Assessment Dimensions and Forms	Scoring Criteria
Formative Evaluation	30%	Assess students' participation, enthusiasm, task completion, and self- reflection during daily learning activities.	 Class performance records (active listening, answering questions, classroom practice) Group task completion (efficiency in collaborative learning and task division) Active participation in group discussions (questioning, expressing, and summarizing skills) 	Initiative, collaboration, and continuous improvement ability
Performance Evaluation	40%	Evaluate students' musical skills and their application in teaching practices.	 Musical performance (solo, ensemble, instrumental performance) Singing (solo, chorus, creative performance) Dance and drama performance (creative tasks involving music) Preschool music teaching activity organization and design 	Skill level, practical application
Summative Evaluation	30%	Assess students' innovation and problem-solving abilities through interdisciplinary project case analysis.	 Project plan design (design interdisciplinary course plans based on teaching or work scenarios) Implementation summary report (analyze implementation outcomes) Evaluation and feedback (teacher assessments and peer reviews) 	Innovation, practicality, effectiveness

Table 20

Assessment Dimension	Assessment Objectives	Specific Content and Scoring Criteria
Music Content Assessment	- Assess students' mastery of theoretical knowledge and practical skills in music.	 Singing: Vocal techniques, pitch and rhythm accuracy, emotional expression Instrumental Performance: Playing skills, understanding of musical styles, collaboration Dance: Coordination with music, expressiveness Musical Drama: Creativity in roles, integration of music and performance
Integrated Course Assessment	- Evaluate students' interdisciplinary applications and course integration skills.	 Teaching Design Skills: Innovative integration of music with other disciplines Case Analysis Skills: Analyze and design music courses based on real- world scenarios Comprehensive Practice Skills: Reflect music's role in enhancing students' holistic development

Evaluation Content and Dual-Dimension Assessment

The draft diagram of the teaching model, based on the 5E instructional model, Fogarty's curriculum integration framework, and the data collected in the first phase, is illustrated as follows:



Figure 6

Revised Diagram Analysis:

On the right side of each of Fogarty's three models, the applicable scope and icons for each model have been added.

Teaching Model Components Added: The diagram visually integrates the theoretical framework with the layered design of actual teaching, providing a clear pathway for the teaching practice of music and early childhood education courses. The three teaching models (Shared Model, Webbed Model, Integrated Model) progressively demonstrate the deepening process, reflecting the gradual transition from basic concepts (concept) to themes (theme) and then to projects (project).

Diagram Analysis of the Teaching Model:

The structure is mainly divided into three levels: top, middle, and

bottom.

Middle Level: 5E Model (Engage, Explore, Explain, Elaborate, Evaluate)

Each of the three concentric circles incorporates the five stages of the BSCS 5E teaching model. The process begins with Engage and progresses gradually. During the Elaborate phase, students are guided to attempt course integration, with Evaluate serving as the core to drive the iterative progression of the teaching model. The process leverages Fogarty's Shared Model, Webbed Model, and Integrated Model to gradually enhance the quality and complexity of students' course integration skills.

The steps of each cycle in the 5E teaching model are as follows:

Engage: Spark students' interest through real-world problems or case studies.

Explore: Students engage in independent learning, gather resources, and analyze relevant knowledge.

Explain: The teacher guides students in organizing key concepts and formulating solutions.

Elaborate: Design and implement comprehensive activities within the framework of Fogarty's three curriculum integration models:

a. Shared Model (Concept): Conduct initial interdisciplinary exploration focused on a single concept.

b. Webbed Model (Theme): Conduct multidisciplinary integration centered on a specific theme.

c. Integrated Model (Project): Deepen integration and application through comprehensive project-based practice.

Evaluate: Assess students' learning outcomes and the effectiveness of activities at the end of each stage. Use feedback to refine the 5E teaching process, advancing curriculum integration to a higher level and enabling students to transfer and apply interdisciplinary knowledge.

Top Level: Fogarty's ELABORATE Cross-Disciplinary Concept

At the top of the diagram is "ELABORATE," representing the extension phase of the 5E teaching model. Course integration primarily begins at this stage, with Fogarty's curriculum integration serving as the core theoretical framework in the second layer.

This approach facilitates students' cross-disciplinary integration through the application of Fogarty's curriculum integration principles.

Bottom Level: Integration of Music and Early Childhood Care

The bottom of the diagram is labeled "Music and Early Childhood Care," highlighting the application domain and disciplinary context of the teaching model. Music serves as the central thread, progressively integrating music courses with early childhood education courses.

5E3: Name of the Teaching Model

The model is named "5E3," reflecting its foundation on the 5E teaching model. It incorporates Fogarty's three teaching integration models to achieve a step-by-step integration of music courses and early childhood care courses, embodying the teaching philosophy of progressive course integration.

The diagram illustrates an integration model consisting of three circles of different sizes based on the 5E teaching model. It progressively guides students from concept exploration to thematic integration and comprehensive project practice. By combining Fogarty's curriculum integration models, the approach achieves deep integration of music and early childhood education, providing students with a holistic pathway to develop interdisciplinary thinking and practical skills.

4.2.6 Curriculum Integration Outline Case Design

(1) Course Title : Curriculum Teaching Outline Based on Music and Early Childhood Care Integration.

(2) Total Hours: 36 hours/each term (Music Practice Course)

(3) Course Objectives:

Knowledge Objective: Understand the applicability of the four major areas of music curriculum (singing, instrumental music, dance, and music theater) in different early childhood care themes.

Ability Objective: Design interdisciplinary activities by flexibly using various forms of music around an early childhood care theme.

Emotional Objective: Students experience the practicality of combining music with early childhood care themes, enhancing teamwork awareness.

5E3 Teaching Model (Experience Engage, Explore, Explain, Elaborate, Evaluate) Integrated with Fogarty's Curriculum Integration Models (Shared Model, Webbed Model, Integrated Model) for Case Design.

Pre-Curriculum Integration Teaching Case: Shared Model (Conceptual Cross-Exploration)

Task: Guide students to establish an initial connection between music courses and individual early childhood care courses, exploring the intersection of concepts from different domains.

(4) Module 1: Life Activity Module & Singing Music Integration

Theme: Basic Singing Techniques & Music Design for Life Scenes Objectives: Master basic singing techniques.

Use music to design early childhood life scene activities (e.g., "Morning Greeting Song", "Nap Time Quiet Song").

Case Design:

Lesson 1: Morning Greeting Song Design

Experience (Engage): Listen to various styles of greeting songs and feel the impact of melody and lyrics on children's emotions.

Task: Students share songs suitable for greeting children in the morning in small groups.

Explore: Discuss how to express the core emotion of greeting scenes with simple melody and lyrics.

Practice: In groups, create a line of melody and lyrics for a greeting song.

Explain: Guide students to compare the rhythm and lyrical characteristics of good children's songs and discuss the educational significance of greeting songs.

Elaborate:

Early Stage Shared Model (Conceptual Cross-Exploration): Students design a rhythm-based greeting song to promote children's language development, connecting with the course "Children's Language and Expression."

Middle Stage Webbed Model (Theme Integration to Solve Problems): Design a morning greeting activity based on the theme "Welcoming the New Day," integrating "Singing Music" and "Early Childhood Care" to encourage children's active emotional expression.

Last Stage Integrated Model (Advanced Project Practice): Design a complete kindergarten morning activity plan, incorporating music, language guidance, and teacher-child interaction, with a classroom simulation.

Evaluate:

Each group presents their greeting song design. The teacher and peers provide feedback and rate the designs based on fun and educational value.

(5) Module 2: Game Activity Module (8 hours | Units 5-6 | Instrumental Music)

Theme: Basic Instrumental Music Performance & Game Design

Objectives:

Master simple instrumental performance techniques.

Use instruments to design interactive games for children (e.g., "Rhythm

Percussion Game", "Sound Matching Activity").

Case Design:

Lesson 2: Rhythm Percussion Game

Engage: Listen to rhythm-heavy percussion music, mimic the striking movements, and spark interest.

Activity: Use hands or simple instruments to imitate common sounds (e.g., raindrops, footsteps).

Explore: Analyze rhythm patterns that are easy for children to understand and imitate (e.g., "Slow-Fast-Slow").

Practice: Students create simple rhythm patterns using percussion instruments (e.g., tambourine, wooden fish).

Explain: Discuss the educational significance of rhythm games, such as developing rhythm sense and concentration.

Elaborate:

Early Stage Shared Model (Conceptual Cross-Exploration): Guide students to combine "Children's Psychology" with rhythm games, analyzing how rhythm games can help with emotional regulation and concentration.

Midium Stage Webbed Model (Theme Integration to Solve Problems): Design rhythm-based team games integrating "Instrumental Music" and "Children's Play Activities" with the theme of "Team Collaboration."

Last Stage Integrated Model (Advanced Project Practice): Students design an integrated music activity on the theme of "Happy Percussion," including rhythm exercises, teamwork, and real-world kindergarten applications.

Evaluate:

Each group demonstrates their rhythm game design, and the teacher and peers assess them based on rhythm complexity, team interaction, and child engagement.

(6) Module 3: Learning Activity Module (8 hours | Units 7-8 | Music Theater)

Theme: Music Theater Creation & Integration with Children's Literature Objectives:

Learn to design music theater scenes.

Use theater to enhance children's language expression and learning interest (e.g., "Story Character Role Play Song").

Case Design:

Lesson 3: Character Role Play Song Creation

Experience (Engage): Watch a music performance video of a classic children's story (e.g., "The Three Little Pigs") and feel the combination of character language and actions.

Task: Students imitate a character and use simple language to describe actions and emotions.

Explore: Analyze how character language is integrated with music rhythm.

Practice: Create character dialogue and accompanying music for "The Three Little Pigs."

Explain: Guide students to refine the music theater design, focusing on emotional expression and rhythm matching in language.

Elaborate:

Early Stage Shared Model (Conceptual Cross-Exploration): Combine "Music Theater" with "Children's Literature Appreciation & Expression" and create initial character dialogues and music, reflecting the emotional expression of the literary theme.

Middle Stage Webbed Model (Theme Integration to Solve Problems): Design a music theater activity to enhance children's language and social skills, based on the theme "Scene Story Performance," integrating "Drama Music" and "Caregiver Communication Skills."

Last Stage Integrated Model (Advanced Project Practice): Students complete a comprehensive music theater activity design, from story creation, role arrangement, to music composition, and perform it.

Evaluate:

Each group performs their character role play song, and the teacher assesses them on emotional expression, fun, and educational significance, offering improvement suggestions.

(7)Module 4: Physical Activity Module (4 hours | Unit 9 | Dance)

Theme: Dance & Rhythm Integration for Children's Physical Activity Objectives:

Master basic dance movements and music rhythm techniques.

Design physical activities that promote children's coordination (e.g., "Healthy Gymnastics Dance").

Case Design:

Lesson 4: Healthy Gymnastics Dance

Experience (Engage): Watch a children's rhythmic gymnastics video and experience the interaction between music and movement.

Task: Imitate simple body movements from the video, feeling the connection between rhythm and movement.

Explore: Analyze the patterns of matching movements (e.g., jumping, stretching) with music rhythm.

Practice: Design simple movements and practice with background music.

Explain: Discuss the role of dance activities in children's coordination development.

Elaborate:

Early Stage Shared Model (Conceptual Cross-Exploration): Combine dance movements with "Children's Health and Hygiene" to design rhythmic movements that promote children's physical health.

Midium Stage Webbed Model (Theme Integration to Solve Problems): Design enjoyable rhythmic activities for children, based on the theme "Healthy Exercise," integrating "Dance Music" and "Art Appreciation & Practice."

Last Stage Integrated Model (Advanced Project Practice): Students design and practice a comprehensive healthy gymnastics dance activity, incorporating music selection, movement arrangement, and educational theme integration, and conduct a class demonstration.

Evaluate:

Each group demonstrates their healthy gymnastics dance design, and the teacher assesses them based on movement difficulty, music matching, and educational value, providing optimization feedback.

For more course cases, please refer to Appendix 4.

4.3 Expert Validation of the Teaching Model's Quality

After completing the construction and optimization of the teaching model, the research entered the third phase—the expert validation stage. This phase involved inviting domain experts to review and evaluate the teaching model, verifying its scientific basis, feasibility, and practicality, and providing theoretical support and practical guidance for further refining the model.

Expert Introduction: The expert panel consists of five experts, including researchers and department heads from the fields of vocational education, early childhood education, music education, and curriculum development in teaching models.

4.3.1 Evaluation Content and Process

After the draft of the teaching model was proposed, the evaluation of the teaching model was conducted by 5 experts for expert validation. This included quantitative evaluation and qualitative analysis, considering the appropriateness of the theoretical basis of the teaching model, the orientation and clarity of the teaching objectives, the adaptability and innovation of teaching strategies, the operability of the teaching process, student collaboration and participation, and the scientific and comprehensive nature of teaching assessment.

Content: Provide specific activities (such as music and emotional management course design), and experts evaluate the feasibility and effectiveness after experiencing them.

Expert Evaluation Process:

a.Expert Training: Before the evaluation, a brief introduction to the design background and objectives of the teaching model is provided to ensure experts understand the core content of the model.

b.Scoring and Interviews: The evaluation is conducted through a combination of model validation scales and focus group interviews, allowing for a comprehensive assessment of the teaching model from multiple perspectives, with both quantitative scores and qualitative feedback.

c.Data Analysis: The scoring results from all experts are collected, and the average score is calculated. The feedback from the focus group interviews is then analyzed.

The expert evaluation scale scores the following dimensions:

Clarity of objectives

Interdisciplinary integration of content

Scientific design of teaching procedures

Innovation of teaching strategies

Promotion of student ability development

Scientific and comprehensive nature of teaching evaluation

Practical feasibility of the teaching model

Alignment with social needs.

Focus group interview content: Verifying the detailed aspects of the teaching model.

a.Clarity of Objectives

The evaluation of clarity of objectives received consistently high scores, ranging from 4.5 to 5. Experts 1, 3, and 5 awarded full marks (5), indicating that the teaching objectives were deemed clear and comprehensive. Experts 2 and 4 gave slightly lower scores of 4.5. The average score of 4.8 reflects that the teaching objectives were well-defined, covering knowledge, skills, and emotional goals.

b.Interdisciplinary Integration of Content

Scores in this dimension were also very high. Experts 1 and 2 gave full marks (5), while Experts 3 and 5 rated it 4.5. Expert 4 also awarded a perfect score of 5. This demonstrates a general consensus that the integration of music with core early childhood education content was logical and practical. The average score of 4.8 highlights strong agreement among experts regarding the interdisciplinary integration.

c.Scientific Design of Teaching Procedures

Scores in this dimension showed more variation, ranging from 4 to 5. Expert 3 gave a score of 5, Experts 1, 4, and 5 rated it 4.5, while Expert 2 gave it a 4. This suggests differing opinions on whether each stage (Engage, Explore, Explain, Elaborate, Evaluate) aligned with students' cognitive characteristics and learning principles. The average score of 4.5 indicates that the teaching procedure design was generally seen as scientifically sound.

d.Innovation in Teaching Strategies

Experts 1, 2, and 3 gave full marks (5), while Experts 4 and 5 rated it 4.5. Methods such as situational, thematic, and project-based approaches were considered highly innovative in stimulating student interest and enhancing learning outcomes. The average score of 4.8 reflects a high level of appreciation for innovation in teaching strategies.

e.Promotion of Student Skill Development

Experts generally agreed that the model effectively promotes student skill development, with scores ranging from 4 to 5. Expert 3 gave a score of 4, while other experts rated it 4.5 or 5. The model was found to significantly enhance interdisciplinary thinking, teamwork, practical skills, and problem-solving abilities. The average score of 4.5 underscores its effectiveness in fostering student development.

f.Scientific and Comprehensive Teaching Evaluation

All experts awarded the same score of 4.5 for this dimension, reflecting agreement that the evaluation system was comprehensive and scientific. It effectively assessed student learning outcomes and course integration results, covering formative, performance-based, and summative assessments. The average score of 4.5 highlights its thoroughness.

g.Alignment with Social Needs

Experts 1, 2, 4, and 5 gave full marks (5), while Expert 3 rated it 4.5. This indicates a strong consensus that the model aligns with the needs of high-quality early childhood education development and the goals of the "1+X" certification system. The average score of 4.9 reflects a high level of recognition and alignment with societal demands.

h.Practical Operability of the Course Model

Scores in this dimension were relatively lower, ranging from 4 to 4.5. Experts 1, 3, and 4 gave scores of 4, while Experts 2 and 5 rated it 4.5. This suggests that some experts foresee challenges in implementing the model in vocational schools, particularly concerning resource and technical requirements. The average score of 4.2 indicates that while the model is feasible, certain challenges need to be addressed.

Summary of Expert Feedback

Overall, the experts provided positive evaluations of the 5E3 teaching model, especially in dimensions such as clarity of objectives, interdisciplinary integration of content, and alignment with social needs. However, differing opinions emerged regarding the scientific design of teaching procedures and the practical operability of the course model, suggesting areas for improvement. On the whole, the high average scores across dimensions highlight the overall strengths of the model and its significant potential for effective implementation.

(2) Focus Group Interviews

Expert 1 (Education Policy Scholar):

Currently, early childhood education policies emphasize "high-quality" development, while vocational schools' early childhood care programs often face a mismatch between curriculum design and industry demands. The interdisciplinary teaching model innovatively integrates musical intelligence into the core curriculum of early childhood care, aligning with policy directions and promoting the alignment of vocational education with societal needs. Based on the analysis of the reliability and validity of the survey and its conclusions, students, teachers, and graduates highly recognize the music-integrated teaching model. The combination of formative, performance-based, and summative evaluations allows for a comprehensive assessment of students' learning outcomes and the practicality of the teaching model. It is recommended to continue optimizing evaluation dimensions during implementation.

Expert 2 (Early Childhood Education Researcher):

Interdisciplinary teaching models can stimulate students' creativity and enhance their comprehensive practical abilities. Under the "1+X" certificate system, this model not only improves students' employment competitiveness but also aligns with the national goal of cultivating multi-skilled, interdisciplinary talent.

Expert 3 (Music Education Expert):

The diverse characteristics of music make it highly suitable for interdisciplinary integration, particularly in the field of early childhood care. Music facilitates holistic development in areas such as language, emotional regulation, and physical coordination. The 5E3 teaching model proposed in this study gradually promotes deep integration of music and care courses, offering an effective pathway that bridges theory and practice.

Expert 4 (Vocational Education Expert):

The curriculum cases designed with music integration, such as morning greeting songs and rhythm percussion games, reflect the characteristics of aligning course content with children's real-life experiences and vocational applications. Students not only master knowledge points but also apply what they learn in authentic scenarios. This teaching model is worth further promotion.

Expert 5 (Teaching Model Design Expert):

In real kindergarten settings, the music-integrated teaching model better meets the diverse needs of children. Particularly, the Shared Model phase helps novice teachers quickly identify intersections between disciplines, while the Webbed and Integrated Models assist experienced teachers in deepening curriculum innovation.

Focus Group Evaluation Summary and Recommendations:

a.For the Teaching Model Diagram:

It is recommended to incorporate the key components of Fogarty's teaching model's three phases into the 5E3 teaching model to more clearly illustrate the gradual progression from foundational concepts to thematic learning and then to project-based deepening.

b.For the Framework Content of the Five Sections of the Teaching

Model:

Refining Teaching Objectives:

It is suggested to further detail the knowledge, skill, and emotional objectives, adding guidance for developing students' abilities at different levels. For example, in skill objectives, clarify whether students need to independently design comprehensive course plans.

Optimizing Teaching Strategies:

In course design, personalized teaching strategies can be strengthened. For instance, more tasks under the Shared Model could be designed for students with weaker foundations, helping them establish basic connections between music and early childhood care courses. In the Webbed Model, enhance connections with real educational scenarios by involving kindergarten teachers in teaching and providing more practical case studies.

Enhancing Diversity in Course Resources:

Offer a richer variety of interdisciplinary teaching resources, such as integrating AI tools to assist in music creation, enabling students to complete project designs more efficiently.

Strengthening Teacher Training:

Promote the participation of frontline teachers in training for the music-integrated teaching model. Workshops can be organized to explain theoretical foundations and practical cases, gradually aligning teaching concepts with practical applications.

Building a Long-term Evaluation Mechanism:

In the evaluation process, add tracking and feedback on students' career development data after graduation to explore the long-term impact of the music-integrated curriculum on their professional growth.

By implementing these expert interview insights and evaluation recommendations, this teaching model provides a scientific, practical, and policy-aligned solution for early childhood care programs, laying a solid foundation for future teaching reforms.

4.3.2 Expert Validation Results

1.Survey Questionnaire

Experts' validation of the teaching model's effectiveness is assessed using a 5-point Likert scale (1 to 5):

1: Strongly Disagree (indicating the expert completely believes the teaching model is ineffective)

2: Disagree (indicating the expert believes the teaching model is ineffective or has poor results)

3: Neutral (indicating uncertainty or no obvious effectiveness)
4: Agree (indicating the expert believes the teaching model is effective)

5: Strongly Agree (indicating the expert believes the teaching model is highly effective)

Typically, a score of 4 (Agree) or 5 (Strongly Agree) indicates that the teaching model is considered effective. If the average score of the experts reaches or exceeds 4, it suggests that they generally believe the teaching model is effective.

Table 21

Scoring Dimension12345AverageClarity of Objectives54.554.554.8Interdisciplinary Integration554.554.54.8Scientific Design of 5E Phases4.5454.54.54.5Innovation in Teaching Strategies5554.54.54.8Promotion of Student Ability4.54.554.54.54.5Comprehensive Evaluation4.54.54.54.54.54.5Alignment with Societal Needs554.5554.9		Expert	Expert	Expert	Expert	Expert	
Clarity of Objectives54.554.8Interdisciplinary Integration554.554.5Scientific Design of 5E Phases4.54.554.54.5Innovation in Teaching Strategies5554.54.5Promotion of Student Ability4.54.54.54.54.5Comprehensive Evaluation4.54.54.54.54.5Alignment with Societal Needs554.5554.9	Scoring Dimension	1	2	3	4	5	Average
Interdisciplinary Integration554.55.84.54.8Scientific Design of 5E Phases4.54.554.54.54.5Innovation in Teaching Strategies555.84.54.8Promotion of Student Ability4.55.85.84.54.8Comprehensive Evaluation4.54.54.54.54.5Alignment with Societal Needs554.5554.9	Clarity of Objectives	5	4.5	5	4.5	5	4.8
Scientific Design of 5E Phases4.54.54.54.54.54.5Innovation in Teaching Strategies554.54.54.8Promotion of Student Ability4.54.54.54.8Comprehensive Evaluation4.54.54.54.54.5Alignment with Societal Needs554.5554.9	Interdisciplinary Integration	5	5	4.5	5	4.5	4.8
Innovation in Teaching Strategies554.54.8Promotion of Student Ability4.54.54.54.54.5Comprehensive Evaluation4.54.54.54.54.54.5Alignment with Societal Needs554.5554.9	Scientific Design of 5E Phases	4.5	4	5	4.5	4.5	4.5
Promotion of Student Ability4.54.54.65.04.54.5Comprehensive Evaluation4.54.54.54.54.54.54.5Alignment with Societal Needs554.5554.9	Innovation in Teaching Strategies	5	5	5	4.5	4.5	4.8
Comprehensive Evaluation 4.5 4.5 4.5 4.5 4.5 Alignment with Societal 5 5 4.5 5 5 4.9 Needs S S S S S S S A	Promotion of Student Ability	4.5	4.5	4	5	4.5	4.5
Alignment with Societal 5 5 4.5 5 5 4.9	Comprehensive Evaluation	4.5	4.5	4.5	4.5	4.5	4.5
	Alignment with Societal Needs	5	5	4.5	5	5	4.9
Practical Feasibility 4 4.5 4 4.5 4.2	Practical Feasibility	4	4.5	4	4	4.5	4.2

5E3 Teaching Model Effectiveness Evaluation - Expert Scoring Table

Summary of Expert Evaluation Expert Evaluation Summary and

Recommendations

The 5E3 teaching model, after expert scale scoring and focus group interviews, demonstrates high scientific and practical value. The following is a comprehensive summary of the evaluation and feedback:

Overall Evaluation of Model Effectiveness

Experts generally recognize the clarity of objectives, interdisciplinary integration, and alignment with social needs in the 5E3 teaching model. They believe that this model effectively promotes student ability development, particularly in the deep integration of music and early childhood care courses, showing both innovation and

practical value. However, there is still room for improvement in the scientific design of teaching procedures and the practical feasibility of the model, requiring further optimization of the details.

2. Core Improvement Suggestions

a. Optimization of the Teaching Model Diagram: Incorporate the three stages of Fogarty's teaching model (Shared Model, Webbed Model, Integrated Model) into the 5E3 teaching model diagram, to more clearly present the progressive logic of teaching design from concept exploration to theme integration, and finally to project practice.

b. Suggestions for Teaching Model Outline Content:

c. Refining Objectives: Specify teaching objectives more clearly, outlining the cultivation requirements for different levels of student abilities, such as adding indicators for developing students' ability to design complete course plans under the ability objectives.

d. Improvement of Strategies:

1) Add tasks for students with weak foundations in the Shared Model to help them establish basic connections between music and early childhood education courses.

2) In the Webbed Model, incorporate real educational scenarios, invite kindergarten teachers to participate in the teaching process, and provide more real-life case support.

3) Introduce personalized teaching strategies to address the diverse needs of students

e..Resource Expansion: Increase the diversity of interdisciplinary teaching resources to enhance students' creativity and innovation abilities

f. Teacher Training: Implement systematic training workshops for frontline teachers to enhance their understanding and application of the music integration teaching model. g. Strengthening Evaluation Mechanisms: Introduce tracking and feedback on students' career development after graduation as part of the evaluation, and continuously assess the long-term effects of the teaching model.

4.3.3 Expert Suggestions for Revisions

The main changes are reflected in the teaching objectives, teaching strategies, and teaching evaluation:

Personalized Teaching

Provide additional Shared Model tasks for students with weak foundations and help them establish course connections based on their needs.

Invite kindergarten teachers to participate in the Webbed Model, offering practical case support.

Interdisciplinary Resource Integration

Provide abundant teaching resources.

Realistic Contextual Learning

Integrate music with care courses through real-world cases and interdisciplinary thematic activities.

Teacher Participation in Training

Organize teacher training workshops to systematically explain the theory and practical methods of music integration in teaching.

Evaluation Standards

Strengthening the Evaluation Mechanism: Introduce tracking feedback on students' career development after graduation to continuously assess the long-term effects of the teaching model.



Figure 7

(1) Expert Suggestions for Modifying the Model Diagram:

Integrating Key Components of Fogarty's Teaching Model into the 5E3 Teaching Model:

It is recommended to incorporate the essential elements of the three stages of Fogarty's teaching model into the 5E3 framework to better illustrate the gradual progression from foundational concepts to themes, and finally to projects.

Explanation of the Revised Diagram:

On the right side of each of Fogarty's three models, corresponding applicable scopes and icons have been added.

Components of the teaching model have been expanded to include the detailed designs of the three modes:

Shared Model:

Added Scope: Concept

Icon Explanation:

Scope: Focuses on a single concept, suitable for initial interdisciplinary exploration.

Icon: A double-ring intersecting diagram symbolizes the integrative nature of "concepts."

Webbed Model:

Added Scope: Theme

Icon Explanation:

Scope: Centers on a specific theme, integrating multiple disciplines for exploration, suitable for intermediate-level interdisciplinary teaching.

Icon: A grid-like pattern symbolizes the diversity of "themes."

Integrated Model:

Added Scope: Project

Icon Explanation:

Scope: Focuses on complex projects that merge skills across disciplines, suitable for advanced-level integrative learning.

Icon: A project plan diagram represents the comprehensive nature of "projects."

Summary of Revised Visual Design:

The revised diagram visually combines the theoretical framework with practical teaching stratification, offering a clear pathway for teaching practices in music and early childhood care courses. The three teaching models (Shared Model, Webbed Model, Integrated Model) are presented in a progressively layered manner, reflecting the gradual deepening from foundational concepts to themes and ultimately to projects.

Presentation of the Revised Teaching Model Diagram:

The updated diagram provides an intuitive and structured visual representation of the layered design, supporting both theoretical understanding and practical implementation.

Expert Suggestions for Modifying the Model Diagram:

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Presentation of the Revised Teaching Model Diagram:

The updated diagram provides an intuitive and structured visual representation of the layered design, supporting both theoretical understanding and practical implementation.

(2) Revised Content Based on Expert Suggestions:

a.Theoretical Basis

Multiple Intelligences Theory (Gardner):

Highlights the integration of musical intelligence with interdisciplinary thinking, helping students understand the connection between music and early childhood care knowledge.

Fogarty's Curriculum Integration Model:

Provides three pathways—Shared Model, Webbed Model, and Integrated Model—to support the deep fusion of theory and practice.

BSCS 5E Teaching Model:

Facilitates active learning and course integration through the five phases: Engage, Explore, Explain, Elaborate, and Evaluate.

National Vocational School Art Curriculum Standards:

Guides course content to align with vocational themes, emphasizing the integration and practical application of music in professional courses.

b. Teaching Objectives

Knowledge Objectives:

Master foundational theories and skills in music courses, understanding their connection with core content in early childhood care.

Skill Objectives:

Enhance interdisciplinary thinking and course integration abilities.

Strengthen teamwork and problem-solving skills.

Develop the ability to independently design course plans based on early childhood developmental needs.

Emotional Objectives:

Cultivate artistic appreciation and educational passion.

Promote recognition of the value of integrating music with early childhood education.

c.Teaching Process

Phases of Learning:

Engage: Stimulate interest and introduce tasks.

Explore: Foster autonomous learning and comprehension of background

knowledge.

Explain: Develop solutions and organize key knowledge points.

Elaborate: Practice course integration and design comprehensive

teaching plans.

Stages of Integration:

Early Stage – Shared Model (Conceptual Cross-Exploration):

Goal: Guide students to link music courses with individual early childhood care courses to establish initial conceptual connections.

Example: Combine Singing Music and Children's Language and Expression to design rhythm-based language development activities.

Mid-Stage – Webbed Model (Thematic Integration to Solve Problems):

Goal: Focus on specific themes (e.g., emotional management in children) by integrating multiple content areas from music and early childhood care courses.

Example: Integrate Instrumental Music and Child Psychology to design team-building music activities.

Late Stage – Integrated Model (Advanced Project-Based Practice):

Goal: Design and implement comprehensive project plans that blend music and early childhood care courses.

Example: Collaboratively create a complete music-care teaching plan project for real-world application.

Evaluation (Evaluate):

Assess students' learning outcomes and activity implementation. Use feedback from evaluation phases to optimize the 5E teaching process, improving integration quality and application depth progressively.

d.Teaching Strategies

Principles of Integration:

Use music as the core, thematic activities as the carrier, and focus on contextual design and active student participation.

Methods of Integration:

Employ situational, thematic, and project-based approaches.

Promote integration through real-life cases, interdisciplinary activities, and comprehensive project designs.

Content Integration:

Link music courses (singing, instrumental music, dance, drama) with early childhood care courses (life, learning, play, and physical activities) to cultivate students' ability to integrate knowledge and solve practical problems.

Teaching Customization:

Provide more Shared Model tasks for students with weaker foundations to help them establish connections.

Involve kindergarten teachers in Webbed Model scenarios to provide practical case studies.

Interdisciplinary Resource Integration:

Offer diverse teaching resources, including online libraries.

Realistic Contextual Learning:

Combine music and care courses through real-life cases and interdisciplinary activities.

Teacher Training:

Conduct workshops to systematically explain the theoretical and practical methods of music-integrated teaching.

e.Evaluation Standards

Scoring System and Weighting:

Formative Assessment (30%): Focus on student engagement and improvement during learning.

Performance Assessment (40%): Emphasize music skills and their application in teaching practice.

Summative Assessment (30%): Evaluate interdisciplinary abilities and course integration outcomes.

Dual-Dimension Assessment:

Music Content Assessment: Evaluate music skills (e.g., singing, instrumental music, music drama) and theoretical mastery.

Integrated Curriculum Assessment: Assess teaching design, case analysis, and comprehensive practice abilities.

Long-term Evaluation Mechanism:

Add long-term tracking of graduates' career development data.

Provide feedback on the practical impact of music-integrated courses on students' professional growth.

f.Teaching Case Evaluation(Appendix4)

CHAPTER 5 DISCUSSION CONCLUSION

5.1Research Conclusions

The achievement of research objectives

This study focuses on the demand for high-quality early childhood education, with an emphasis on interdisciplinary curriculum integration and vocational education innovation. The following three objectives were achieved, and the corresponding results were summarized and evaluated through systematic research steps:

1. Analyzing the Current Teaching Model and Social Demand

The data collected through surveys and interviews indicate that the traditional teaching model is insufficient to meet the current demand for early childhood care professionals in vocational education and society. This study highlights the necessity of optimizing the teaching model.

2. Developing a Music-Integrated Teaching Model

The 5E3 teaching model developed in this study achieves a deep integration of music and early childhood care curricula. By using Fogarty's three models, it gradually enhances students' interdisciplinary abilities, providing a reference for teaching model innovation.

3. Verifying the Effectiveness of the Teaching Model

Expert evaluation results show that the 5E3 teaching model is highly scientific and practical. Although further refinement is needed in the design details, the overall research objectives have been achieved as expected.

This study, based on the theoretical framework of the 5E3 teaching model, combines course case designs and expert evaluations to explore the effectiveness and feasibility of this model in early childhood education. Through comprehensive evaluations and feedback from experts, the following conclusions have been drawn: 1.Strong Adaptability of the Teaching Model: The 5E3 teaching model integrates music education with early childhood education well, meeting the needs of various teaching scenarios. Expert feedback indicates that the model's interdisciplinary integration and innovation in early education have been affirmed. The integration of music in "Singing Music" with "Children's Language and Expression," as well as the combination of instrumental music and child psychology, demonstrates the potential of this model in early childhood education.

2.Clear Teaching Objectives: The objectives of this teaching model are closely aligned with the developmental needs of children, systematically cultivating students' teaching abilities through a clear modular structure. Experts generally recognize the model's effectiveness in fostering interdisciplinary thinking and practical skills, particularly in actual teaching design and activity implementation, where students can better understand and apply what they have learned.

3.Challenges and Opportunities of Interdisciplinary Integration: Although the model has achieved some success in interdisciplinary integration, some experts pointed out that the connections between subjects are sometimes loose. They suggest strengthening the deep integration of subject content to avoid simple piecemeal connections in the teaching process. Overall, the model provides a good framework for interdisciplinary education but needs to further enhance the depth and practicality of subject integration.

4.Preliminary Verification of Educational Effectiveness: Although this study did not conduct experimental verification, expert interviews and feedback have initially validated the model's effectiveness in educational practice. Experts generally believe that the model effectively enhances students' teaching design capabilities and has a positive impact on children's overall development (e.g., language expression, emotional cognition).

5.Innovative and Practical Teaching Strategies: The 5E3 teaching model employs strategies such as "Concept Cross-Exploration," "Thematic Problem-Solving Integration," and "Advanced Project Practice," which not only effectively promote collaboration and interaction between teachers and students but also provide teachers with more teaching strategies and tools. While experts recommend increasing the flexibility and operability of the model, overall, the model offers new ideas and methods for teaching innovation.

5.2 Discussion

During the implementation of the 5E3 teaching model, several key issues and areas for improvement were identified. These insights provide valuable guidance for further enhancing and promoting the model.

1.Specificity and Personalization of Teaching Objectives: While the teaching objectives of the 5E3 model are relatively clear, experts suggest that they should be further refined to better match the characteristics of different child groups. By designing more personalized and flexible teaching objectives, the model can better meet the different developmental needs of children in language, cognition, and emotions. Future research should explore how to design targeted teaching objectives for children at different ages and developmental levels to improve the universality and effectiveness of the teaching model.

2.Depth and Practicality of Interdisciplinary Integration: While the model has made initial progress in interdisciplinary integration, there is still the challenge of insufficient depth in integrating subject content. Experts believe that the connection between disciplines should be closer, not just a formal fusion, but a deeper integration of content. Future research should focus on how to better incorporate subject knowledge into each teaching segment and showcase its practical application through specific case studies.

3.Enhancing Interactivity and Engagement: The study found that although the 5E3 model emphasizes student participation and interactivity, some activities in actual teaching still fail to inspire students' enthusiasm and initiative. Expert feedback suggests that more challenging tasks, increased group collaboration, and student-led activities could enhance interactivity and participation. Future research should focus on designing more engaging and participatory teaching activities to stimulate students' learning interest and motivation.

4.Flexibility of Teaching Strategies: The flexibility of teaching strategies is a key issue raised in expert feedback. Experts recommend that teaching strategies and methods be adjusted according to the varying needs of children and changes in teaching environments. Future research should explore how to apply this model flexibly in different teaching contexts and provide teachers with more actionable teaching tools and resources.

5.Diversified Educational Assessment: Although this study obtained preliminary feedback through expert interviews, a comprehensive evaluation of educational effectiveness still needs to be strengthened. Experts suggest that in addition to expert evaluations, more methods such as field observations, student selfassessment, and peer evaluations should be incorporated to gain a more comprehensive understanding of the model's effectiveness in practice. Future research can employ diversified evaluation tools to comprehensively assess the implementation effect of the teaching model, enabling timely adjustments and optimization of teaching designs.

5.3Limitations of the Study and Future Directions

The research mainly focused on the scope of Chengdu, and the regional limitations of the sample affect the generalizability of the conclusions. The teaching model has not yet been validated in large-scale practice, with a small sample size and a lack of long-term follow-up data. Future research should focus on expanding the promotion and validation of the teaching model over a broader range, further testing its applicability, and strengthening the dynamic adjustment and optimization of the model, especially in addressing the personalized needs of different student groups. This can be done by incorporating more technological tools, such as digital teaching resources, as discussed above. This study has validated the scientific and practical value of the music-integrated early childhood care curriculum teaching model. In the future, through further optimization and promotion, this model has the potential to contribute to more

initiatives in vocational education curriculum reform and make a more socially relevant contribution to training high-quality early childhood care professionals.



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1.Action Plan for Improving the Quality of Vocational Education (2020-

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2. Announcement on the release of the standards for two courses, including art

and English, in secondary vocational schools - Government portal of the Ministry of Education of the People's Republic of China

3. The Ministry of Education's decision on the in-depth study and implementation of the "National Vocational EducationReform Implementation Plan". <u>The Ministry of</u> <u>Education's decision on the in-depth study and implementation of the "National Vocational EducationReform Implementation Plan".</u>

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5. Vocational school Advice on professional teaching standards http://www.moe.gov.cn/srcsite/A07/moe_953/201212/t20121217_146273.html





In order to conduct the Item-Objective Congruence (IOC) scoring and summary, experts will score each item based on the following criteria: +1: Agree, the item is highly consistent with the research objectives. 0: Uncertain, the expert has some doubts about the applicability or clarity of the item. -1: Disagree, the item is inconsistent with or unclear in relation to the research objectives. Below is the scoring table and summary based on expert ratings:



Category	Question Number	Question	Agree (+1)	Uncertain (0)	Disagree (-1)	Rating
A. Personal Information	A1	How many years of experience do you have in education and teaching?				
	A2	What is your current job title?				
	A3	What is your highest level of education?				
	A4	Are you a dual- qualified teacher? If yes, in addition to your teaching certification, what other skill certifications do you hold?				
B. Professional Development Needs of Early Childhood Care	61	After the transformation of the Preschool Education program into the Early Childhood Care program, are you aware of the current demands for further education or employment in the Early Childhood Care field?				
	B2	In your opinion, after the transformation of the Preschool Education program into the Early Childhood Care program, what aspects should teachers focus on to align with the current development of this transformation?				
	В3	Do you think the current teaching content arrangement meets the national requirements for cultivating the comprehensive skills of the Early Childhood Care profession?				

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C. Analysis of the Current Teaching Model	C1	What teaching model do you commonly use in the Early Childhood Care program?		
	C2	Do you think the current teaching model is conducive to the development of the Early Childhood Care profession?		
	C3	The Ministry of Education has issued the "Art Curriculum Standards for Vocational Schools," which emphasizes understanding the connection between music and other subjects, and strengthening the integration of art courses with professional courses. Do you think the current teaching model meets the requirements of the art curriculum standards?		
D. Open Discussion	D1	Discuss how music teachers should integrate early childhood care courses into music curriculum based on teaching goals, teaching strategies, teaching methods, and teaching evaluation.		

	84	Do the teaching activities in the current Early Childhood Care program design have interactivity and participation?	+1	+1	+1	+1.00	Completely consistent
	Β5	Are the assessment and evaluation methods of the current Early Childhood Care program reasonable?	+1	+1	0	+0.80	High consistency, with a few uncertainties
C. Professional Development Needs	C1	Do you have a thorough understanding of the professional development needs of the Early Childhood Care program?	+1	+1	+1	+1.00	Completely consistent
	C2	Do you have a clear plan for your personal career development?	+1	+1	+1	+1.00	Completely consistent
	C3	Does the current teaching model of the Early Childhood Care program meet your career development needs?	+1	0	+1	+0.80	High consistency, with a few uncertainties
	C4	What do you think are the key factors for enhancing personal career	+1	+1	+1	+1.00	Completely consistent

	C5	What is your desired direction for personal career development?	+1	+1	+1	+1.00	Completely consistent
D. Perception and Attitudes Toward the Integrated Teaching Model Based on Music Courses	D1	Do you think music plays an important role in early childhood care?	+1	+1	+1	+1.00	Completely consistent
	D2	Do you think the integration of musical elements with early childhood care-related knowledge can help enhance your interest in learning?	+1	+1	+1	+1.00	Completely consistent
	D3	Do you think the integration of music courses with early childhood care courses helps stimulate your creativity?	+1	+1	+1	+1.00	Completely consistent
	D4	Does integrating early childhood care courses into the music curriculum help you connect different professional courses?	+1	0	+1	+0.80	High consistency, with a few uncertainties
	D5	Do you think the integration of music courses with early childhood care courses can provide diversity for career development?	+1	+1	+1	+1.00	Completely consistent
	D6	Would you be willing to participate in joint projects between music courses and other early childhood care courses?	+1	+1	+1	+1.00	Completely consistent

summary: The majority of questions (13 out of 14) received a score of +1, indicating complete alignment with the research objectives. Questions B1, B2, B3, and C3 received scores of +0.80, reflecting some uncertainty among experts in these areas. This suggests that further clarification may be needed to reduce any ambiguity. Overall, the items in the questionnaire are highly consistent with the research objectives, with only a few areas requiring minor adjustments to improve clarity and ensure full alignment.

Revised Teacher In-depth Interview Outline

Interview on the Current Status and Needs of the Teaching Model for the Early Childhood Care Program (Teachers)

(Semi-structured In-depth Personal Interview)

Dear Teacher,

Greetings! With the issuance of the *Vocational Education Professional Catalog* (2021) [Document No. 2, Ministry of Education (2021)] by the Ministry of Education, the preschool education program in vocational schools has been officially discontinued and replaced by the Early Childhood Care program as the sole education-related program. This marks the beginning of a transitional period for the Early Childhood Care program in vocational schools.

To ensure that the teaching model of the transformed Early Childhood Care program better aligns with students' learning needs and provides high-quality training in the field, we have designed this interview to explore the current status and needs of the program's teaching model from the perspective of teachers.

The interview will cover three dimensions: collection of basic personal information, teacher-specific questions, and open discussion to understand your views on the current teaching model and its needs.

We sincerely invite you to share your genuine thoughts and experiences during this interview. All responses will be used solely for the purpose of improving teaching practices. Your personal information and opinions will be kept strictly confidential, and we assure you that no personal data will be disclosed. Thank you very much for your participation and support!

Survey Title

Part 1: Collection of Basic Personal Information

How many years of experience do you have in education and teaching?

What is your current job title?

What is your highest level of education?

Are you a dual-qualified teacher? If yes, in addition to your teaching certification, what other skill certifications do you hold?

Part 2: Teacher-specific Questions

1. On the professional development needs of the Early Childhood Care program:

After the transition from the Preschool Education program to the Early Childhood Care program, are you aware of the current professional development demands in this field?

In your opinion, what areas should teachers focus on to align with the transition from Preschool Education to Early Childhood Care? (e.g., adjustments to teaching content, optimization of teaching methods, practical teaching arrangements).

Do you think the current teaching content arrangement meets the national requirements for cultivating comprehensive skills in the Early Childhood Care profession?

2. On the current status of the teaching model for the Early Childhood Care program:

Do you think the current teaching model is conducive to the development of the Early Childhood Care program? If yes, please explain why. If not, please suggest improvements.

The Ministry of Education's *Art Curriculum Standards for Vocational Schools* emphasizes understanding the connection between music and other subjects and strengthening the integration of art courses with professional courses. Do you think the

current teaching model aligns with these standards? If not, please identify specific shortcomings and suggest directions for improvement.

Are you willing to explore ways to connect music courses with Early Childhood Care courses?

Part 3: Open Discussion

Discuss how music teachers could integrate Early Childhood Care courses into music curricula in terms of teaching goals, strategies, methods, and evaluations.





In order to conduct the Item-Objective Congruence (IOC) scoring and summary, experts will score each item based on the following criteria: +1: Agree, the item is highly consistent with the research objectives. 0: Uncertain, the expert has some doubts about the applicability or clarity of the item. -1: Disagree, the item is inconsistent with or unclear in relation to the research objectives. Below is the scoring table and summary based on expert ratings:

(IOC) Item-Objective Congruence

Category	Question Number	Question	Agree (+1)	Uncertain (0)	Disagree (-1)	Rating
A. Personal Information	A1	What is your gender?				
	A2	What grade are you currently in?				
	Α3	Have you participated in practical teaching or internships in the Early Childhood Care program?				
B. Professional Development Needs of Early Childhood Care	B1	You have a clear understanding of the learning objectives of the Early Childhood Care program.				
	B2	The teaching model of the Early Childhood Care program can fully stimulate my interest in learning.				
	В3	The current teaching methods of the Early Childhood Care program help me establish effective learning strategies.				
	Β4	The design of teaching activities in the current Early Childhood Care program is interactive and participatory.				
	В5	The assessment and evaluation methods of the current Early Childhood Care program are reasonable.				

Current Teaching Model and Professional Development Needs (Teacher In-depth Interview Outline)

C. Professional Development Needs	C1	You have a thorough understanding of the professional development needs of the Early Childhood Care program.		
	C2	You have a clear plan for your personal career development.		
	C3	The current teaching model of the Early Childhood Care program meets your career development needs.		
	C4	What do you think are the key factors for enhancing personal career development? (Open-ended question)		
	C5	What is your desired direction for personal career development? (Open-ended question)		
D. Cognition and Attitudes Towards the Integrated Teaching Model Based on the Music Curriculum	D1	Do you think music plays an important role in early childhood care?		
	D2	The integration of musical elements with early childhood care- related knowledge can help enhance your interest in learning.		
	D3	The integration of music courses with early childhood care courses helps stimulate your creative thinking.		

	D4	Incorporating early childhood care courses into the music curriculum helps you integrate the connections between different professional courses.		
	D5	The integration of music courses with early childhood care courses can provide diversity for career development.		
	D6	Are you willing to participate in joint projects between music courses and other early childhood care courses?		
Open-ended Question		Your specific needs and suggestions for the integrated teaching model of music courses and early childhood care courses. (Open-ended question)		

Category	Question ID	Question	Expert 1	Expert 2	Expert 3	Average Score	Conclusion
A. Personal Information	A1	How many years of experience do you have in education and teaching work?	+1	+1	+1	+1.00	Fully Consistent
	A2	What is your current job title?	+1	+1	+1	+1.00	Fully Consistent
	A3	What is your highest level of education?	+1	+1	+1	+1.00	Fully Consistent
	A4	Are you a dual-qualified teacher? If "yes," what skill certificates do you hold besides a teaching qualification?	+1	+1	+1	+1.00	Fully Consistent
B. Professional Development Needs in Early Childhood Care	Β1	After transitioning from preschool education to early childhood care, do you understand the current demands for advancement or employment in this field?	+1	0	+1	+0.80	High Consistency, Minor Uncertainty
	B2	After the transition, what areas should teachers focus on to align with the development needs of early childhood care?	+1	+1	0	+0.80	High Consistency, Minor Uncertainty
	B3	Does the current curriculum meet national requirements for cultivating comprehensive competencies in early childhood care?	+1	0	+1	+0.80	High Consistency, Minor Uncertainty
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C. Current Teaching Model Analysis	C1	What teaching models do you commonly use in early childhood care teaching?	+1	+1	+1	+1.00	Fully Consistent
	C2	Do you think the current teaching models contribute to the development of early childhood care?	+1	+1	+1	+1.00	Fully Consistent
	C3	The Ministry of Education's Vocational School Arts Curriculum Standards emphasizes understanding the connection between music and other disciplines and integrating arts courses with professional courses. Do you think the current teaching models align with these standards?	+1	0	+1	+0.80	High Consistency, Minor Uncertainty
D. Open Discussion	D1	Discuss how music teachers can integrate early childhood care curricula through teaching goals, strategies, methods, and evaluations.	+1	+1	+1	+1.00	Fully Consistent

Summary of Results:

Completely Consistent: The majority of questions (16 out of 18) received an average score of +1.00, indicating they are completely consistent with the research objectives.

High Consistency, with a Few Uncertainties: For questions B2, B5, C3, and D4, the average scores were slightly lower (+0.80), reflecting some uncertainties from one or two experts, but the overall consistency remains high.

These results suggest that the items in the questionnaire are generally wellaligned with the research objectives, with only minor uncertainties in specific areas.

Improvement Suggestions: For questions B2, B5, C3, and D4, it is recommended to further clarify the concepts in the questions or add explanatory text to reduce subjective uncertainties among experts. These questions can be optimized through more in-depth research or by incorporating student feedback to better align with actual needs.

Conclusion: Overall, the questionnaire is well-designed, with high alignment with the research objectives, and can serve as an effective research tool. For the few uncertain items, it is suggested to conduct detailed observation and feedback in actual research to further optimize the question design.

Based on expert ratings and improvement suggestions, the following changes have been made to the questionnaire content. The main modifications are focused on questions B2, B5, C3, and D4 to reduce uncertainty in expert ratings and ensure the items are more closely aligned with the research objectives.

Revised Survey Content

Survey on the Current Teaching Model and Needs of the Early Childhood Care Program (For Current Students)

Dear Student, Hello! With the Ministry of Education's release of new vocational school program directories, the Early Childhood Care program is currently undergoing a transformation. To ensure that the teaching model meets your learning needs and career development goals, we have designed this survey. The survey covers four dimensions: personal basic information, current teaching model, professional development needs, and perceptions and attitudes toward the integration of music courses. Your honest feedback will provide important insights for teaching improvements. All data will be used for research purposes only, and your personal information will be kept confidential.

Section 1: Personal Information

Please mark " \checkmark " on the option that best fits your situation.

What is your gender?

A. Male

B. Female

What grade are you currently in?

A. Freshman

B. Sophomore

C. Junior

D. Graduate

Have you participated in practical teaching or internships in the Early Childhood Care program

A. Yes

B. No

Section 2: Current Teaching Model

Please mark " \checkmark " on the option that best fits your situation.

You have a clear understanding of the learning objectives of the Early Childhood Care program.

A. Strongly agree

B. Agree

C. Neutral

D. Disagree

E. Strongly disagree

The teaching model of the Early Childhood Care program fully stimulates my

interest in learning.

A. Strongly agree

B. Agree

C. Neutral

D. Disagree

E. Strongly disagree

The current teaching methods of the Early Childhood Care program help me establish effective learning strategies.

A. Strongly agree

B. Agree

C. Neutral

D. Disagree

E. Strongly disagree

The teaching activities in the current Early Childhood Care program are interactive and participatory

A. Strongly agree

- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly disagree

The assessment and evaluation methods in the current Early Childhood Care

program are reasonable.

A. Strongly agree

- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly disagree

Section 3: Professional Development Needs

Please mark " $\sqrt{}$ " on the option that best fits your situation.

You have a thorough understanding of the professional development needs of

the Early Childhood Care program.

- A. Strongly agree
- B. Agree
- C. Neutral

- D. Disagree
- E. Strongly disagree

You have a clear plan for your personal career development.

- A. Strongly agree
- B. Agree
- C. Neutral
- D. Disagre
- E. Strongly disagree

The current teaching model of the Early Childhood Care program meets your career development needs.

- A. Strongly agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly disagree

What do you think are the key factors for enhancing personal career development?

A. Focus on academic advancement or industry trend

- B. Accumulating practical experience
- C. Improving professional skills
- D. Enhancing overall competencies
- E. Other (please specify): _____

What is your desired direction for personal career development?

- A. Kindergarten caregiver
- B. Infant care specialist
- C. Family education advisor
- D. Arts teache
- E. Other (please specify): _____

Section 4: Perceptions and Attitudes Toward the Integrated Teaching Model Based on Music Courses

Please mark " $\sqrt{}$ " on the option that best fits your situation.

Do you think music plays an important role in early childhood care?

- A. Strongly agree
- B. Agree
- C. Neutra
- D. Disagree
- E. Strongly disagree

Do you think the integration of musical elements with early childhood carerelated knowledge can help enhance your interest in learning

- A. Strongly agree
- B. Agre
- C. Neutral
- D. Disagree
- E. Strongly disagree

Do you think the integration of music courses with early childhood care courses

helps stimulate your creativity

A. Strongly agree

- B. Agree
- C. Neutra
- D. Disagree
- E. Strongly disagree
- 4. Does integrating early childhood care courses into the music curriculum help

you connect different professional courses?

- A. Strongly agree
- B. Agree
- C. Neutra
- D. Disagree

E. Strongly disagree

5. Do you think the integration of music courses with early childhood care courses can provide diversity for career development?

A. Strongly agree

- B. Agree
- C. Neutra
- D. Disagree
- E. Strongly disagree

6. Would you be willing to participate in joint projects between music courses and other early childhood care courses?

- A. Strongly agree
- B. Agree
- C. Neutra
- D. Disagree
- E. Strongly disagree
- **Open-Ended Question (Optional)**

What are your specific needs and suggestions for the integrated teaching model of music courses and early childhood care courses?

Current Status and Needs of the Teaching Model in the Early Childhood Care Program (Teacher Interview)

(Individual In-depth Interview)

Dear Colleague,

Greetings! Following the Ministry of Education's issuance of the Vocational Education Professional Catalogue (2021) (Document No. 2, 2021), the Early Childhood Education program at vocational schools has been removed, with the Early Childhood Care program becoming the sole category under education. This transition marks a new phase for vocational school education. To ensure that the teaching model in the Early Childhood Care program aligns better with students' learning needs and meets the requirements for high-quality training, we are conducting this interview.

The interview will focus on four dimensions:

Personal Information Collection

Professional Development Needs in the Early Childhood Care Program

Current Teaching Model in the Program

Open-ended Discussion about Teaching Model Status and Needs

We sincerely invite you to share your genuine experiences and perspectives.

The results will solely serve the purpose of educational improvement. Your personal information and feedback will be kept confidential and will not be disclosed.

Thank you for your participation and support!

Survey Title: Current Status and Needs of the Teaching Model in the Early Childhood Care Program

Part One: Personal Information Collection

How many years of teaching experience do you have?

T1: 11 years

T2: 13 years

T3: 15 years

T4: 8 years

T5: 6 years

T6: 9 years

T7: 8 years

T8: 11 years

T9: 15 years

T10: 18 years

T11: 17 years

T12: 8 years

What is your current teaching title or role?

T1: Music Teacher

T2: Head of the Music Teaching Department

T3: Early Childhood Activities and Care Teacher

T4: Early Childhood Care Teacher

T5: Child Psychology Teacher

T6: Music Teacher

T7: Child Hygiene Teacher

T8: Music Teacher

T9: Early Childhood Literature and Reading Teacher

T10: Deputy Director of Academic Affairs

T11: Teacher of Child Behavior Observation and Guidance

T12: Music Teacher

What is your highest educational qualification?

(All responses match those in Question 2)

Are you a dual-qualified teacher?

(All teachers answered "Yes")

Apart from the teaching certificate, what other skill certifications do you hold?

T1: Infant Caregiver Certificate

T2: Psychological Counselor Certificate

T3: Psychological Counselor Certificate

T4: Infant Caregiver Certificate

T5: Childcare Worker Certificate

T6: Etiquette Trainer Certificate

T7: Infant Caregiver Certificate

T8: Infant Caregiver Certificate

T9: Childcare Worker Certificate

T10: Childcare Worker Certificate

T11: Infant Caregiver Certificate

T12: Infant Caregiver Certificate

Part Two: Professional Development Needs in Early Childhood Care Programs

1. Are you aware of the current professional development needs for the Early Childhood Care program after its transformation from the Early Childhood Education program?

T1: I am somewhat unclear about the professional development needs for the current Early Childhood Care program. Previously, the focus was on Early Childhood Education, and I was familiar with the talent cultivation system for that. However, I am not yet clear about the specific requirements for training Early Childhood Care professionals.

T2: I believe the primary goals for the Early Childhood Care program are further education and employment. However, the demand in this market is currently limited. The number of kindergartens is decreasing, and parents' expectations are becoming higher, creating increased demand in areas such as academic qualifications and vocational skills.

T3: I think the role of Early Childhood Care has shifted from the traditional "caretaker" role to more specialized and systematic professional requirements.

T4: As parents' involvement in early childhood education deepens, the professional development of caregivers increasingly demands close collaboration with parents. Caregivers must act as guides in home-school interaction by helping parents understand child development and address parenting challenges, which is an essential direction for career development.

T5: The role of Early Childhood Care providers has expanded from merely "looking after" children to integrating professional education and care functions.

T6: The current professional requirements for caregivers involve not only child care but also fostering creativity, motor skills, and teamwork through games and activities. Therefore, caregivers need to have certain educational design capabilities.

T7: Modern society places increasing emphasis on Early Childhood Care. Parents focus more on children's comprehensive abilities, such as creativity, language, social skills, and development in arts and sports. T8: The demand for Early Childhood Care has evolved from traditional "caregiving" to more compelling professional roles. With the increasing attention to early childhood education, the responsibilities now encompass early care and education, psychological support, and social skills development. Caregivers are no longer mere caretakers but educators and guides in child development. Professionals are expected to possess caregiving skills alongside educational, psychological counseling, and communication abilities.

T9: The professional development of Early Childhood Care increasingly emphasizes the integration of home-school collaboration and comprehensive child development. Professionals must have basic childcare skills, enhance their communication abilities with parents, and offer scientific parenting guidance.

T10: National regulations for Early Childhood Education and Care are becoming stricter, with laws and industry standards being refined. Professionals need to have a solid understanding of legal regulations and adhere to safety, hygiene, and educational standards in their work.

T11: The development needs for Early Childhood Care professionals show an interdisciplinary and multidimensional trend. It involves enhancing vocational skills and adapting to the growing complexity of the modern childcare industry.

T12: The shift reflects the evolving role of professionals, emphasizing comprehensive abilities like caregiving, psychological support, family education guidance, and the application of new technologies.

2. How should teachers adapt to meet the demands of this transition?

T1: Curriculum content needs to align with different talent cultivation goals. I believe teachers should continue learning about Early Childhood Care to address professional needs better.

T2: Adapting the teaching content, methods, and models to meet market requirements is essential.

T3: Professionals need to master diverse fields, such as child psychology, nutrition, emergency care, and artistic and social development. Teachers should guide students to integrate these fields into caregiving practices.

T4: Teachers need to focus on communication skills, psychological support, and family education knowledge to meet the demands of modern childcare.

T5: Beyond basic childcare, teachers must emphasize education aspects such as language development, emotional management, and behavior guidance.

T6: Updating educational philosophies and integrating "care" and "education" seamlessly is vital.

T7: Teachers should design activities that nurture children's development across multiple domains.

T8: Strengthening practical training through simulated scenarios, case analyses, and internships is key.

T9: Teachers must help students master interdisciplinary knowledge from psychology, medicine, and sociology for practical application in childcare.

T10: Information technology literacy should be incorporated to improve efficiency and quality in childcare practices.

T11: Role-playing and case discussions can equip students with skills in family education guidance and communication.

T12: Teachers must incorporate legal awareness and child protection laws into training, emphasizing adherence to relevant standards.

3. Does the current curriculum meet national standards for cultivating comprehensive Early Childhood Care skills?

T1: The curriculum generally meets the standards but focuses too heavily on theory and lacks cross-disciplinary integration and practical elements. Adding more practice-oriented and integrated courses would align better with modern educational requirements. T2: While it addresses child development and mental health, the curriculum lacks depth in areas like emotional education and behavioral management. Expanding practical psychology applications is recommended.

T3: The emphasis on theory over practical training is noticeable. More internships and simulated exercises are needed to build students' problem-solving skills.

T4: Practical elements need reinforcement to ensure students can handle realworld challenges effectively.

T5: The curriculum should include modern educational concepts and family collaboration techniques to prepare students for the complexities of childcare.

T6: The courses lack integration between disciplines, limiting students' ability to develop cohesive skills.

T7: Greater emphasis on interdisciplinary approaches is needed to prepare students for multifaceted workplace challenges.

T8: Adding more hands-on training, such as simulations and role-playing, will bridge the gap between theory and practice.

T9: Incorporating STEAM education principles into the curriculum can address evolving educational demands.

T10: The curriculum needs to prioritize the practical application of theoretical knowledge to address real-world challenges effectively.

T11: Addressing parent demands and cultural diversity training can make the curriculum more comprehensive.

T12: Global perspectives and multicultural education are essential for developing versatile Early Childhood Care professionals.

Part Three: Interview on the Current Teaching Models in Early Childhood Care Programs

1. What are the common teaching models you currently use in the early childhood care program?

T1: "I mainly use a combination of traditional lecture-based teaching and interactive teaching methods. In class, I first deliver foundational theories and knowledge to help students establish a basic understanding of early childhood care. Then, through group discussions and interactive activities, I guide students to pose questions and think critically. This approach ensures students grasp basic knowledge while stimulating their thinking and enhancing class participation and interaction."

T2: "I often use case-based teaching, especially when discussing child behavior management and home-school collaboration. I select real or typical cases, allowing students to analyze the problems, propose solutions, and discuss different coping strategies. This method helps students integrate theory with practice, improving their ability to address real-world challenges."

T3: "I enjoy using simulation teaching in my classes. I create simulated early childhood care scenarios, such as parent-teacher meetings or kindergarten event planning, where students role-play and solve problems in a 'realistic' setting. This method equips students to handle complex situations more confidently in real work settings and enhances their adaptability and communication skills."

T4: "I emphasize experiential teaching, particularly when teaching care skills. I combine demonstrations with hands-on student practice. For example, when teaching how to address children's emotional issues, I use role-playing to simulate caregiver-child interactions. This approach enhances students' perceptual understanding, practical skills, and responsiveness."

T5: "I often adopt task-driven teaching. During learning, I assign real-world tasks such as designing simple kindergarten activity plans or drafting children's health management schemes. Through these tasks, students apply theoretical knowledge in practice, enhancing their skills. Tasks also spark students' interest and innovative thinking."

T6: "Flipped classroom is a teaching model I frequently use. Before class, students study relevant theories through online courses or reading materials. In class, we consolidate learning through interactive discussions, problem-solving, and group

work. This approach shifts students into the role of active learners, encouraging them to think and engage more proactively."

T7: "I prefer cooperative learning, where students work in groups to complete projects and tasks, such as analyzing cases, gathering information, or designing activity plans. This method fosters mutual support, knowledge sharing, and teamwork skills, making it especially effective for developing students' comprehensive abilities."

T8: "I encourage reflective learning. At the end of each class, I ask students to write down their takeaways and thoughts, sharing them in the next session. Reflection not only helps consolidate knowledge but also prompts students to evaluate their learning methods, improving efficiency and depth."

T9: "I extensively use multimedia tools such as videos, animations, and interactive platforms. These resources help students better understand complex theories and concepts. For instance, when explaining children's psychological development, I play relevant videos to illustrate behavioral patterns in abused children, enhancing students' perceptual understanding."

T10: "I frequently combine lectures with group discussions. In class, I first deliver core theories and knowledge, then organize group discussions and case studies to encourage students to apply the knowledge practically. This phase stimulates critical thinking, deepens understanding, and fosters teamwork."

T11: "To me, early childhood care is not just about skills but also about fostering emotional and social abilities. I use a mix of emotional education and experiential learning, enabling students to experience emotional interactions during practical tasks. For example, I create caregiver-child interaction scenarios, helping students understand how to build emotional connections with children."

T12: "I believe that early childhood care students need both theoretical knowledge and practical experience. My teaching model integrates classroom learning with internships. After acquiring theoretical knowledge, students participate in practical activities such as kindergarten internships or parent-child events, applying what they've learned to real-world situations to enhance their job readiness."

2. Do you think the current teaching models align with the standards of the Ministry of Education's Vocational School Arts Curriculum Standards, which emphasize integrating music with other disciplines and aligning arts with professional courses?

T1: "To some extent, the current teaching model meets the standards, especially in integrating music, dance, and early childhood education. I incorporate artistic elements into daily care courses but believe we could strengthen the connection between music and other disciplines. For example, using musical elements to help students understand child psychology and language development."

T2: "Our teaching models mostly comply with the standards, particularly in combining arts courses like music and visual arts with early childhood education. I teach students to use arts to help children express emotions and develop creativity. However, practical integration is insufficient, requiring more hands-on stages."

T3: "While some overlap exists between arts and professional courses, gaps remain in integration. I think music and early childhood language learning should be more closely connected. We should adopt more interdisciplinary teaching approaches to help students understand and use arts knowledge from various perspectives."

(Responses continue with similar reflections, focusing on the potential for deeper integration of arts and professional courses, emphasizing practical application, and suggesting interdisciplinary innovations to meet curriculum standards.)

3. Are you willing to connect music courses with early childhood care professional courses?

All respondents expressed their willingness.

Part Four: Open Discussion

Participants discussed how music educators could align music curriculum with early childhood care professional courses by focusing on:

Teaching Objectives: Designing objectives that combine musical skills with the goals of early childhood education, such as emotional regulation and cognitive development.

Teaching Strategies: Employing cross-disciplinary strategies like integrating music into storytelling, play, and social-emotional learning activities.

Teaching Methods: Using interactive methods like role-playing, scenario simulations, and task-based learning that merge music education with practical childcare tasks.

Assessment Methods: Developing evaluation frameworks that assess both musical and professional competencies, such as creativity, teamwork, and application of music in real-world childcare scenarios.



Appendix 3

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PNImodified formula table:

Needs	Importance (W)	Current Status (D)	Priority (P)	Cost (C)	PNImodified	Rank				
Teaching model inspires learning interest	4.2	3.5	1.2	0.5	0.1787	5				
Course design is interactive and engaging	4.5	3.8	1.1	0.4	0.1571	7				
Assessment method is reasonable	4.0	3.6	1.0	0.6	0.0870	8				
Teaching model aligns with career needs	4.3	3.7	1.3	0.5	0.1625	6				
Music courses enhance learning interest	4.6	3.9	1.4	0.5	0.1922	2				
Music integration sparks innovation	4.4	3.6	1.2	0.6	0.1920	3				
Music integration improves course linkage	4.5	3.8	1.3	0.5	0.1820	4				
Music courses provide career diversity	4.7	3.7	1.4	0.6	0.2642	1				



Unit Module Name: How to integrate music into subjects: Music Activities (Units 1-4)

Singing Appreciation and Singing Practice Modul

(16 lessons, 4 lessons per unit)

Teaching Objectives:

Music:

1.Listen to, sing, or perform music themes to understand the elements of music.

2.Feel the stylistic features of the works, express feelings about music, or evaluate the music.

3.Understand the cultural connotation of music by connecting it with historical, cultural, and social backgrounds.

Integrated Curriculum:

1. Understand the connections between music and early childhood activities.

2.Guide students to build interdisciplinary thematic knowledge integrating music with early childhood activities.

3. Guide students to solve issues related to early childhood care.

Early Childhood Activities

Early Childhood Care Knowledge (4 lessons)

(Literature collection and establishing connections)

Craig H. Hart and others believe that the most obvious way to integrate music into the curriculum is through singing. The lyrics in songs can reinforce almost any theme (Craig H. Hart, 1997).

The "Curriculum Standards for Arts Education in Secondary Vocational Schools" advocates that arts education should permeate the daily life of children. The early childhood care curriculum mainly includes activities like entering kindergarten, drinking, sleeping, washing, eating, and leaving school as outlined in the "Early Childhood Care Textbooks."

"First Day of Kindergarten" Theme Activity:

Following the principles of curriculum integration—music as the main subject, interdisciplinary principles, active student participation, situational teaching, and cooperation—using the 5E teaching model:

1.Engage: Experience different emotions evoked by music through appreciation.

2.Explor: Explore why different music expresses different emotions.

3.Explain: Discuss how songs convey emotions.

4.Elaboratie: (Using Fogarty's Shared Model) Integrate "singing" in music with the life activities in early childhood care textbooks.

Create a vocational scenario: Integrate music into the "First Day of Kindergarten" theme. Lively music encourages children to joyfully enter kindergarten. Discuss music's role in the care activities like entering school, eating, and sleeping.

1. Evaluate: Use self-assessment, group peer review, and teacher evaluation to adjust content.

Homework: Consider and connect other activity content related to early childhood activities and accumulate experience for future professional scenarios.

Singing (Singing Appreciation)

Teacher:

Use singing appreciation to guide students in understanding different emotions through music.

Encourage students to explore the emotional directions conveyed by different types of music.

Guide the "First Day of Kindergarten" project activity, organizing students to explore the role of music in early childhood care.

Facilitate student collaboration to discuss the role of music in various aspects of child care, sharing the significance of music and music appreciation.

Guide students to adjust their content through self-assessment and group peer review.

Students:

Feel: Listen to music and feel the different emotions it evokes.

Brainstorm: Explore why different music expresses different emotions.

Group Research: Investigate how songs convey emotions and content.

In the "Kindergarten Care" case project, students explore music suitable for activities and link it closely with early childhood activities.

Project Presentation: Adjust content through self-assessment, peer review, and teacher evaluation to accumulate experience for professional scenarios.

Unit Module Name: Singing Appreciation and Singing Practice Module

(16 lessons, 4 lessons per unit)

Teaching Objectives:

Music:

Listen to, sing, or perform music themes to understand the elements of music.

Feel the stylistic features of the works, express feelings about music, or evaluate the music.

Understand the cultural connotation of music by connecting it with historical, cultural, and social backgrounds.

Integrated Curriculum:

Integrate singing with early childhood life activity units to connect music with early childhood education.

Integrate music into child care through collaborative inquiry, allowing students to build knowledge.

Develop the ability to solve issues related to early childhood care.

Early Childhood Life Activity Unit

Child Care (4 lessons)

Research indicates that by 10 months, infants can perceive the internal structure and semantics of music. The "0-3 Year Old Infant Development Indicators" emphasizes cultivating the ability to listen to music and follow its rhythm with actions like

clapping, nodding, or rubbing hands. This highlights the necessity and importance of music education in early childhood care. Infants develop strong expressive desires and impressions of music during this stage.

"Sleep Care" Theme Activity:

Engage: Listen to songs and focus on the expression of lyrics.

Explore: Investigate the structure of the lyrics and the musical form.

Explain: Discuss how to create lyrics to express your ideas.

Elaborate: Apply knowledge to early childhood care by creating lyrics to convey instructions for activities like handwashing, sleeping, and dressing.

Evaluate: Adjust content through self-assessment, group peer review, and teacher evaluation.

Homework: Reflect on other activities related to early childhood care and accumulate experience for future professional scenarios.

Singing (Music Lyric Creation)

Teacher:

Organize students to listen to songs and focus on the lyrics.

Guide students to explore how lyrics help in understanding music.

Teach students how to create lyrics to express ideas.

Use the "instructional music" theme to guide students in writing lyrics related to handwashing, sleeping, and dressing in early childhood care contexts.

Facilitate evaluations to help students adjust and refine their content.

Students:

Engage: Listen to songs and focus on the lyrics.

Explore: Investigate the relationship between lyrics and song structure.

Explain: Brainstorm how to create lyrics to convey ideas.

Elaborate: Work in projects to create instructional music related to early childhood care.

Evaluate: Adjust content based on self-assessment, peer review, and teacher feedback.

Units 5-6: Appreciation and Practice of Chinese and Foreign Instrumental Music (8 lessons)

Teaching Objectives:

Music:

- Familiarize students with the tonal characteristics of common Chinese and foreign instruments.
- 2. Analyze the structure of musical pieces, experience the emotions in the music, and imagine the musical imagery.
- 3. Appreciate the unique charm of traditional Chinese instruments, enhancing cultural confidence.

Integrated Curriculum:

- Integrate instrumental music with early childhood life activity curriculum, establishing a connection between music and early learning activities for child care.
- Incorporate musical content into the children's play activity curriculum, allowing students to construct knowledge through collaborative project-based exploration.
- 3. Equip students with the ability to address issues related to children's play and child care activities.

Early Childhood Teaching Activity DesignThe "Guidelines for Kindergarten Education (Trial)" states that "play is the basic activity in kindergartens."

"Curriculum Gamification" is a key element in kindergarten curriculum reform, also promoting the "3-6 Years Old Children's Learning and Development Guide" (Pang, 2020). "Orff Orchestra" Themed Activity:

1. Engage:

Introduce the concept of symphonic music by playing a short piece of orchestral music.

Ask students: "What do you think the role of the conductor is in a symphony orchestra?"

2. Explore:

Allow students to listen to the symphonic piece and observe the conductor's cues.

Have students explore why a conductor is needed in an orchestra and what their role is.

3. Explain:

Guide students to understand the conductor's role in controlling dynamics and emotions of the music.

Explain how a conductor coordinates the different sections of an orchestra to achieve emotional unity.

4. Elaborate:

Encourage students to transfer the concept of the conductor's coordination and control to early childhood education. Discuss how teachers manage classroom activities.

Use project-based work to explore how students can design early childhood education activities, using the principles of coordination and emotional engagement seen in orchestral conducting.

5. Evaluate:

Students will self-assess, peer-assess, and receive teacher feedback on their project outcomes, making adjustments to their designs based on the evaluations.

Homework: Think about and connect with other activities related to the children's play activities section, accumulating experience for professional scenarios.

Teachers' Role:

1. Engage:

Present a symphonic piece and introduce the conductor's role in guiding the orchestra.

Pose questions to spark curiosity about the function and importance of the conductor.

2. Explore:

Guide students to actively listen to the symphony and observe the conductor's actions.

Lead discussions on the role of the conductor and how they manage the different sections of the orchestra.

3. Explain:

Provide an explanation of how the conductor coordinates the orchestra's tempo, dynamics, and emotional expression.

Explain how these principles can be applied in early childhood education settings to manage classroom dynamics and guide student engagement.

4. Elaborate:

Create activities that allow students to explore how these concepts of coordination, emotional expression, and leadership are essential in the design of early childhood activities.

Use project-based methods to help students create activities for young children that align with the orchestral principles they have learned.

5. Evaluate:

Use self-assessment, peer evaluations, and teacher feedback to assess the effectiveness of the students' activity designs and their understanding of the conductor's role.

Adjust the design and content based on evaluation results to improve learning outcomes.

Students' Role:

1. Engage:

Listen to a symphonic piece, engaging with the music and thinking about the conductor's role in the performance.

Respond to questions posed by the teacher about the conductor's function in the orchestra.

2. Explore:

Participate in group activities to explore the conductor's influence on the music.

Research and discuss how the conductor manages the orchestra and what that might look like in early childhood education.

3. Explain:

Share their understanding of the conductor's role with peers, explaining how they control dynamics and emotions in music.

Discuss how these concepts can be applied to managing a classroom or planning activities for children.

4. Elaborate:

instruments or sound-making tools.

Collaborate on a project to design a classroom activity that incorporates the principles of orchestral conducting.

5. Evaluate:

Self-assess their understanding of the conductor's role and the integration of these principles in early childhood education activities.

Provide peer feedback on their project designs and adjust the content based on the evaluations.

Homework:

Think about and connect with other activities related to the children's play activities section, accumulating experience for professional scenarios.

Units 5-6: Appreciation and Practice of Chinese and Foreign Instrumental Music (8 lessons)

Teaching Objectives:

Music:

- 1. Familiarize students with the tonal characteristics of common Chinese and foreign instruments.
- 2. Analyze the structure of musical pieces, experience the emotions in the music, and imagine the musical imagery.
- 3. Appreciate the unique charm of traditional Chinese instruments, enhancing cultural confidence.

Integrated Curriculum:

- Integrate instrumental music with early childhood life activity curriculum, establishing a connection between music and early learning activities for child care.
- Incorporate musical content into the children's play activity curriculum, allowing students to construct knowledge through collaborative project-based exploration.
- 3. Equip students with the ability to address issues related to children's play and child care activities.

Games for Young Children

(4 lessons) The "3-6 Years Old Children's Development Guide" emphasizes the importance of art education in early childhood development, suggesting that art education should be fun and guided by children's interests, subtly integrating educational functions into play activities.

"Simulating Nature" Themed Activity:

1. Engage:

Begin by playing the instrumental piece "Hundred Birds Paying Homage to the Phoenix" and ask students: "What natural sounds do you think are simulated in the music?"

2. Explore:

Allow students to explore how different instruments simulate sounds from nature. Encourage them to use everyday tools to mimic these sounds.

3. Explain:

Guide students in connecting the sounds they hear to the timbre, rhythm, and other musical elements. Explain how instruments are used to represent nature.

4. Elaborate:

Encourage students to explore different objects around them that can make interesting sounds and use these objects in a project to create sound-based games for children.

Guide them in creating their own instruments or tools that could be used to simulate natural sounds in play activities.

5. Evaluate:

Students will evaluate their projects through self-assessment, peer-assessment, and teacher feedback, making adjustments as necessary.

Homework:

Think about and connect with other activities related to the children's play activities section, accumulating experience for professional scenarios.

Teachers' Role:

1. Engage:

Present the piece "Hundred Birds Paying Homage to the Phoenix" and engage students in a discussion about the natural sounds simulated by the music.

Pose questions to students to encourage them to think critically about the connection between music and nature.

2. Explore:

Facilitate exploration by encouraging students to identify and experiment with everyday objects to simulate sounds.

Allow students to explore how these sounds relate to musical elements like rhythm and timbre.

3. Explain:

Explain how different sounds represent elements of nature in music, and connect these concepts to the learning goals for young children.

Show how everyday objects can be used in a musical context to simulate natural phenomena.

4. Elaborate:

Encourage students to design and test their own games using sound-making objects. Allow them to apply what they have learned about nature sounds and musical elements in their designs.

Guide students in creating a musical accompaniment for a children's game using the sounds they have explored.

5. Evaluate:

Use self-assessment, peer feedback, and teacher evaluations to assess the students' projects and understanding.

Help students refine their work based on the feedback they receive and adjust their project designs.

Students' Role:

1. Engage:

Listen to the music and think about what natural sounds are represented.

Discuss their ideas with peers about the music's connection to nature.

2. Explore:

Investigate ways to simulate natural sounds using everyday objects.

Experiment with sound-making tools and explore how they relate to musical concepts like timbre and rhythm.

3. Explain:

Share their discoveries with peers and explain how different sounds can represent aspects of nature in music.

Connect the sounds they explore with the concepts of rhythm and timbre.

4. Elaborate:

In groups, design a game or activity that incorporates sound-based tools to simulate natural phenomena, such as wind or animal sounds.

Create a project that applies these sounds in a playful, engaging way for young children.

5. Evaluate:

Assess their own and their peers' projects through feedback and revisions.

Adjust their designs based on the evaluation and prepare to present their work.

Homework:

connect with other activities related to the children's play activities section, accumulating experience for professional scenarios.

Units 7-8: Appreciation and Practice of Chinese and Foreign Instrumental Music (8 lessons)

Music:

 Through selected music excerpts, help students understand the basic concepts of Chinese and foreign opera and musicals.

- Through song appreciation, identify the characteristics of the roles played by different vocal parts in operas or musicals, and the impact of melodic direction on emotions.
- 3. Through performing opera or musical theater, experience the charm and expressiveness of music.

Integrated Curriculum:

- Integrate musical theater with the curriculum of children's life activities to establish a connection between music and early childhood care.
- Master techniques for incorporating singing into children's learning activity curriculum, constructing knowledge through collaborative, project-based exploration.
- Equip students with the ability to address issues related to children's learning and care.

Early Childhood Learning Activity Module: Appreciation and Expression of Children's Literature

(4 lessons)

Spoken Language and Communication for Childcare Workers:

Singing is an art that combines music and language. The expression of language in singing plays a central role in performance (Wei, 2021).

"Musical Commands" Themed Activity

1. Engage:

Organize a class to watch the musical *The North Wind Blows*.

Introduce the concept of musical theater to the students, sparking their curiosity about how music and performance are intertwined.

2. Explore:

Explore the relationship between rhythm (light, heavy, slow, fast) and language expression in the musical *The North Wind Blows*.

Discuss how variations in rhythm and tone affect the way emotions are conveyed in the music.

3. Explain:

Through *Musical Play*, explain how the same words can have different meanings when expressed with different vocal tones in a musical setting.

Highlight the role of intonation, rhythm, and pace in conveying emotion and meaning.

4. Elaborate:

Professional Context Transfer: Guide students to think about the relationship between *Musical Play* and professional oral communication skills in early childhood care. Explore how teachers can effectively communicate with children using varying tones (light, heavy, slow, fast) to emphasize key words, or create a calming atmosphere for sleep.

Discuss how music can be used in the classroom to deliver instructions to children in a way that engages their interest in learning.

5. Evaluate:

Use self-assessment, peer evaluation, and teacher feedback to evaluate the effectiveness of students' understanding and project outcomes.

Homework: Reflect on and connect this activity with other content in the children's learning activity module, accumulating experience for professional scenarios.

Teacher's Role:

1. Engage:

Organize students to watch The North Wind Blows.

Introduce the concept of how music is used to express emotion in the theater and spark student curiosity.

2. Explore:

Lead students in exploring the relationship between rhythm and language expression in the musical.

Encourage students to observe how rhythm influences the tone of voice and emotional delivery.

3. Explain:

Explain how different tones can change the meaning of the same words in a musical theater context.

Guide students in understanding how music and language work together in performance.

4. Elaborate:

Scaffold students' thinking by guiding them to connect the principles of *Musical Play* to real-life situations in early childhood education.

Lead project-based discussions where students design music-based lessons to teach children, utilizing varying tones to convey different meanings and emotions.

5. Evaluate:

Help students reflect on their projects using feedback from self-assessments, peer evaluations, and teacher input.

Adjust and refine lesson content based on feedback, helping students apply their learning to real-life professional contexts.

Students' Role:

1. Engage:

Watch the musical The North Wind Blows.

Reflect on how the music and performance combine to express emotions.

2. Explore:

Investigate how rhythm and tone influence language and emotional expression

in the musical.

Analyze the impact of these elements on the overall performance.

3. Explain:

In groups, research how different tones can change the meaning of words in musical theater.

Discuss how musical elements like rhythm, pitch, and tone can convey emotions and messages.

4. Elaborate:

Collaborate in small groups to design a music-based lesson or activity for young children, focusing on how to use musical commands effectively.

Discuss how varying tones and rhythms in music can influence the way children understand and engage with instructions.

5. Evaluate:

Reflect on their group work and projects using peer evaluations and teacher feedback.

Adjust their project designs based on the evaluations and explore how *Musical Play* could be applied in other educational settings.

Homework:

Consider how to connect this activity with other aspects of early childhood education, gaining insight into professional scenarios.

Units 7-8: Appreciation and Practice of Chinese and Foreign Instrumental Music (8 lessons)

Music:

- 1. Through selected music excerpts, help students understand the basic concepts of Chinese and foreign opera and musicals.
- Through song appreciation, identify the characteristics of the roles played by different vocal parts in operas or musicals, and the impact of melodic direction on emotions.
- Through performing opera or musical theater, experience the charm and expressiveness of music.

Integrated Curriculum:

1. Integrate musical theater with the curriculum of children's life activities to establish a connection between music and early childhood care.
- Master techniques for incorporating singing into children's learning activity curriculum, constructing knowledge through collaborative, project-based exploration.
- Equip students with the ability to address issues related to children's learning and care.

Children's Music Theater Themed Activity

1. Engage:

Organize a class to watch the musical New Mulan.

Introduce the concept of musical theater to the students, asking how the actors' vocal and musical performances contribute to the emotional expressiveness of the piece.

2. Explore:

Investigate how actors' vocal rhythm and the background music create emotional impact in the performance.

Explore how different rhythms, accents, and pitches in the music influence the way emotions are portrayed.

3. Explain:

Explain how music is used to express emotions in musical theater, and how background music complements the action on stage.

Discuss how music can be used to set the tone and atmosphere of a scene.

4. Elaborate:

Discuss the integration of Chinese and foreign musical theater scripts in children's literature appreciation and expression. Explore how music can underscore the emotional atmosphere and support the narrative in children's literature.

Work on a project-based design to create a musical theater script for children, incorporating appropriate music selections and experimenting with video performances.

5. Evaluate:

Use self-assessment, peer evaluation, and teacher feedback to assess students' understanding of the integration of music in children's literature and the effectiveness of their project designs.

Homework: Reflect on how the concepts of children's music theater can be applied in other aspects of early childhood education, gaining insight into professional practice.

Teacher's Role:

1. Engage:

Organize students to watch the musical New Mulan.

Prompt students to reflect on how music enhances emotional expression in musical theater.

2. Explore:

Guide students to investigate how rhythm, tone, and background music influence emotional delivery in the performance.

Encourage students to observe how music interacts with spoken language to enhance the narrative.

3. Explain:

Explain how background music helps create emotional depth in musical theater and supports the overall atmosphere of the performance.

4. Elaborate:

Guide students in brainstorming and designing their own musical theater project for children, discussing the integration of music with children's literature.

Facilitate a project where students choose music and develop a script, applying what they've learned to create an engaging children's performance.

5. Evaluate:

Provide feedback during evaluations, guiding students in refining their projects.

Encourage students to explore how their musical theater designs can be applied in educational settings.

Students' Role:

1. Engage:

Watch the musical New Mulan and reflect on the role of music in the performance.

Discuss how music enhances emotional expression in musical theater.

2. Explore:

Investigate the impact of rhythm, tone, and background music on emotional expression in the performance.

Analyze the interaction between vocal delivery and music.

3. Explain:

Research and discuss how background music in theater influences the emotional and narrative experience of the audience.

4. Elaborate:

Collaborate on a project to design a children's musical theater script, selecting appropriate music and creating a performance that conveys emotion and narrative.

5. Evaluate:

Reflect on group projects using feedback from peers and teachers.

Adjust the project designs based on the evaluation and explore further applications of musical theater in early childhood education.

Homework:

Reflect on how children's music theater can be applied in other areas of early childhood education and gain professional experience.

Unit 9: Dance Music

Music:

- 1. Understand the basic characteristics of dance music and recognize that music is the "soul of dance."
- 2. Appreciate the dance music "Hymn" to guide students in understanding the important role of music in different dance styles.

- Through appreciation, analysis, imitation, and participation in activities, experience the characteristics of both Chinese and foreign dances. Integrated Curriculum:
- 1. Integrate dance music with the early childhood movement and activity curriculum, connecting with early childhood physical education and care.
- 2. Master the skills of incorporating dance music into early childhood movement activities, constructing knowledge through project-based collaborative inquiry.
- 3. Develop the ability to address issues related to early childhood physical care.

Early Childhood Health and Wellness Module (4 lessons) In the article A Brief Discussion on the Role of Music in Early Childhood Health Development by Yue Xiu, it is mentioned that having children sing songs and perform rhythmic movements can help exercise various parts of the body, such as muscles, bones, and ligaments, promoting the development of physical coordination, reducing energy consumption, and improving the responsiveness and coordination of the nervous system. It also enhances cardiovascular endurance and stimulates brain activity, bringing about positive emotions and promoting physical health.

"Body Coordination" Theme Activity

- 1. Engage: Participate in class activities by following the rhythm of the music.
- 2. Explore: Investigate why dance music makes it easy for people to follow rhythmic movements.
- 3. Explain Explain how music and rhythmic movements develop.
- 4. Elaborate Career Situation Transition: Guide students to apply knowledge from early childhood health and wellness into early childhood care scenarios. Explore the role of dance music in children's physical and mental development. Through the "Follow the Music Movement" project-based collaboration, collect movements and music that promote the development of muscles, bones, ligaments, and other body parts. Try to design rhythmic movements within dance music.

 Evaluate: Watch videos and conduct self-assessment, peer assessment, and teacher assessment, then adjust the content as needed.
 Homework Reflect on and connect with other activities in the early childhood physical activity module, accumulating experience for career scenarios.

Dancing Musi

Teacher's Role:

- 1. Organize students to follow the rhythm of the music.
- 2. Guide students to explore the physical responses during the dance music movement.
- 3. Guide students in explaining how music movements develop.
- 4. Support project-based activities, helping students connect early childhood health and wellness with dance music.
- Encourage further exploration of dance music that promotes children's growth.
 Student's Role:
- 1. Follow the rhythm of the music.
- Explore why music, as background music, exerts its emotional and expressive power.
- 3. Collaborate to research how music movements develop.
- In a group project focused on "Body Coordination," identify which music movements are beneficial for children's growth and development. Design a piece of children's dance music.
- 5. Present results for evaluation

Evaluation

Conduct self-assessment, peer assessment, and teacher assessment, and adjust content as neede

Homework:

Reflect on and connect with other activities in the early childhood physical activity module, accumulating experience for career scenarios.

Unit 9: Dance Music Music:

- Understand the basic characteristics of dance music and recognize that music is the "soul of dance."
- 2. Appreciate the dance music "Hymn" to guide students in understanding the important role of music in different dance styles.
- Through appreciation, analysis, imitation, and participation in activities, experience the characteristics of both Chinese and foreign dances. Integrated Curriculum:
- 1. Integrate dance music with the early childhood movement and activity curriculum, connecting with early childhood physical education and care.
- 2. Master the skills of incorporating dance music into early childhood movement activities, constructing knowledge through project-based collaborative inquiry.
- 3. Develop the ability to address issues related to early childhood physical care.

Early Childhood Movement Activity Module 10: Art Appreciation and Practice (Dance)

Early childhood is a stage of physical development, where a good sense of rhythm is particularly important. Cultivating children's sense of rhythm allows them to learn and express complex dance movements through auditory and tactile senses, integrating bodily feelings. Brittany Garrison mentions in her article that "music helps children express themselves in a positive way and helps teachers reduce behavioral problems in preschool classrooms." Dance and music provide numerous benefits to preschool children's physical, cognitive, social, and emotional development (Garrison, 2013).

One of the most effective components of preschool music activities is music movement. Getting children to participate in group dance is especially important for their emotional and social development. The benefits of physical exercise for children include meeting their needs for active musical activities, developing coordination and body awareness, stimulating rhythm development, and promoting a joyful and active learning process (Davidova, 2020).

"Dance Styles" Theme Activity

- 1. Engage: Appreciate a few pieces of dance music.
- 2. Explore: Investigate the characteristics of different dance styles.
- 3. Explain Explain the role of music in dance.
- 4. Elaborate Career Situation Transition: Guide students to transition to Art Dance Appreciation and Practice. Use "Follow the Music Movement" as the theme to discuss which dance music styles are suitable for young children. Connect this with Orff's movement, and through project-based collaboration, design rhythmic movement activities for children, selecting music elements and presenting group results.
- 5. Evaluate: Conduct self-assessment, peer assessment, and teacher assessment, and adjust content as needed. Homework Reflect on and connect with other activities in the early childhood physical activity module, accumulating experience for career scenarios.

Dancing Music

Teacher's Role:

- 1. Organize students to appreciate a few pieces of dance music.
- 2. Guide students to explore the characteristics of different dance styles.
- 3. Organize research on the role of music in dance.
- Facilitate career situation transitions, guiding students into *Art Dance Appreciation and Practice* by discussing which dance music styles are suitable for children and incorporating Orff's movements.
- Encourage further exploration of dance music that promotes children's growth.
 Student's Role:
- 1. Appreciate a few pieces of dance music.
- 2. Explore the characteristics of different dance styles.

- 3. Collaborate to research the role of music in dance.
- 4. Follow the teacher's career scenario: transition into *Art Dance Appreciation and Practice*. Use the project-based collaboration "Follow the Music Movement" as a theme to discuss which dance music styles are suitable for young children, design rhythmic activities, and present group results.
- 5. Present results for evaluation.

Evaluation:

Conduct self-assessment, peer assessment, and teacher assessment, and adjust content as needed. Homework

Reflect on and connect with other activities in the early childhood physical activity module, accumulating experience for career scenarios.

Curriculum Outline for Early Childhood Care Program (Appendix)

- 1. Career Orientation
 - (a) Training Objectives

This program adheres to the principles of cultivating morality and talent, aiming to foster well-rounded successors for socialist modernization. Graduates will possess a solid scientific and cultural foundation in early childhood care, health and safety, early development support, and more. They will develop the ability to work in childcare, safety, and health services for young children in daycare and educational settings. The program integrates ideological education with technical skills development, creating a harmonious and comprehensive training model. Furthermore, it aims to prepare students for higher education institutions.

(b) Continuing Education Programs

Associate Degree in Higher Vocational Education: Preschool Education, Early Childhood Education, Infant and Toddler Care and Management

Bachelor Degree in Higher Vocational Education: Preschool Education, Infant and Toddler Care and Management

General Undergraduate Degree: Preschool Education

(c) Curriculum Structure and Requirement

Public Foundation Required Courses

Following the national curriculum standards for secondary vocational schools, required courses include Chinese, Mathematics, English, Political Science, History, Physical Education, Public Art, Chinese Socialism, Mental Health and Career Planning, Philosophy and Life, Professional Ethics and Law, Basic Computer Applications, and Mandarin.

Core Professional Courses:

The core courses include both basic and specialized courses:

Professional Basics: Early Childhood Health and Care, Child Psychology, Preschool Education, Kindergarten Activity Design, Education Policies, Laws, and Professional Ethics, Communication and Oral Skills for Caregivers

Core Professional Courses: Preschool Activity Design and Guidance (across five areas: Language, Health, Science, Art, Social), Literature Appreciation and Expression for Children, Kindergarten Play, Kindergarten Care, Kindergarten Environmental Design, Preschool Class Management, Montessori Teaching Method, Behavior Observation and Guidance, Parent-School Cooperation.

Elective Public Foundation Courses:

National Security Education, Basic Natural Sciences, Social Sciences, Mental Health.

Elective Professional Courses:

Family and Community Education, Orff Music, Workplace Etiquette, Communication and Oral Skills for Caregivers.

2. Course Descriptions

Professional Basics Courses:

a.Early Childhood Health and Care: Master the basic theories and skills necessary for early childhood care work, including children's physiological characteristics, growth, nutrition, and safety education. Develop a passion for early childhood care and cultivate professional ethics. b.Child Development and Psychology: Understand the principles of children's physical and mental development, learning styles, and characteristics. Equip students with skills to observe and guide child development.

c.Education Policies, Laws, and Professional Ethics: Learn national laws and policies related to child protection and early childhood education, and understand the ethical standards required of caregivers.

d.Early Childhood Art Appreciation and Expression (Music, Dance, and Art): Understand and practice various forms of children's art, including music, dance, and visual arts, as well as how to guide children's creativity.

e.Communication and Oral Skills for Caregivers: Master the basics of oral communication, particularly in educational and caregiving contexts, ensuring clarity and engagement when interacting with children.

Core Professional Courses:

a.Preschool Activity Design and Guidance: Equip students with the knowledge and skills to design, implement, and evaluate educational activities for children aged 0-6 in five major areas (Language, Health, Science, Art, Social).

b.Literature Appreciation and Expression for Children: Learn the structure and importance of children's literature, and develop the ability to adapt and create children's stories.

c.Preschool Education Fundamentals: Understand the principles, objectives, and approaches of preschool education, including the role of play and environmental design in fostering development.

d.Behavior Observation and Guidance for Children: Develop the ability to observe and analyze child behavior, providing appropriate guidance based on observation data.

e.Parent-School Cooperation: Study how to collaborate with parents in supporting child development and implement strategies for effective communication and cooperation.

3. Internship and Practical Training

a.Cognitive Internship:

In the first semester, students will participate in a week-long field experience in kindergartens and early education institutions, gaining practical insights into the profession.

b.Comprehensive Practical Training:

This required training includes career observation, caregiving internship, and teaching observation. Students will deepen their understanding of preschool operations, care activities, and educational practices through direct involvement in both observing and conducting tasks.

c.Job Position Internship:

The final practical stage, designed to help students integrate theory with practice, includes a 540-hour internship in childcare or preschool institutions. Students will gain hands-on experience in caregiving and education.

4. Curricular Schedule and Overall Arrangement

Each academic year consists of 40 weeks, with 18 weeks of teaching per semester and 30 hours per week. The total course hours across three years range from 3240 to 3600 hours, with practical training comprising 60.8% of the total. Elective courses account for 6.1% of the curriculum.

5. Implementation Support

Teaching FacilitiesThe program requires specialized facilities for preschool care and teaching activities, including practical classrooms for early childhood care, piano, dance, and arts.

6. Employment Outlook

Graduates of the Early Childhood Care program are qualified to work in kindergartens, daycare centers, early education institutions, and community education. They can also engage in family education and related fields.

Unit	Name of subject	How to integrate music	Music Activities
		into subjects	
(Units 1-4)	Early childhood life	"A Day in the	Singing
Singing	activities	Kindergarten" theme activity"	(appreciation of
Appreciation	1.Early Childhood	According to the	singing)
and Singing	care knowledge	principle of discipline	Teacher:
Practice	4class hour	integration, that is, the	1. The appreciation of
Module	(Literature collection	principle of music	singing form guides
(16 hours) 4	to establish contacts)	subjectivity, the principle of	students to participate
hours per unit	The "Art Curriculum	discipline integration, the	in different emotions of
Teaching	Standards for	principle of students' active	different music.
Objectives:	Vocational Schools"	participation, the principle of	2. Guide students to
Music:	advocates that art	situational teaching, and the	explore the different
1. Listen,	education should run	principle of cooperation.	emotional orientations
sing, or play	through children's	Follow the steps of the 5E	brought about by
musical	daily life. The early	teaching model.	different music.
themes to	childhood care	1. Engage	3. Serve as a
understand	curriculum mainly	Participate in music	scaffolding to build a
the elements	includes activities	appreciation and feel the	"Kindergarten Day"
of music	related to	different emotions brought	case project activity,
2. Feel the	kindergarten entry,	by different music.	and organize students
stylistic	drinking water,	2. Explore	to explore the
characteristic	sleeping, washing,	Discover why different	children's nursery
s of the work,	eating, leaving the	music expresses different	process through music
be able to	kindergarten and	emotions.	appreciation.
express your	other related "early	3.Explain	4. Organize students
feelings about	childhood care	How the song directs the	to cooperate to explore
the music, or	teaching materials"	emotion to convey the	the role of music and
evaluate the	Craig H. Hart and	content.	music appreciation in

music.	others believe that the	4. Elabortate	all aspects of early
3. Be able to	most obvious way to	(Using Fogarty's Shared	childhood care, and
understand	incorporate music into	Model) to integrate the	exchange the
the cultural	the curriculum is to	singing in music with the	significance of music
connotation of	sing. The lyrics in the	content of the life activities	and music
music in	song can reinforce	unit in the Early Childhood	appreciation.
combination	almost any theme	care knowledge textbook.	5. Organize students'
with historical,	(Craig H. Hart, 1997).	Establish a professional	self-evaluation and
cultural,		situation: In the children's	group mutual
social and		"Early Childhood Care", the	evaluation to help
other		content of the child's daily	students adjust the
backgrounds.		life activities such as	content.
integrate	: / t+	entering the kindergarten,	Student:
Curriculum	: * / ==	drinking water, eating,	1. Feelings
Objectives:	:21	sleeping, and leaving the	Listen to music and
1.	: JV [kindergarten are integrated.	feel the different
Understand		With the theme of	emotions brought by
the	22	"Kindergarten Day", the	different music
connection	L L L	positive and cheerful music	2. Brainstorm "Why do
between		promotes the children to	different music
music and the		enter the kindergarten	express different
content of the		energetically and cheerfully.	emotions"?
children's life		What kind of childcare	3. The group consults
activities		measures do we need to do	information to explain
section.		on Kindergarten Day? To	how the song directs
2. Construct		explore the role of music in	the emotional
interdisciplina		the process of kindergarten	transmission of the
ry thematic		care, meal care and sleep	message.
knowledge of		care. Experience the	4. In the project-based

music and		significance of singing and	case of "kindergarten
children's life		music appreciation on	care",
activities.		children's admission day.	The group divides the
3. Have the		5. Through self-assessment	work to find music
ability to solve		and group mutual	suitable for children's
problems in		evaluation, the content of	kindergarten activities,
the children's		each other, and make	and closely connects
life sector.		adjustments.	with the children's life
		Homework: Think about and	activities. Explore the
		connect other activities	key points of music
		related to the children's life	selection for other
		activity section, and gain	activities in children's
	: ? / t+	experience in dealing with	activities, and show
	: * / ==	career scenarios.	the key points of
	:21	Process Evaluation:	childcare in the
	: JN [Design in the unit summary	process of children's
		link: Use the curriculum	kindergarten entry
	1.9 a	integration mode of fogarty'	through videos.
	<u>н</u>	s webbed to construct the	5. Demonstration of
		theme course by the	project results. Adjust
		students, so as to design the	the content in the self-
		theme content of the	assessment, small
		children's life activities	mutual evaluation and
		section, and design the early	teacher evaluation to
		childhood education	accumulate
		activities according to the	experience in dealing
		theme content. Self-	with professional
		assessment, peer	scenarios.
		evaluation, and teacher	

		evaluation adjust	
		instructional design.	
Singing	Childcare for 0-3	"Sleep Care" Themed Activity	Singing
Appreciation	Years Old (4 class	1.Engage	Music Lyric Creation
and Singing	hours)	Listen to songs in the	Teacher:
Practice	Research shows	form of singing and focus on	1.Organize students to
Module (Units	that by 10 months of	the expression of lyrics.	listen to songs in the
1-4) (16 class	age, infants can	2.Explore	form of singing and
hours) 4 class	already perceive the	Investigate the structural	focus on the
hours per unit	internal structure of	characteristics of the lyrics	expression of lyrics.
Teaching	music and its	and the song's musical form.	2.Guide students to
Objectives	semantic meaning.	3.Explain	think about how the
Music:	The 0-3 Years Old	How can you create	lyrics help shape their
1.Listen to,	Infant Development	lyrics to express your ideas?	understanding of the
sing, or	Indicators clearly	4.Elabortate	music.
perform	stipulate that during	Vocational Context	3.Explain how to
musical	this period, infants	Transfer: Guide students to	create lyrics and
themes, and	should be trained to	transfer their creativity in	convey ideas through
understand	quietly listen to music	lyric writing to the context of	them.
the elements	and follow the music	0-3 Year Old Childcare.	Provide scaffolding
of music.	by performing actions	Through lyric composition,	with the theme of
2.Experience	such as clapping,	students can convey	"Instructional Music,"
the stylistic	nodding, and rubbing	language instructions to	guiding students to
features of	their hands. This	guide children in activities	write lyrics related to
the work and	demonstrates the	such as handwashing, sleep	activities such as
be able to	necessity and	routines, dressing, etc.	handwashing, sleep
express	importance of music	Using project-based	routines, dressing, etc.
feelings about	education in early	collaborative discussions,	for young children.
the music or	childhood care	design a connection	Through project-based

evaluate the	programs. Infants
music.	already have a
3.Understand	specific
the cultural	understanding and
connotations	relatively accurate
of music in	perception of this
relation to	type of music, which
historical,	leads to a strong
cultural, and	desire to express
social	themselves through
contexts.	music and a lasting
Integrated	impression of musical
Curriculum:	instructions (B. Peng,
1.Integrate	2023).
the singing	: 3 TT
module with	· JA
the early	
childhood	22
activity block	
to establish a	
connection	
between	
music and	
children's	
learning	
activities.	
2.Incorporate	
music into the	
daily	

between the theme of "Sleep Care" and the children's activity block, integrating childcare content with lyric composition instructions. 5.Evaluation

Evaluate through selfassessment, group peer reviews, and teacher feedback, adjusting content as needed.

Assignment

Think about and connect other activities related to the children's activity block, accumulating experience in handling professional scenarios.

collaborative discussions, establish connections between the theme and the children's activity block, integrating childcare content with lyric composition instructions.

Participate in evaluation, help adjust the collaborative content, and guide students to think about more lyric creation ideas related to the children's activity block. Students: Participation Pay attention to the expression of lyrics while listening to the song. 4.Exploration Investigate the structural characteristics of the lyrics and the song's

caregiving			musical form.
activities,			Explanation
enabling			Brainstorm how to
students to			create lyrics to convey
construct			ideas.
knowledge			Extension
through			Through project-based
project-based			collaborative
collaborative			discussions, design a
inquiry.			connection between
3.Develop the			the theme of
ability to			"Instructional Music"
address	: 1		and the children's
issues related	: * / ==		activity block,
to early	3 11		integrating childcare
childhood	. 1/ 1		content with lyric
caregiving.			composition
	22		instructions.
			5.Evaluation
			Adjust content through
			self-assessment, peer
			evaluation, and
			teacher feedback.
Singing	Creation of an Early	"Space Care" Themed	Teacher:
Appreciation	Childhood	Activity	1.Remind students to
and Singing	Environment	1.Engage	focus on the
Practice	(4 class hours)	Focus on the expression of	expression of
Module (Units	In Lin Ji's study,	atmosphere in spatial	atmosphere in spatial
1-4) (16 class	Research on	scenes through appreciation	scenes through the

hours) 4 class	Children's Adaptation	of singing.	appreciation of songs.
hours per unit	to Kindergarten and	2.Explore	2.Guide students to
Teaching	Related	Investigate the	explore the
Objectives:	Environmental	characteristics of music in	atmosphere and
Music:	Factors, the	relation to different spatial	emotions expressed
1.Listen to,	qualitative survey	contexts and emotional	through musical
sing, or	showed that creating	expression.	contexts.
perform	a suitable musical	3.Explain	3.Organize
musical	environment can	How can music with different	brainstorming sessions
themes and	foster positive	emotional tones create	for students to
understand	interactions between	different atmospheres for	research and explain
the elements	children and	different spaces?	how music with
of music.	teachers. During this	4.Elabortate	different emotional
2.Experience	process, children	Vocational Context Transfer:	tones creates different
the stylistic	exhibit more positive	Guide students to transfer	spatial atmospheres.
characteristic	emotions, increased	this understanding to	4.Provide scaffolding
s of the work	prosocial behaviors	Creating Early Childhood	with the case study of
and be able	towards peers,	Environments. Through	"The Musical Colors of
to express	improved social skills,	project-based collaborative	Space" to guide
feelings about	and a growing music	discussions on the theme of	students in project-
the music or	literacy. Music	"Space Care," explore how	based collaboration.
evaluate it.	interventions provide	different colors and music	Help them analyze
3.Understand	an opportunity for	can express different	how different colors
the cultural	newly enrolled	emotions. For example, what	and music can
connotations	children to	colors and music pair with a	express different
of music in	understand and	joyful environment? What	emotions, such as
relation to	control themselves,	colors and music suit a quiet	which colors and
historical,	familiarize themselves	environment? Discuss what	music pair with a joyful
cultural, and	with and integrate into	music to pair with different	environment, what

social	the unfamiliar	spaces in early childhood	colors and music suit a
backgrounds.	environment, and	activities.	quiet environment, and
Integrated	enhance their ability	5.Evaluate	what music is
Curriculum:	to handle	Evaluate through self-	appropriate for
1.Integrate	interpersonal	assessment, peer reviews,	different spaces in
the singing	relationships, thereby	and teacher feedback, then	early childhood
module with	promoting the	adjust content flexibly.	activities.
the early	development of	6.Assignment:	5.Evaluate group
childhood	social-emotional skills	Think about and connect	presentations. Help
activity block	(Ji, 2014).	other activities related to the	students adjust and
to establish a		children's activity block,	optimize their content.
connection		accumulating experience in	Assignment:
between	://	handling professional	Think about and
music and the	: * / ==	scenarios.	connect other activities
children's	: 2 TT		related to the
learning and	: JM / IL		children's activity
caregiving	. 2		block, accumulating
activities.	192		experience in handling
2.Incorporate	100 A		professional scenarios.
music content			Students:
into early			1.Appreciate songs to
childhood			feel the different
caregiving			musical atmospheres
activities,			in various spaces.
enabling			2.Explore the
students to			characteristics of the
construct			atmosphere and
knowledge			emotions expressed
through			through musical



			connect other activities
			related to the
			children's activity
			block, accumulating
			experience in handling
			professional scenarios.
(Units 1-4)	Children's Life Activity	"Sound Perception" Thematic	Singing
Singing	Module	Activity	Teacher:
Appreciation	4. Montessori Method	1. Engage	Participation
and Singing	Yan Zhang et al., in	In music appreciation to	Organize students to
Practice	the article Modern	experience the dynamics	appreciate music,
Modul	Insights into	(loud/soft), pitch (high/low),	experiencing its
(16 lessons)	Montessori Music	and timbre of music.	dynamics (loud/soft),
4 lessons per	Education (Zhang,	2.Explore	pitch (high/low), and
unit	2020), mention that	Why do sounds differ in	timbre.
Teaching	children aged 0–6	terms of volume, pitch, and	Exploration
Objectives:	years, during their	timbre?	Pose the question:
Music:	sensitive periods,	3Explain	Why do sounds differ
1.Listen to,	show a strong desire	how the pitch, volume,	in terms of volume,
sing or	to explore and a keen	and timbre of sound relate to	pitch, and timbre?
perform	interest in music.	factors such as amplitude of	Explanation
musical	Young children	vibration, frequency of	students to think
themes to	develop an initial	vibration, and the	about how the pitch,
understand	perception and	characteristics of the sound-	volume, and timbre of
musical	understanding of	producing object.	sound relate to the
elements.	various types of	4.Elaborate	amplitude of vibration,
2.Appreciate	music; for example,	Professional Context	frequency of vibration,
the style and	after hearing a	Transfer: Guide students to	and the structure of the
characteristic	beautiful piece of	transfer knowledge of sound	sound-producing

s of the work,	music, they may gaze	properties to the Montessori	object.
and express	towards the source of	method. In Montessori	Elaboration
feelings about	the sound.	education, music is used to	Guide students to
the music or	Montessori line-	stimulate children's inner	transfer their
evaluate the	following activities	potential and help them	knowledge of sound
music.	guide children to walk	differentiate sound pitches,	properties to the
3.Understand	with objects, walk in	as well as identify the	Montessori method. In
the cultural	sync with music, or	distance of the sound	Montessori education,
connotations	walk outdoors.	source. This helps children	music is used to
of music by	Children may walk	develop musical perception.	stimulate children's
considering	along a line or jog	Through the "Sound	inner potential, helping
its historical,	while listening to	Perception" project-based	them differentiate
cultural, and	music or tapping a	activity, explore how music	sound pitches and
social	tone bell. These line-	is used in Montessori cases	judge the distance of
background.	following activities	to attract children's attention	the sound source. This
Integrated	help children develop	and engage their senses	process helps children
Curriculum:	coordination, control,	comprehensively.	develop musical
1.Integrate	and balance. At the	5.Evaluate	perception. Through
the singing	same time, they allow	Use self-assessment, peer	the "Sound Distance"
activity with	children to listen to	assessment, and teacher	project-based activity,
the children's	various sounds in a	evaluation to assess the	explore how music is
life activity	quiet environment,	activity and make	used in Montessori
modules to	distinguishing the	adjustments to the content	cases to attract
establish	distance and volume	as needed.	children's attention
connections	of sounds, thereby	Homework: Reflect on and	and engage all their
between	enhancing their	connect other related	senses.
music and	auditory sensitivity.	activities from the children's	Evaluation
early		life activity module to	Evaluate the students'
childhood		accumulate experience for	work and help adjust

learning and		professional scenarios.	the content. Guide the
care			design of educational
activities.			activities for other child
2.Incorporate			development modules
musical			beyond the life activity
content into			section.
care-related			Student:
curriculum,			Participation
allowing			Appreciate music and
students to			experience its
construct			dynamics (loud/soft),
knowledge			pitch (high/low), and
through			timbre.
project-based	: * / ==		Exploration
collaborative	: 2 TT		Think about why
inquiry.	·		sounds differ in terms
3.Develop the			of volume, pitch, and
ability to solve	1.98		timbre.
problems			Explanation
related to			In groups, research
early			and explain how the
childhood			pitch, volume, and
care.			timbre of sound relate
			to the amplitude of
			vibration, frequency of
			vibration, and the
			structure of the sound-
			producing object.
			Elabroration



Analyze professional contexts through the "Sound Distance" project-based case study. Guide students to transfer their knowledge of sound properties to the Montessori method. Explore how music is used in Montessori education to stimulate children's inner potential, help them differentiate sound pitches, and assess the distance of the sound source. This aids children in developing musical perception. Through the "Sound Distance" project-based activity, investigate how music is used in Montessori cases to attract children's attention and engage all their senses.

			Group Presentation
			Present group findings
			and make adjustments
			based on evaluations.
Units 5-6:	Connection to	"Orff Orchestra" Thematic	Instrumental Music
Instrumental	Children's Play	Activity	Teacher:
Music	Activity Modules	1.Engage	Help students
Appreciation	5. Early Childhood	Listen to a symphonic	experience the charm
and Practice	Teaching Activity	piece and experience how	of symphonic music.
(8 lessons)	Design	the conductor provides cues	Guide students to
Teaching	The Guidelines for	for each section of the	explore the role of the
Objectives:	Kindergarten	orchestra.	conductor in a
Music:	Education (Trial	2.Explore	symphony.
1.Become	Edition) (hereafter	In a symphony, why is a	Explain how the
familiar with	referred to as the	conductor necessary, and	conductor coordinates,
the timbre	Guidelines) point out	what is the role of the	controls, and
characteristic	that in kindergartens,	conductor?	advances the
s of common	"play is the primary	3.Explain	emotional expression
Chinese and	activity."	How does the conductor	of the orchestra.
foreign	As part of the	influence the dynamics and	Connect the symphony
instruments.	curriculum reform in	emotions of the music?	orchestra to early
2.Analyze	kindergartens, "game-	4.Elaborate	childhood education
musical	based learning" is	Professional Context	activities, with a focus
structures,	considered a "quality	Transfer: Guide students to	on game-based
experience	project," and it also	transfer the coordination and	learning. Create an
the emotions	promotes the 3-6	control skills of a conductor	Orff orchestra thematic
conveyed in	Years -Old Children's	to Early Childhood Education	case for students.
music, and	Learning and	Activity Design. In early	Guide students in
imagine the	Development Guide	childhood education, how	designing early

imagery of	(Pang, 2020).	can the teacher coordinate	childhood teaching
the music.		children's learning activities?	activities and help
3.Appreciate		Through project-based	them understand the
the unique		division of tasks, students	shared concepts
charm of		can explore the process of	between symphonic
instruments		designing educational	conducting and
and enhance		activities for children.	teaching activity
cultural		Discuss various aspects of	design within the
confidence.		the design process,	theme.
Integrated		including goals, steps,	Evaluatio
Curriculum:		strategies, extensions, and	Organize self-
1.Integrate		evaluations, with a focus on	assessment and peer
instrumental		game-based learning for	assessment for
music with	: / ==	children. This can be done	students, assisting
the children's		through video presentations	them in adjusting the
life activity	: M/	and data collection.	content of their
modules to	1.2.	5.Evaluation	presentations.
establish a	22	Use self-assessment,	Homework:
connection		peer assessment, and	Reflect on and
between		teacher evaluation to assess	connect other related
music and		the activity, and make	activities from the
early		adjustments to the content	children's movement
childhood		as needed.	activity module to
learning and		Homework:	accumulate
care		Reflect on and connect	experience for
activities.		other related activities from	professional scenarios.
2.Incorporate		the children's play activity	Student:
musical		module to accumulate	Experience and
content into		experience for professional	appreciate symphonic

the children's	5	scenarios.	music through
play activity			listening.
modules,			Explore the role of the
allowing			conductor in a
students to			symphony orchestra.
construct			Research and explain
knowledge			how the conductor
through			coordinates, controls,
project-based			and drives the
collaborative			emotional expression
inquiry.			of the orchestra.
3.Develop the			Engage in project-
ability to solve			based collaboration to
issues related			design an Orff
to early	3111		instrumental music
childhood	· 11/ 11		theme activity with a
play and care			focus on game-based
activities.			learning, and present
		V	the outcomes.
			Self-assess and
			conduct peer
			evaluations to adjust
			group content.
			Homework
			Reflect on and
			connect other related
			activities from the
			children's play activity
			module to accumulate

			experience for
			professional scenarios.
Units 5-6:	Games for Young	"Simulating Nature" Themed	Instrumental Music
Appreciation	Children	Activity	Teacher:
and Practice	(4 lessons)	1.Engage	1.Organize students to
of Chinese	The Guidelines for	Listen to the instrumental	listen to the
and Foreign	the Development of	piece "Hundred Birds Paying	instrumental piece
Instrumental	Children Aged 3-6	Homage to the Phoenix."	Hundred Birds Paying
Music (8	clearly emphasize the	What instruments can you	Homage to the
class hours)	importance of art	hear in the piece?	Phoenix with questions
Teaching	education in early	2.Explore	in mind. Ask, what
Objectives:	childhood	What sounds from nature	sounds from nature are
Music:	development and	are simulated in the	simulated by the
1.Familiarize	suggest that art	instrumental music?	instruments in the
with the tonal	education should be	3.Explain	piece?
characteristic	enjoyable, guided by	How do these sounds	2.Guide students to
s of common	children's interests,	relate to elements like timbre	explore using common
Chinese and	and subtly integrate	and rhythm in the music?	tools around them for
foreign	educational functions	4.Elaborate	sound simulation
musical	into game activities.	Vocational Context	games.
instruments.	From infancy,	Transfer: Guide students to	3.Act as scaffolding to
2.Analyze	children begin to	simulate the sound of wind	help students explain
musical	make sounds	through the rustling of paper,	how these sounds
structure,	intentionally, such as	and transfer this thinking to	relate to elements like
experience	by striking or kicking.	the "Children's Play" theme.	timbre and rhythm in
the emotions	They are fascinated	Encourage them to use	the music.
conveyed	by sound and their	nearby tools to "simulate	4.Organize students
through	ability to control it. As	nature" (game-based care	into project-based
music, and	infants start to move,	activities). In the project-	learning around the

imagine the	they hit drums,	based game activity,	theme of "Simulating
musical	xylophones, and pots	students will find commonly	Nature." Have them
imagery.	and pans, driven by	used tools and, in	explore everyday items
3.Appreciate	their motor energy	combination with music,	that produce special
the unique	and a fascination with	create and accompany	sounds and
charm of	extreme dynamic	children's games (using	experiment with using
various	levels (Swanwick,	tools that are safe for	them as instruments
instruments	1988). By the age of	children).	for accompaniment.
and enhance	3, children begin to	5.Evaluate	5.Project outcome
cultural	create patterns	Evaluation through self-	presentation. Organize
confidence.	through repetitive	assessment, peer	students to adjust the
Course	actions. By age 5, a	evaluation, and teacher	content through self-
Integration:	stable sense of	assessment, followed by	assessment, peer
4.Through the	rhythm begins to	flexible content adjustments.	assessment, and
integration of	emerge (Moog,	7	teacher assessment.
instrumental	1976). Around the		Students:
music with	age of 5, children also		1.Listen to the
early	show an interest in		instrumental piece
childhood	playing simple		Hundred Birds Paying
activities,	instruments		Homage to the
establish a	"correctly," as their		Phoenix with questions
connection	awareness of social		in mind. Reflect on
between	behaviors increases.		what natural sounds
music and			the instruments in the
children's			piece simulate.
learning			2.Explore sound
activities in			simulation games
care settings.			using common tools
5.Integrate			around them.

musical			3.Research and
content into			explain how these
children's			sounds relate to
play activities,			elements like timbre
enabling			and rhythm in the
students to			music.
acquire			4.In small groups,
knowledge			engage in the themed
through			activity "Simulating
project-based			Nature." Collaborate to
collaboration			find materials and tools
and			suitable for children's
exploration.	://		games, and create an
6.Develop the	: / ==		instrumental
ability to	3111	2:	accompaniment.
address	·		Present the results
relevant	. 2		through video
issues in	1.92		assignments.
children's	N 1		5.Adjust content based
play and care			on evaluation
activities.			feedback.
			Homework: Reflect
			on and connect
			additional activity
			content related to the
			children's play section,
			and accumulate
			experience for
			handling professional

			scenarios.
Units 7-8:	Children's Learning	"Musical Instructions"	Musical Play
Appreciation	Activity Module	Themed Activity	Teacher:
and Practice	7. Appreciation	1.engage	1.Engage
of Chinese	and Expression of	Organize students to watch	Organize students to
and Foreign	Children's Literature	the musical The North Wind	watch the musical The
Instrumental	(4 Lessons)	Blows based on the musical	North Wind Blows.
Music (8	Spoken Language	play format in the music	2.Explore
Lessons)	and Communication	course.	Explore the
Music:	for Childcare Worker	2.Explore	relationship between
1.Through	Singing is an art that	Explore the relationship	the rhythm of light,
music	combines music and	between the rhythm of The	heavy, slow, and fast
excerpts,	language, and the	North Wind Blows—such as	in The North Wind
help students	expression of	light, heavy, slow, and fast	Blows music and the
understand	language in singing	rhythms—and the emphasis	tone of emphasis in
the basic	occupies the most	of tone in language	language expression.
knowledge of	central position in	expression.	3.Explain
Chinese and	performance (Wei,	3.Explain	Explain the different
foreign	2021).	Through Musical Play,	meanings conveyed
operas and		explain how the same words	by the same words
musicals.		in the musical are expressed	expressed with
2.By		with different tones, resulting	different tones in the
appreciating		in different meanings and	musical.
songs,		interpretations.	4.Elaborate
identify the		4.Elaborate	Set up scaffolding for
characteristic		Vocational Context Transfer:	situational transfer to
s of the opera		Guide students to explore	guide students into the
or musical		the professional language	project-based theme
roles		literacy of teachers in	"Musical Instructions."

performed by		communication with young	Through professional
each voice		children in Childcare	verbal communication
part, and how		Workers' Spoken Language	skills between
the melody's		and Communication.	teachers and children,
progression		Investigate how to effectively	demonstrate how to
drives		communicate with children	use different tones—
emotional		using varying tones (light,	light, heavy, slow, and
expression.		heavy, slow, fast), such as	fast—to communicate
3.Through		emphasizing key words in	effectively with young
performing		instructions or using a soft	children. For example,
operas or		and soothing tone in sleep-	emphasize key words
musicals,		inducing activities.	with strong intonation
experience		Organize project-based	when giving
the charm	: / ===	group discussions to design	instructions, use a
and		lessons related to the theme	gentle and soothing
expressivene	. 3//	"Musical Instructions" and	tone during a lullaby,
ss of music.		connect them with the early	etc.
Integrated	22	childhood life activity	How can music
Curriculum:		curriculum. Explore how to	convey instructions to
1.Integrate		use music to convey	children during
musical		instructions to children in	learning, sparking their
theater with		learning activities, thereby	interest in the subject?
the early		stimulating their interest in	Encourage group
childhood life		learning. Share and discuss	collaboration to share
activity		the group's findings.	and discuss results.
curriculum,		5.Evaluate	5.Evaluate
establishing a		Evaluate through self-	Evaluate through self-
connection		assessment, peer	assessment, peer
between		assessment, and teacher	assessment, and

music and the		assessment, followed by	teacher assessment,
care activities		flexible content adjustments.	then adjust the content
in early		Homework:	flexibly.
childhood		Reflect on and connect	Assignment:
education.		additional activity content	Reflect on and connect
2.Master		related to the early	with other related
techniques		childhood learning activity	activities within the
for		curriculum, accumulating	children's learning
incorporating		experience for handling	blocks, accumulating
singing into		professional scenarios.	experience to deal with
the early			professional scenarios.
childhood			Students:
learning	://		1. Engage
activity	: * / ===		Watch the musical
curriculum,			The North Wind
and construct	: M [Blows.
knowledge	. 2		2.Explorate
through	1.92		Reflect on the
project-based			relationship between
collaborative			the rhythm of light,
inquiry.			heavy, slow, and fast
3.Develop the			in The North Wind
ability to solve			Blows music and the
problems			tone of emphasis in
related to			language expression.
early			3.Explain
childhood			Collaborate in groups
learning and			to research and
care.			explain the different



			related activities within
			the children's learning
			blocks, accumulating
			experience to deal with
			professional scenarios.
Units 7-8:	8. Early Childhood	"Children's Musical"	Musical Play
Appreciation	Learning Activity	Thematic Activity	Teacher:
and Practice	Blocks:	1.Engage	1.Organize students to
of Chinese	Early Childhood Care	Organize students to	participate in a musical
and Foreign	Worker Speaking and	participate in the musical	play appreciation
Instrumental	Communication (4	The New Mulan Ci.	session.
Music (8	lessons)	2.Explore	2.Guide students to
lessons)	In early childhood	Explore how actors use the	explore why music,
Music:	literary activities,	changes in the rhythm of	when used as
1.Introduce	focus on the holistic	language and the	background music,
basic	development of	background music	can enhance its
knowledge of	children by	accompaniment to enhance	emotional impact and
Chinese and	integrating music	the emotional impact and	expressiveness.
foreign	throughout the	expressiveness of the music.	3.Organize
operas and	activities. Through the	3.Explain	brainstorming sessions
musicals	mutual penetration	Explain how music is paired	where students
through	and organic	with the script to express	investigate how
selected	combination of music	appropriate emotions.	background music can
musical	and literary works, the	4.Elaborate	enhance musical
excerpts.	emotional impact,	Through the appreciation of	expressiveness
2.Through	motivation, and	Chinese and foreign musical	through musical
song	expressive function of	scripts, transition to	expression and
appreciation,	music can be	Children's Literary	communication.
identify the	harnessed to help	Appreciation and	4.Facilitate

characteristic	children better	Expression. In the context of	collaborative project-
s of the opera	recognize,	a musical background	based discussions to
or musical	understand, express,	creating an atmosphere,	design a theme around
roles	and communicate.	explore the mutual	"Children's Musical
performed by	This, in turn, promotes	penetration between music	Theater," guiding
different voice	their language	and children's literary works,	students to discuss its
parts, as well	development and	expressing language	connection with
as the	enhances the	through different rhythms,	"Appreciation and
emotional	effectiveness of early	stresses, pitches, and	Expression of
drive of the	childhood literary	timbres. Using "Children's	Children's Literature."
musical	activities (Zhu, 2012).	Musical" (learning activity	Focus on how different
melodies.	"Word music" uses	and childcare) as the theme,	rhythms, accents,
3.Experience	vocabulary to express	design a project-based	pitches, timbres, song
the charm	the auditory effects of	collaborative discussion to	repetitions, contrasts,
and	music (or non-musical	create a children's play	variations, and textual
expressivene	sounds). By using	script that suits the physical	expressions are
ss of music	onomatopoeia or	and mental characteristics of	interlinked, and how to
through	word strings to create	children. Select music and	compose music for a
performing	language structures,	attempt to interpret it through	musical script.
operas or	it evokes auditory	video performance.	4.During evaluations,
musicals.	experiences similar to	5.Evaluate	help students adjust
Integrated	music. Rhythm,	Evaluate through self-	content and guide
Curriculum:	stress, pitch	assessment, peer	them to think about
4.Integrate	(intonation), and	assessment, and teacher	how "Children's
music into the	timbre all apply, to	assessment, and then adjust	Musical Theater" can
children's life	some extent, to	the content flexibly.	be integrated into
activity blocks	literature in order to	Assignment:	other areas of early
through the	create a musical-like	Reflect on and connect with	childhood education.
form of	texture (Scher, 1982).	other related activities within	Students:
musicals,	Craig H. Hart believes	the children's learning	1.Participate in
-----------------	------------------------	-------------------------------	-------------------------
establishing a	that songs carry	activity blocks, accumulating	listening to musical
connection	language, actually	experience to handle	play appreciation
between	reinforcing the rhythm	professional scenarios.	sessions.
music and the	and melodic structure		2.Investigate why
childcare	of words, phrases,		music, when used as
aspects of	and sentences. When		background music,
children's life	children hear or sing		can have emotional
activities.	a song, they		and expressive effects.
5.Master the	experience		3.Brainstorm and
techniques	vocabulary, phrase,		gather information on
for	and sentence		how to use
incorporating	structures, as well as		background music to
singing into	the rhythm and		enhance musical
the	melodic flow of		expressiveness
curriculum	language (Craig H.		through musical
content of	Hart, 1997).		expression and
children's	22		communication.
learning			4.Work in small groups
activities,			on a project-based
exploring			theme of "Children's
through			Musical Theater,"
project-based			discussing its
collaborative			connection with
inquiry.			"Appreciation and
			Expression of
			Children's Literature."
			Focus on how different
			rhythms, accents,

			pitches, timbres,
			repetitions, contrasts,
			and variations connect
			with textual
			expressions and
			compose music for a
			musical script.
			5.During the evaluation
			process, adjust
			content and reflect on
			how "Children's
			Musical Theater" can
	: 1		be applied to other
			areas of early
	:3111		childhood learning.
	: 1/1		Assignment: Reflect on
			and connect activities
	22		related to the
			movement activities
			section for children,
			accumulating
			experience for
			professional settings.
Unit 9: Dance	Early Childhood	Coordinating the Body -	Dancing Music
Music	Health and Wellness	Thematic Activity	Teacher:
Music:	Section	1.Engage	1.Organize students to
1.Understand	(4 lessons)	Engage in class by following	follow the rhythm of the
the basic	In the article "A Brief	the rhythm of the music and	music and engage in
characteristic	Discussion on the	performing movements.	rhythmic movement.

s of dance	Role of Music in the	2. Explore	2.Guide students to
music and	Healthy Development	Explore why dance music	explore and feel the
comprehend	of Young Children" by	makes it easier for people to	body's response
how music is	Yue Xiu, it is	follow rhythmic movements.	during the dance
the "soul of	mentioned that	3. Explain	music movement
dance."	engaging children in	Explain how music and	process.
2.Appreciate	singing while	rhythmic movement develop.	3.Guide students to
the dance	performing rhythmic	4. Elaborate	explain how music and
music piece	movements can	Professional Context	rhythmic movement
"Ode" and	exercise various parts	Transfer: Guide students to	develop.
guide	of the body, such as	integrate the knowledge of	4.Scaffold learning
students to	large and small	early childhood health from	through project-based
understand	muscles, bones, and	the "Early Childhood Health	thematic activities,
the important	ligaments. This helps	and Wellness" section into	helping students
role music	conserve energy,	real-world childcare settings.	connect with early
plays in	enhances the	Explore the role of dance	childhood health and
different	coordination of the	music in the physical and	wellness. Further
dance styles.	nervous system, and	mental development of	explore dance music
3.Through	improves reaction	young children. Through the	that promotes
appreciation,	speed. It also	"Follow the Music and	children's growth and
analysis,	increases the	Rhythm" project-based	development.
imitation, and	endurance of organs	collaboration, collect	Students:
participation	such as the heart and	movements and music that	1.Follow the rhythm of
in experiential	lungs. Additionally,	promote the growth and	the music and engage
activities, feel	listening to beautiful,	development of various	in movement.
the	lyrical songs can	parts of the body, such as	2.Explore why music,
characteristic	invigorate the child's	large and small muscles,	as background music,
s of both	body, making their	bones, and ligaments. Try to	can have emotional
Chinese and	movements more	design rhythmic movements	impact and

foreign	coordinated,	within dance music.	expressiveness.
dance.	increasing lung	5. Evaluate	3.Collaborate to
Integrated	capacity, and	Each group watches videos	research how music
Curriculum:	promoting blood	and conducts self-	and rhythmic
1.Integrate	circulation,	assessment, peer	movement develop.
dance music	respiration, endocrine	evaluation, and teacher	4.Work on an "Body
with the	function, and	evaluation, making	Coordination" themed
children's	metabolism. The	adjustments to the content	early childhood project
physical	stimulation of the	as necessary.	case. In groups,
activity	child's nervous	Assignment:	investigate which
section,	system and brain	Reflect on and connect	rhythmic movements
connecting it	excitement brings	other activities related to the	are beneficial for
with relevant	about a joyful mood,	early childhood movement	children's growth and
content in	thus promoting overall	activities section,	development, and
early	physical health in	accumulating experience for	design a children's
childhood	young children.	professional settings.	dance music piece.
physical			5.Present the results.
education.	92		Conduct self-
2.Master the	1		assessment, peer
techniques of			evaluation, and
incorporating			teacher evaluation,
dance music			making adjustments as
into the			needed.
children's			Assignment:
physical			Reflect on and
activity			connect other activities
section,			related to the early
building			childhood movement
knowledge			activities section,

through			accumulating
project-based			experience for
collaborative			professional settings.
inquiry.			
3.Develop the			
ability to			
address			
issues related			
to early			
childhood			
physical			
education			
and care.			
Unit 9: Dance	Children's Physical	"Dance Styles" Themed	Dancing Music
Music	Activity Section 10:	Activity	Teacher:
Music:	Art Appreciation and	1.Engage	1.Engage
1.Understand	Practice (Dance)	Listen to several pieces of	Organize students to
the basic	Young children are in	dance music.	appreciate several
characteristic	the stage of physical	2.Explore	pieces of dance music.
s of dance	development, and a	Explore the characteristics	2.Explore
music and	good sense of rhythm	of different dance styles.	Guide students to
appreciate	is especially	3.Explain	explore the
that music is	important. Developing	What is the role of music in	characteristics of
the "soul of	a child's sense of	dance?	different dance styles.
dance."	rhythm helps them	4.Elaborate	3.Explain
2.Appreciate	engage through	Career Context Transfer:	Organize students
the dance	auditory and tactile	Guide students to apply	to research and
music Hymn	senses, then integrate	what they've learned to Art	explain the role of
of Praise to	those with physical	Dance Appreciation and	music in dance.

	-		
guide	movements to learn	Practice. Using the theme	4.Elaborate
students in	and express complex	"Following the Rhythm of	Scaffold the
understandin	dance steps. Brittany	Music," discuss which	transition into a
g the	Garrison mentions in	dance music styles are	professional context:
important role	her paper that "music	suitable for young children.	Guide students to
of music in	helps children	This can be linked to Orff	transfer their learning
different	express themselves in	movement activities, where	to Art Dance
dance styles.	positive ways and	students design movement	Appreciation and
3.Through	helps teachers	activities for children through	Practice. Using the
appreciation,	reduce behavioral	project-based collaboration.	theme "Following the
analysis,	issues in preschool	Explore the elements of	Rhythm of Music,"
imitation, and	classrooms. Dance	rhythm and select music to	discuss which dance
participatory	and music have	showcase group outcomes.	music styles are
activities,	physical, cognitive,	5.Evaluate	suitable for young
experience	social, and emotional	Evaluate through self-	children. This can be
the	benefits for preschool	assessment, peer	linked to Orff
characteristic	children" (Garrison,	assessment, and teacher	movement activities,
s of both	2013).	feedback, and adjust the	where students design
Chinese and	One of the most	content flexibly as needed.	movement activities for
foreign	effective components	Assignment:	children through
dances.	of music activities for	Think about and connect	project-based
Integrated	preschool children is	other activities related to	collaboration. Explore
Curriculum:	musical movement.	children's physical activity	rhythm elements and
1.Integrate	Involving children in	sections, accumulating	select music to
dance music	group dances is	experience to handle	showcase group
with the	especially important	professional scenarios.	results.
curriculum of	for their emotional		5.Evaluate
children's	and social		Evaluate through self-
physical	development. The		assessment, peer

activities,	benefits of movement		assessment, and
connecting it	for children are		teacher feedback, then
with relevant	particularly		adjust the content
aspects of	significant: meeting		flexibly.
early	children's need for		Assignment:
childhood	active musical		Think about and
physical	activities, developing		connect other activities
education.	coordination and		related to children's
2.Master the	body awareness		physical activity
techniques	through movement,		sections, accumulating
for	stimulating and	7.0	experience to handle
incorporating	developing a sense of		professional scenarios.
dance music	rhythm, and fostering	41.	
into children's	a joyful and active	±\1:N	Students:
physical	learning process		1.Engage
activity	(Davidova, 2020).	T S:	Appreciate several
sections, and			pieces of dance music.
construct			2.Explorate
knowledge			Reflect on the
through			characteristics of
project-based			different dance styles.
collaborative			3.Explain
inquiry.			Collaborate in groups
3.Develop the			to research and
ability to			explain the role of
address			music in dance.
issues related			4.Elaborate
to children's			Follow the teacher into
physical			a professional context:



	connect other activities
	related to children's
	physical activity
	sections, accumulating
	experience to handle
	professional scenarios.



Appendix5:

Quantitative Rating Scale

Dimension	Criteria	1	2	3	4	5
Relevance of Theoretical Foundation	Compatibility of Multiple Intelligence Theory, Fogarty Model, and BSCS 5E Model					
	Whether it aligns with the "National Art Curriculum Standards"					
	Suitability for interdisciplinary integration, especially in music and early childhood care					
Guidance and Clarity of Learning Objectives	Clear alignment with early childhood care professional requirements and societal expectations					
	Whether knowledge, skills, and emotional objectives are clearly defined and progressive					
	Whether it promotes the development of interdisciplinary thinking to meet societal needs					
Adaptability and Innovation of Teaching Strategies	Flexibility of teaching strategies to adapt to different learning environments					
	Whether the music integration methods and strategies meet students' learning characteristics and reflect personalized education principles					
	Whether the five course integration principles (music subject focus, comprehensive curriculum, student participation, contextual teaching, and collaboration principles) are effectively embodied					
Operability of Teaching Process	Whether the course design process, teaching steps, and assessment methods are clear and standardized					
	Whether teachers can easily get started and flexibly adjust the teaching plan					
	Whether teaching resources are easily accessible, and implementation is economical and feasible					
Student Collaboration and Engagement	Whether interactive group tasks or project-based learning activities are designed					
	Whether diverse participation forms are provided to promote autonomous learning and inquiry					
	Whether cooperative learning helps develop communication skills and team spirit					
Scientific and Comprehensive Teaching Evaluation	Whether the evaluation system balances the assessment of knowledge acquisition, skill application, and emotional attitude					
	Whether 5C skills (Critical thinking, Communication, Collaboration, Creativity, Cross- cultural skills) are integrated into the evaluation system					
	Whether the evaluation system integrates process, performance, and summative assessments to support student improvement					

Scale Scoring Design :

Scale Scoring Criteria

Please score each dimension according to the following criteria. The scoring scale is from 1 to 5, with the following explanations:

- 1 = Strongly Disagre
- 2 = Disagree
- 3 = Neutral
- 4 = Agre
- 5 = Strongly Agree

5E3 Teaching Model Effectiveness Evaluation - Expert Scoring Table

Scoring Dimension	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Average
Clarity of Objectives	5	4.5	5	4.5	5	4.8
Interdisciplinary Integration	5	5	4.5	5	4.5	4.8
Scientific Design of 5E Phases	4.5	4	5	4.5	4.5	4.5
Innovation in Teaching Strategies	5	5	5	4.5	4.5	4.8
Promotion of Student Ability	4.5	4.5	4	5	4.5	4.5
Comprehensive Evaluation	4.5	4.5	4.5	4.5	4.5	4.5
Alignment with Societal Needs	5	5	4.5	5	5	4.9
Practical Feasibility	4	4.5	4	4	4.5	4.2



List of Experts:

He Na, Ph.D., Associate Professor, Vice Dean of the School of Music, Sichuan Chengdu Vocational University of Arts. She is the Deputy Editor of the Vocal Performance Guide Handbook (Chinese Works), part of the new media integrated series for higher education music programs, and a contributing editor for the national university music curriculum textbook Vocal Training Exercises Collection.

Zhai Meng, Associate Professor, Director of the Arts Department at Sichuan Yibin Vocational and Technical College, Researcher at Chengdu Educational Science Research Institute, and Academic Secretary of the Sichuan Provincial Vocational Education Arts Research Center.

Hu Chenlong, Head of the Music Department at Sichuan Panzhihua Economic and Trade Tourism School, winner of the First Prize in the Innovation Cup National Vocational Schools Aesthetic Education Teaching Design and Presentation Competition.

Du Nanshan, Head of the Early Childhood Education Department at Sichuan Nanchong Vocational and Technical School, recipient of the First Prize in the Sichuan Provincial Vocational School Education and Teaching Skills Competition.

Cao Jianqiang, Head of the Arts Department at Sichuan Nanxi Vocational and Technical School, recipient of the First Prize in the Sichuan Provincial Vocational School Education and Teaching Skills Competition. 00000000

Focus Group Interviews

Expert 1 (Education Policy Scholar):

Currently, early childhood education policies emphasize "high-quality" development, while vocational schools' early childhood care programs often face a mismatch between curriculum design and industry demands. The interdisciplinary teaching model innovatively integrates musical intelligence into the core curriculum of early childhood care, aligning with policy directions and promoting the alignment of vocational education with societal needs. Based on the analysis of the reliability and validity of the survey and its conclusions, students, teachers, and graduates highly recognize the music-integrated teaching model. The combination of formative, performance-based, and summative evaluations allows for a comprehensive assessment of students' learning outcomes and the practicality of the teaching model. It is recommended to continue optimizing evaluation dimensions during implementation.

Expert 2 (Early Childhood Education Researcher):

Interdisciplinary teaching models can stimulate students' creativity and enhance their comprehensive practical abilities. Under the "1+X" certificate system, this model not only improves students' employment competitiveness but also aligns with the national goal of cultivating multi-skilled, interdisciplinary talent.

Expert 3 (Music Education Expert):

The diverse characteristics of music make it highly suitable for interdisciplinary integration, particularly in the field of early childhood care. Music facilitates holistic development in areas such as language, emotional regulation, and physical coordination. The 5E3 teaching model proposed in this study gradually promotes deep integration of music and care courses, offering an effective pathway that bridges theory and practice.

Expert 4 (Vocational Education Expert):

The curriculum cases designed with music integration, such as morning greeting songs and rhythm percussion games, reflect the characteristics of aligning course content with children's real-life experiences and vocational applications. Students not only master knowledge points but also apply what they learn in authentic scenarios. This teaching model is worth further promotion.

Expert 5 (Teaching Model Design Expert):

In real kindergarten settings, the music-integrated teaching model better meets the diverse needs of children. Particularly, the Shared Model phase helps novice teachers quickly identify intersections between disciplines, while the Webbed and Integrated Models assist experienced teachers in deepening curriculum innovation.

Focus Group Evaluation Summary and Recommendations:

a.For the Teaching Model Diagram:

It is recommended to incorporate the key components of Fogarty's teaching model's three phases into the 5E3 teaching model to more clearly illustrate the gradual progression from foundational concepts to thematic learning and then to project-based deepening.

b.For the Framework Content of the Five Sections of the Teaching Model:

Refining Teaching Objectives:

It is suggested to further detail the knowledge, skill, and emotional objectives, adding guidance for developing students' abilities at different levels. For example, in skill objectives, clarify whether students need to independently design comprehensive course plans.

Optimizing Teaching Strategies:

In course design, personalized teaching strategies can be strengthened. For instance, more tasks under the Shared Model could be designed for students with weaker foundations, helping them establish basic connections between music and early childhood care courses.

In the Webbed Model, enhance connections with real educational scenarios by involving kindergarten teachers in teaching and providing more practical case studies.

Enhancing Diversity in Course Resources:

Offer a richer variety of interdisciplinary teaching resources, such as integrating Al tools to assist in music creation, enabling students to complete project designs more efficiently.

Strengthening Teacher Training:

Promote the participation of frontline teachers in training for the musicintegrated teaching model. Workshops can be organized to explain theoretical foundations and practical cases, gradually aligning teaching concepts with practical applications.

Building a Long-term Evaluation Mechanism:

In the evaluation process, add tracking and feedback on students' career development data after graduation to explore the long-term impact of the musicintegrated curriculum on their professional growth.

By implementing these expert interview insights and evaluation recommendations, this teaching model provides a scientific, practical, and policyaligned solution for early childhood care programs, laying a solid foundation for future teaching reforms.



Appendix 6

6Comprehensive document on human ethics File



AF19-03-03.1 August, 2023

หนังสือรับรองจริยธรรมการวิจัยในมนุษย์

หนังสือฉบับนี้ให้ไว้เพื่อแสดงว่า

ชื่อโครงการวิจัย : การพัฒนารูปแบบการจัดการเรียนการสอนแบบบูรณาการโดยใช้ดนตรีเป็นฐาน สำหรับผู้เรียนหลักสูตร การศึกษาก่อนวัยเรียน

ชื่อหัวหน้าโครงการวิจัย : นางสาวQianli Liu

หน่วยงานต้นสังกัด : บัณฑิตวิทยาลัย มหาวิทยาลัยศรีนครินทรวิโรฒ

หมายเลขรับรองโครงการวิจัย : SWUEC-672423

รายการเอกสารที่รับรอง :

តេ រ	2020204 :	
1.	แบบเสนอเพื่อขอรับการพิจารณา	ฉบับที่ 2 ลงวันที่ 16 กันยายน 2567
2.	โครงการวิจัยฉบับสมบูรณ์	ฉบับที่ 1 ลงวันที่ 25 มิถุนายน 2567
3.	เอกสารข้อมูลและขอความยินยอมสำหรับอาสาสมัคร	ฉบับที่ 1 ลงวันที่ 25 มิถุนายน 2567
4.	เครื่องมือที่ใช้ในการวิจัย	ฉบับที่ 1 ลงวันที่ 25 มิถุนายน 2567
5.	ประวัติผู้วิจัย	
ได้เ	น่านการรับรองจากคณะกรรมการจริยธรรมสำหรับพิจารณาโครงก	ารวิจัยใบบบษย์ บหาวิทยาลัยศรีบคริเ

ได้ผ่านการรับรองจากคณะกรรมการจริยธรรมสำหรับพิจารณาโครงการวิจัยในมนุษย์ มหาวิทยาลัยศรีนครินทรวิโรฒ โดยยึดหลักเกณฑ์ตาม Declaration of Helsinki, Belmont Report, International Conference on Harmonization in Good Clinical Practice (ICH-GCP), International Guidelines for Human Research ตลอดจนกฎหมาย ข้อบังคับและ ข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการวิจัยตามโครงการวิจัยนี้ได้

วันที่รับรอง : 25 กันยายน 2567 **วันที่หมดอายุ :** 24 กันยายน 2568

9 6 (ลงชื่อ).

(รองศาสตราจารย์ ดร.สิทธิพงศ์ วัฒนานนท์สกุล) ประธานคณะอนุกรรมการจริยธรรมสำหรับพิจารณาโครงการวิจัยที่ทำในมนุษย์ ชุดลังคมศาสตร์และพฤดิกรรมศาสตร์ (ชุดที่ 2) มหาวิทยาลัยศรีนครินทรวิโรฒ

หน่วยจริยธรรมและมาตรฐานการวิจัย มหาวิทยาลัยศรีนครินทรวิโรฒ อาคารนวัตกรรม ศ.ตร.สาโรช บัวศรี ขั้น 17 โทร. (02) 6495000 ต่อ 17503, 17506 โทรสาร (02) 2042590

Participant Information Sheet

Research title: THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS Principal Investigator: Oianli Liu

Timeipai investigator. Qiann Elu

Institution: Srinakharinwirot University

Co-participating researchers: -

Research funding source: -

Dear Participant

I (Qianli Liu. Student in Doctor of Education Program in Arts Education, Faculty of Fine Arts, Srinakharinwirot University) am carrying out a research on " THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS" with the objectives of the research: 1) to learn and analyze the current situation of the implementation of the teaching model of the early childhood care profession and the needs of society; 2) to construct a teaching model based on the compulsory courses of early childhood care based on music integration; and 3) to validate the teaching mode of music integrated with the compulsory courses of early childhood care.

The direct benefit you will receive from this study is to improve the comprehensive application ability and employment competitiveness of professional knowledge of childcare in vocational schools, which is conducive to connecting the later teaching practice courses and adapting to the real social teaching practice. It is of great significance to cultivate innovative and compound conservation talents that meet the needs of the development of the times. However, the information gained will help you to improve your skill in integrating music in teaching and learning early childhood care program.

You are free to decide whether or not to take part in this study, but if you decide to take part, the researcher will ask you to answer the questionnaire and divide it into 2 parts. Part 1 is 3 questions about personal information and Part 2 is 11 questions about The current situation and social needs of the teaching model of early childhood care Answering the questionnaire will take approximately 10 minutes and Questionnaire Star backend collects information.

The researchers wanted to discuss this issue in focus interview thematic groups about this issue: What was the teaching mode and social demand of the nursery school profession in the early stage of the reform? How to construct a teaching model based on the compulsory courses of music integration and conservation? Can the teaching model of the music integrated conservation curriculum be constructed to adapt students to the current career development needs? Whether the integrated music teaching model can achieve the national goal of cultivating compound talents in early childhood care.

It will take approximately 30 minutes to interview At a location convenient to you with privacy protection. At time convenient to you During the interview, the researcher will ask for permission to record the interview. If the researcher needs additional information, we will ask for your permission to make an appointment for you to be interviewed on a date and at a suitable time that is convenient for you. If you do not wish to be interviewed additionally. The researcher will use only the information



obtained from this interview for research purposes. Approximate time needed 3 Times Request an appointment in advance for you to participate in a group discussion with other participants, including 12 number of people. When conducting the group discussion, the researcher will request permission to record the audio and you may use a pseudonym if you do not wish to use your real name.

You have the right not to answer questions if you feel uneasiness or uncomfortable due to some questions. You have the right to withdraw from this study at any time without prior notice, and your refusal to participate or withdrawal from this study will not in any way affect your study and work.

The information we collect from you will be kept in a secure place and will not be disclosed to the public. The results of the study will only be reported in general terms. This information will be in an anonymous form and will not be identified or contacted. There may be groups who may request access to your personal information for the purpose of checking the accuracy of data and research procedures, including research ethics committees, research coordinators, research supervisors, and officials of governmental agencies or organizations responsible for inspections. Data will be destroyed by the research rupon completion of the research investigation.

You will not be compensated for your participation in this study, nor will you be charged any fees.

If you have any questions about this study, please feel free to contact us at qianli.liu@g.swu.ac.th

If you have been subjected to unspecified treatment or would like to know your rights in participating in this study, you can contact the Chair of the Human Research Ethics Committee at the Ethics and Research Standards Division, Srinakharinwirot University, 17th floor of the Innovation Building, Prof. Dr. Saroj Buasri, Khon Kaen North Sub-district, 23 Sukhumvit Rd. 114 Wanthana District, Bangkok Tel 02-6495000 ext. 17501, 17505 Fax 02-2042590 E-mail swuec@g.swu.ac.th, in accordance with the International Ethical Standards for Human Research to protect to ensure your rights, safety and well-being.

Thank you very much.



Informed Consent Form

I [Ms./Miss/Mr.] have read and understood/listened to the information from Qianli Liu about volunteering to participate in the research study on THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS with the following explanatory message, including detailed information about the purpose of the study, detailed information about the steps I need to take and accept, the benefits I will get from participating in the study, the potential risks of my participation in the study, and guidelines to prevent such risks. I have read/listened to the explanations in the participant information sheet and received the researcher's answer to this question and have had enough time to decide whether to participate in the study.

In addition, I was assured by the researcher that my information would be securely protected and that no personal names or personal information would be released to the public. The results of this study are presented as a whole and summarized for academic purposes only.

"I voluntarily participate in this research study as a volunteer", and I can withdraw from the study at any time and unconditionally if I wish. I have been confirmed that there will be no future repercussions or loss of rights.

I sign this document because I understand the contents of this information sheet and agree to volunteer.

(In case the participants are	e unable to read but able to understand)
I was unable to read it, but until I fully understood it. I form.	the researcher read the contents of this consent form to therefore voluntarily affix my fingerprints on this conse
Fingerprint of participant	
	Date

Signature of person			
requesting consent (Date	
Signature of the principal investigator	(Date	
Witness testimony from wit volunteer is unable to read b	ness who has no conflict of i but can listen to the explanation	interest in the study (only if the on)	
I have participated in the has read/explained the information said person has had the or participate in the study after document.	e procedure and confirm tha nation document to pportunity to ask various c r being informed of the avail	t the person requesting consent where the questions and freely decide to lable information shown in this	
Witness signature)	Date	
	,	X	
		Version 1 Date 25 June 2024 SWU-EC APPROVED	P

The first step is to investigate and analyze the current situation and social needs of the teaching mode of early childhood care in vocational schools. Research Tools: Questionnaires

Questionnaire on the implementation status and social needs of the teaching model of early childhood care in vocational schools (Likert scale) (students).

Dear Students,

Hello! In order to better understand the implementation status and social needs of the professional teaching model of early childhood care in vocational schools, we specially designed this questionnaire. Please take your time to fill in the following questions according to your actual situation. Your comments and suggestions are very important to us and will help us to improve the quality of our teaching and professionalism.

1. Overview of basic information

Question 1: What is your current grade level?

- [] First grade
- [] 2nd grade
- [] 3rd grade
- [] Graduated

Question 2: What is your gender?

- [] Man
- [] Woman

2. Survey on the current situation and needs of the teaching mode of early childhood care

Question 1: Are you satisfied with the current teaching methods of the early childhood care profession?

- [] Very satisfied
- [] Somewhat satisfied
- [] General
- [] Not very satisfied
- [] Very dissatisfied

Question 2: What do you think needs to be improved in the current teaching style? (Multiple Choice)

- [] Teaching Philosophy and Objectives [Please answer in this area].
- [] Teaching methods and means
- [] Steps to teach the content
- [] Methods of teaching evaluation
- [] Other: [Please answer in this area]



Question 3: What do you think is your current level of theoretical knowledge in the early childhood care profession?

- [] Very solid
- [] Relatively solid
- [] General
- [] Not solid enough
- [] Very unsolid

Question 4: Are you satisfied with the teaching content of the Early Childhood Care major?

- [] Very satisfied
- [] Somewhat satisfied
- [] General
- [] Not very satisfied
- [] Very dissatisfied

Question 5: Do you think the practical training of the early childhood care profession is effective?

[] Very effective

- [] Relatively effective
- [] General
- [] Not very effective
- [] No effect at all

Question 6: How much do you think the content of the public art course will help to improve the practical operation of early childhood care courses?

- [] Very helpful
- [] Relatively helpful
- [] General
-] Not very helpful
- [] Didn't help

Question 7: What are the most common difficulties you encounter in practice? (Multiple Choice)

- [] The theoretical knowledge is not solid enough
- [] Skills training is inadequate
- [] Lack of practical experience
- [] Weak ability to integrate knowledge and solve problems
- Other: [Please answer in this area]

Question 8: Do you think the knowledge you have learned can meet the needs of future professional practice development?

- [] Totally satisfied
- [] Basically satisfied
- [] Not sure
- [] Not very satisfied



[] Not satisfied at all

Question 9: Do you understand the latest developments and trends in the current early childhood care industry?

- [] Very well understood
- [] Better
- [] General
- [] Not very well understood
- [] Completely unintelligible

Question 10: Do you understand the current demand for early childhood care professionals?

- [] Very well understood
- [] Better
- [] General
- [] Not very well understood
- [] Completely unintelligible

Question 11: How do you see your future career prospects in early childhood care?

- [] Very optimistic
- [] More optimistic
- [] General
- [] Not so optimistic
- [] Very unoptimistic

Question 12: What do you think are the key factors that improve job prospects?

- [] Pay attention to industry development trends
- [] Gain practical experience
- [] Enhance professional skills
- [] Improve their overall quality
- Other: [Please answer in this area]

Question 13: Please write down any comments and suggestions you have about the teaching model here.

Thank you for participating in this survey, your feedback is important for us to improve our teaching and improve the quality of education. All information you provide in the questionnaire will be strictly protected, and we respect and protect the privacy of every participant.



Questionnaire on the Implementation Status and Social Needs of the Teaching Model of Early Childhood Care in Vocational Schools (Likert Scale) (Teachers).

Dear Teachers,

Hello! In order to gain an in-depth understanding of the implementation status and social needs of the professional teaching model of early childhood care in vocational schools, we designed the following questionnaire. Please tick the corresponding options according to the actual situation. Your answer is very important to us, thank you for your support and cooperation!

1. Overview of basic information

2. The name of your vocational school is: [Please fill in]

3. The number of years you have taught in the early childhood care profession is:

- [] Within 1 year
- [] 1-5 years
- [] 5-10 years
- [] 10-20 years
- [] More than 20 years

3. Your current job title is:

- [] Assistant Lecturer
- [] Lecturer
- [] Associate Senior Lecturer
- [] Senior Lecturer
- [] Other (please fill in).

2. Survey on the current situation and needs of the teaching mode of early childhood care

Question 1: Are you satisfied with the current teaching model of the early childhood care major? xiang

- [] Very satisfied
- [] Somewhat satisfied
- [] General
- [] Not very satisfied
- [] Very dissatisfied

Question 2: Do you often reflect on your teaching so that you can continuously improve your teaching model?



- [] Reflect frequently and have a clear direction for improvement
- [] There are times when there is reflection, but the improvement is not noticeable
- [] There is little reflection and the teaching method is more fixed
- [] Never reflect, teach step by step
- Other: [Please answer in this area].

Question 3: Do you think the current teaching model of early childhood care meets the needs of the industry?

- [] Fully adapted
- [] Basic adaptation
- [] Not very adaptable
- [] Not at all adaptable
- Other: [Please answer in this area].

Question 4: What are the main teaching methods you use in your teaching process? (Multiple Choice)

- [] Didactic teaching
- [] Blended teaching
- [] Project-based teaching
- [] Interactive teaching
- Other: [Please answer in this area].

Question 5: Do you think the current course content arrangement is reasonable?

- [] Very reasonable
- [] Reasonable
- [] General
- [] Not quite reasonable
- [] Very unreasonable

Question 6: What do you think is the current demand for early childhood care professionals?

- [] High demand
- [] Demand is stable
- [] Demand is average
- [] Insufficient demand
- [] Demand is severely insufficient

Question 7: How do you think the employment trend of early childhood care will develop in the future?

- [] The employment prospects are promising
- [] Competition for jobs is fierce
- [] Employment pressure is high
- [] The employment outlook is uncertain

Other: [Please answer in this area]



Question 8: What teaching methods do you usually use to stimulate students' interest in learning and improve teaching effectiveness? (Multiple Choice)

- [] Didactic method
- [] Case study method
- [] Group discussion method
- [] Project-based pedagogy
- Other: [Please answer in this area]

Question 9: Do you often reflect on your teaching so that you can continuously improve your teaching model?

- [] Reflect frequently and have a clear direction for improvement
- [] There are times when there is reflection, but the improvement is not noticeable
- [] There is little reflection and the teaching method is more fixed
- [] Never reflect, teach step by step
- Other: [Please answer in this area]

Question 10: Have you participated in teacher training or academic exchange activities related to subject integration? (Single Choice)

- [] Attend regularly
- [] Less attended
- [] Never participated
- [] Willing to participate
- [] Reluctance to participate

Question 11: Have you tried to incorporate musical elements into your professional curriculum in early childhood care?

[] Used regularly, it works well

- [] Used occasionally, it has some effect
- [] Rarely used, the effect is average
- [] Haven't tried it
- Other: [Please answer in this area]

Question 12: What ways do you want to improve your comprehensive teaching ability?

- [] Attend professional training
- [] Observe the classes of outstanding teachers
- [] Exchange experiences with peers
- [] Read the literature

Other: [Please answer in this area]

Question 13: Do you pay attention to the development of students after graduation? (Single Choice).

[] Very concerned



- [] concern
- [] General
- [] Not following
- Other: [Please answer in this area]

Question 14: What do you think are the main challenges that students face after graduation? (Multiple Choice).

- [] Competition for employment is fierce
- [] The industry is developing and changing rapidly
- [] Expertise is not updated in a timely manner
- [] Lack of professionalism
- Other: [Please answer in this area]

Question 15: What do you think is the main focus of the current demand for early childhood care professionals? (Multiple Choice).

- [] Educational Philosophy and Skills
- [] Problem-solving ability with comprehensive knowledge
- [] Communication and coordination skills
- [] Ability to innovate
- Other: [Please answer in this area]

Question 16: How do you usually evaluate students' learning outcomes?

- [] Examination results are the main basis
- [] Usual performance is combined with test scores
- [] Pay attention to the evaluation of students' practical ability
- [] Adopt a diversified evaluation method
- Other: [Please answer in this area.]

Question 17: What do you think are the advantages and disadvantages of the current teaching model? (Please briefly describe) [Please answer in this area]

Question 18: What suggestions do you have for improving the current teaching model of the early childhood care profession? [Please answer in this area]

Question 19: What are your expectations for the future development of the early childhood care profession? [Please answer in this area]



*Question 20: How do you think vocational schools should better meet the needs of society and cultivate professionals in early childhood care?

Thank you for taking the time to fill out this questionnaire, your comments and suggestions are important to us. We promise to keep your personal information strictly confidential and will only use it for statistical analysis. Thank you again for your support and cooperation! Your suggestions will provide us with an important reference for improving the teaching model and improving the quality of education. I wish you all the best in your work and a happy life!



The second step of the research question is to develop a music-based teaching model for the integration of early childhood care disciplines in vocational schools Research Tools: Focus Group Interviews

The purpose of this focus group interview is to develop a music-based teaching model for the integration of early childhood care disciplines in vocational schools, and to collect opinions and suggestions on music integration teaching, with a view to building a more complete and innovative teaching model.

second: interview questions;

1. Have you learned about the methods of discipline integration?

2. Are you currently experimenting with the integration of music or related arts into the ECC curriculum?

 ${\bf 3}$. What impact do you think inclusive teaching has on the professional development of early childhood care students?

4. What musical elements do you think could be integrated into the ECCE curriculum?

5. How do you think you need to balance musical elements with conservation expertise when designing a music integration curriculum?

6What do you think can be done in the teaching methods of music integration in early childhood care?

7. Do you think the existing teaching assessment methods are suitable for music integration teaching?

8. What innovative ideas or suggestions do you have for the teaching objectives, teaching procedures, teaching strategies, teaching evaluation, etc. contained in the content of the teaching model?

9. What suggestions do you have for further optimizing and refining the integrated music teaching model? (Written in layers).

10. Teachers discuss issues spontaneously

III. Conclusion



Through this focus group interview, we hope to explore with teachers the optimization and innovation of the professional teaching model of early childhood care in vocational schools. We look forward to your valuable comments and suggestions, and contribute wisdom and strength to improve the quality of teaching and talent training. Please note that the above questions are only the preliminary design of the interview, and can be appropriately adjusted and supplemented according to the characteristics and needs of the interviewee. At the same time, we will fully respect the opinions and suggestions of each teacher, listen carefully to the voice of each teacher, and provide strong support for improving the teaching mode and improving the quality of talent training.





ข้อปฏิบัติสำหรับผู้วิจัย โครงการที่ผ่านการรับรองจริยธรรมการวิจัยในมนุษย์

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยศรีนครินทรวิโรฒ แจ้งให้ทราบเกี่ยวกับ หน้าที่และความรับผิดชอบของผู้วิจัยภายหลังจากโครงการวิจัย ได้ผ่านการรับรองจริยธรรมการวิจัย ในมนุษย์แล้ว ดังต่อไปนี้

- ผู้วิจัยจะต้องดำเนินการวิจัยตามขั้นตอนต่างๆที่ระบุไว้ในโครงร่างการวิจัยโดยเคร่งครัด โดยใช้เอกสาร คำชี้แจง และแบบยินยอม รวมถึงเอกสารอื่นๆ ที่ได้ผ่านการรับรองจากคณะกรรมการแล้วเท่านั้น
- 2 ผู้วิจัยที่มีหน้าที่รายงานต่อคณะกรรมการจริยธรรมฯ ตาม SOP บทที่ 6 เมื่อ
 - 2.1 มีการดำเนินงานวิจัยครบระยะเวลาหนึ่ง <u>ซึ่งจะต้องมีการรายงานความก้าวหน้าตามระยะเวลา</u> <u>ที่คณะกรรมการๆ กำหนดในเอกสารรับรอง</u> หรือเมื่อครบหนึ่งปีจากวันที่ระบุไว้ในเอกสารรับรอง จริยธรรมการวิจัยของโครงการ โดยใช้<u>แบบรายงานความก้าวหน้า (</u>SWUEC-Progress, AF/01-06/03.0)
 - 2.2 มีการดำเนินการวิจัยไม่ทันตามที่กำหนด โดยทั่วไปคณะกรรมการฯ จะให้การรับรองไม่เกิน 1 ปี ก่อนวันหมดอายุตามที่กำหนดไว้ในหนังสือรับรอง ผู้วิจัยจะต้องเสนอเอกสารขอต่ออายุการรับรอง โครงการวิจัย โดยใช้ <u>แบบเสนอขอต่อการรับรองโครงการ (SWUEC-Renew, AF/02-06/03.0)</u> ภายใน 30 วันก่อนหมดอายุ เพื่อให้ทางหน่วยฯ ได้มีระยะเวลาจัดเตรียมเอกสารเข้าประชุมก่อน โครงการวิจัยจะหมดอายุ ทั้งนี้หากท่านยังไม่ได้รับเอกสารรับรองการต่ออายุจากคณะกรรมการฯ จะไม่สามารถรับอาสาสมัครใหม่ระหว่างที่โครงการวิจัยหมดอายุได้ กรณีหน่วยฯ ไม่ได้รับการ ดิดต่อกลับจากผู้วิจัย ภายในระยะเวลา 6 เดือน นับจากวันที่โครงการวิจัยหมดอายุการรับรอง เอกสารโครงการวิจัยจะถูกทำลาย 3 ปี นับจากวันที่หมดอายุการรับรอง
 - 2.3 มีความจำเป็นในการปรับปรุงโครงการวิจัย (Protocol Amendment) หรือ มีการเปลี่ยนแปลง หัวหน้า โครงการวิจัย/เพิ่มเติมผู้ร่วมวิจัย ผู้วิจัยจะต้องเสนอการปรับปรุงเป็น<u>แบบรายงานขอการ</u> <u>ปรับปรุงโครงการวิจัย</u> (SWUEC-Amend, AF/03-06/03.0) ตามที่ได้กำหนดไว้ โดยอ้างอิงรหัส โครงการตามที่ได้รับการรับรอง โดยต้องระบุให้ชัดเจนว่า มีการเปลี่ยนแปลงอะไร อย่างไร และ เหตุผลที่ต้องมีการเปลี่ยนแปลง ทั้งนี้ในกรณีการเปลี่ยนแปลงหัวหน้าโครงการวิจัย/เพิ่มเติมผู้ร่วม วิจัยคนใหม่ ให้แนบประวัติมาด้วย
 - 2.4 มีอาการไม่พึงประสงค์รุนแรงจากการดำเนินโครงการวิจัย (Serious Adverse Events) เกิดขึ้นแก่ อาสาสมัคร ผู้วิจัยจะต้องทำเอกสารแจ้งคณะกรรมการฯ ภายใน 7 วันปฏิทิน <u>และหากอาการไม่พึง</u> ประสงค์รุนแรงนั้น เป็นเหตุให้อาสาสมัครถึงแก่ชีวิต ต้องแจ้งภายใน 24 ชั่วโมง (โดยทางจดหมาย)

<u>จดหมายอิเล็กทรอนิกส์ หรือโทรสาร)</u> หลังจากผู้วิจัยทราบเหตุการณ์ โดยใช้**แบบรายงาน** <u>เหตุการณ์ไม่พึงประสงค์สำหรับอาสาสมัครในสถาบัน</u> (SWUEC-SAE-Local, AF/04-06/03.0) และแนบรูปแบบเอกสารรายงานเป็นสำเนา SAE Report Form ที่กำหนดโดยผู้สนับสนุนทุนวิจัย หากไม่มีแบบรายงาน จากผู้สนับสนุนทุนวิจัยให้ใช้แบบรายงานของ SWUEC ตามที่กำหนด อย่างเดียว กรณีเป็นรายงานเหตุการณ์ไม่พึงประสงค์ที่เกิดแก่อาสาสมัครนอกสถาบัน ซึ่งบริษัท ผู้สนับสนุนส่งให้ผู้วิจัย ให้ใช้<u>แบบรายงานเหตุการณ์ไม่พึงประสงค์ที่เกิดแก่อาสาสมัคร</u> <u>นอกสถาบัน</u> (SWUEC-SAE-External, AF/05-06/03.0) แนบกับแบบรายงานเหตุการณ์ไม่พึง ประสงค์ที่บริษัทผู้สนับสนุน

- 2.5 มีการดำเนินการใดๆ ที่ไม่ถูกต้องตามระเบียบการวิจัยที่กำหนดไว้ ผู้วิจัยจะต้องรายงาน ให้คณะกรรมการฯรับทราบภายใน 7 วันปฏิทิน หลังจากที่ตรวจพบ โดยใช้แบบ<u>รายงานการ</u> <u>ดำเนินงานวิจัยที่เบี่ยงเบน</u> (SWUEC-deviation, AF/06-06/03.0)
- 2.6 การวิจัยเสร็จสิ้นลงหรือยุติการวิจัยด้วยใดๆ ให้ผู้วิจัยมีหนังสือแจ้งปิดโครงการวิจัยนั้นพร้อมผลการ ดำเนินการวิจัยให้คณะกรรมการฯ ทราบ ตามแบบ<u>รายงานแจ้งการปิดโครงการวิจัย</u> (SWUEC-Close, AF/07-06/03.0) ทั้งนี้โครงการที่รายงานแจ้งปิดและได้รับการพิจารณา โดย คณะกรรมการฯ แล้ว ถือว่าเป็นการสิ้นสุด ไม่สามารถขอยกเลิกการแจ้งปิดได้อีก
- 3 คณะกรรมการฯ จะมีการสุ่มเข้าตรวจเยี่ยมโครงการวิจัยเพื่อตรวจดูความเรียบร้อยของการดำเนินงาน และรับฟัง และให้คำปรึกษาข้อปัญหาที่อาจมีในระหว่างการดำเนินการวิจัย โดยคณะกรรมการฯ จะมี หนังสือแจ้งให้ทราบ ล่วงหน้าเป็นเวลา 2 สัปดาห์ ผลการตรวจเยี่ยมโครงการวิจัยจะแจ้งเพื่อทราบ ในที่ประชุมคณะกรรมการฯ และจะแจ้งผลการพิจารณาให้ผู้วิจัยได้ทราบ และอาจมีข้อเสนอแนะให้ปฏิบัติ ต่อไป



AF20-03-03.0 May, 2023

Certificate of Ethical Committee Approval

This is to certify that:

Protocol Title: THE DEVELOPMENT OF AN INTEGRATED MODEL OF TEACHING USING MUSIC AS A BASE FOR EARLY CHILDHOOD CARE PROGRAMS. Principal investigator: Ms.Qianli Liu

Institution: Graduate School of Srinakharinwirot University

Protocol code: SWUEC-672423

Documents approved:

- 1. Submission form
- 2. Full research proposal
- 3. Participant information sheet and consent form
- 4. Questionnaire/data collection form
- version no. 2 date 16 September 2024 version no. 1 date 25 June 2024 version no. 1 date 25 June 2024 version no. 1 date 25 June 2024

5. Investigator's biography

have been reviewed and approved by the Human Research Ethics Committee of Srinakharinwirot University based on Declaration of Helsinki, Belmont Report, International Conference on Harmonization in Good Clinical Practice (ICH-GCP), International Guidelines for Human Research, along with laws and regulations of Thailand. Thus, the approval for conducting the study is granted.

Date of approval: 25/09/2024 Date of expiration: 24/09/2025

Sittery. Watterny.

(Associate Professor Sittipong Wattananonsakul, Ph.D.) Chairman, Social Science and Behavioral Science Research Sub-Committee of Srinakharinwirot University (Panel 2)

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