



INSTRUCTIONAL DESIGN USING EXPERIENTIAL LEARNING THEORY TO ENHANCE ART TEACHING COMPETENCY OF UNDERGRADUATE STUDENTS IN EARLY CHILDHOOD EDUCATION PROGRAM IN CHINA

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Abstract

The purposes of this research were (1) to study the current situation of Art teaching competency of students majoring in Early Childhood Education at Lishui University, and (2) to develop an instructional model using experiential learning theory to enhance Art teaching competency of undergraduate students in Early Childhood Education Program. There were two phases to this investigation. A qualitative research method was used in Phase 1 to analyze various data sources. Additionally, it included semi-structured interviews with three participant groups: five Early Childhood Art teachers with at least five years of experience in their field; ten undergraduate students who had finished the course "Art"; and five experts with at least five years of curriculum and instruction experience were chosen through purposive sampling. Based on the findings from Phase 1, the researcher developed an instructional model and submitted it to five experts in early childhood education and art instruction to evaluate its content validity. A 5-point rating scale was used to assess the alignment of the model with the specified objectives. The results of the study were as follows:

1) Phase 1 found that current competencies did not adequately meet the practical requirements for fostering students' artistic development in early childhood education. Therefore, improving the current model required the development of more effective educational models. The development of this model should be directed by related concepts and components that support a logical learning experience.

2) Seven essential elements comprised the instructional model developed in Phase 2: 1) principles, 2) goals, 3) instruction, 4) content, 5) strategy, 6) learning environment, and 7) evaluation. Five experts' evaluations revealed that the model's IOC value was 1.00 and its overall value was 4.45. This demonstrated how well the model worked to enhance the effectiveness of ART lessons in early childhood education.

Keywords: Experiential learning, Instructional design, Art teaching competency, Early Childhood Education



Introduction

With a national goal of increasing teacher registration information and defining expert expectations, China has increasingly emphasized early childhood education over the past decade. Political activities such as Medium and Long-Term Education Plans 2010 for more organized strategies for workforce development and teacher preparation. Regardless of this development, difficulties remain in the third phase of implementation, especially in metropolitan and rural environments. Among them are inadequate arts training, outdated curriculum content, lack of qualified art teachers, and limited access to appropriate resources (Feng & Sodhibhan, 2024).

Lack of support and resources makes it difficult for teachers to combine theory with practical use in the classroom. This indicates their lack of trust in the creation of creative activities, and the fact that artistic projects have little knowledge of aesthetic ideas and challenges tailored to the children's developmental needs. Bilir-Seyhan and Ocak-Karabay (2018) expressed comparable concerns as they highlighted the need for practical training and the need for various educational strategies during teacher preparation to support development-friendly art formation. Active participation, practical experience, and reflexive thinking are all highlighted by the model as they help to transfer important knowledge.

According to Mechouat (2024), Experiential Learning Theory (ELT), when aligned with a comprehensive teacher education model, significantly supports the development of professional competence by integrating theoretical learning with authentic, hands-on teaching experiences. In early childhood education, this approach enhances the quality of art instruction, fosters critical thinking, and encourages student-centered and reflective teaching practices that are developmentally appropriate.

The results should provide useful directions for leading the development of arts education and creating competent and motivated strategies in modern early childhood lessons.

Research objectives

1. To study the current state of Art teaching competency of students majoring in Early Childhood Education at Lishui University.
2. To develop an instructional model using experiential learning theory to enhance Art teaching competency of undergraduate students in Early Childhood Education Program.



Literature review

Experiential Learning Theory and the Educational Applications

Experiential Learning Theory (ELT), which was generated by David Kolb and is founded on the theories of educational theorists consisting of Jean Piaget, Carl Rogers, and John Dewey, points out that students' active engagement in real-world experiences, reflective thinking, conceptualization, and application in real-world settings are the key components of learning that are meaningful. A learning cycle made up of four stages was proposed by Kolb (1984) "1) concrete experience, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation."

ELT is especially useful in the educational contexts for fostering professional competencies, particularly in practice-based programs like early childhood art education. Students enrolled in these programs must successfully combine their theoretical comprehension with real-world application. According to Fewster-Thuente and Batteson (2018), ELT cultivates deep comprehension, critical thinking, creativity, and instructional competence all of which are critical for educators in the twenty-first century.

Instructional Design for Teacher Education

A methodical approach to planning, organizing, and executing successful teaching and learning activities is known as instructional design. An important component of improving the caliber of teacher education, it is driven by learning objectives, learner requirements, as well as the circumstances of both teachers and students (Raza et al., 2020). Learner analysis, content analysis, reflective thinking, and assessment techniques that support the desired education outcomes are all definite and organized components of effective instructional design.

Art Teaching Competency in Early Childhood Education

In Early Childhood Education, art teaching competency can be divided into a number of important areas, including practical skills, artistic knowledge, and the capacity to create learning activities that suit for young children's developmental stages. Early childhood educators should be capable to recognize and develop children's artistic ability, especially in the area of visual arts expression, according to Đorđević (2019). Competencies like creativity, assessment, and knowledge of appropriate evaluation instruments are all included in this.

According to the study, many teachers still lack a thorough understanding of systematic assessment techniques and resources, despite some teachers expressing confidence in their capacity to identify children's artistic talent. Additionally, some instructors stated that they were not adequately prepared in this area by their



undergraduate degrees. According to the study, curricula for teacher education ought to be updated to incorporate specialized instruction and skills for working with children who are artistically gifted in both identification and advancement. Enhancing the caliber of early childhood educators and successfully fostering children's potential depend on these developments.

The State of Art Education in Early Childhood Programs in China

Early Childhood Education has drawn more attention in China, especially in relation to raising curriculum standards and teacher quality. However, Tao and Kamarudin (2023) state that there are many problems to overcome in early childhood art education, particularly in third-tier cities. These include inadequate instructional hours devoted to art, unstructured curricula, antiquated teaching models, and a shortage of trained staff with specialized knowledge and abilities in the arts. Furthermore, many teachers lack the confidence and skills necessary to develop children's artistic potential because they have not received systematic training in art education.

Integrating learner-centered learning approaches like Experiential Learning Theory (ELT) could provide a viable way to overcome these obstacles. ELT gives student teachers the chance to practice teaching, think back on their experiences, and connect theory to practical classroom applications. Deeper understanding and the long-term growth of art teaching competency in Early Childhood Education are fostered by such experiential engagement.

Conceptual framework

The purposes of this study were to assess the current art teaching competency of students majoring in Early Childhood Education at Lishui University, and to develop an instructional model using Experiential Learning Theory to enhance the art teaching competency of undergraduate students in Early Childhood Education Programs. As seen in Figure 1, a conceptual framework was created to show the connections between the key components of the study to ensure research clarity.

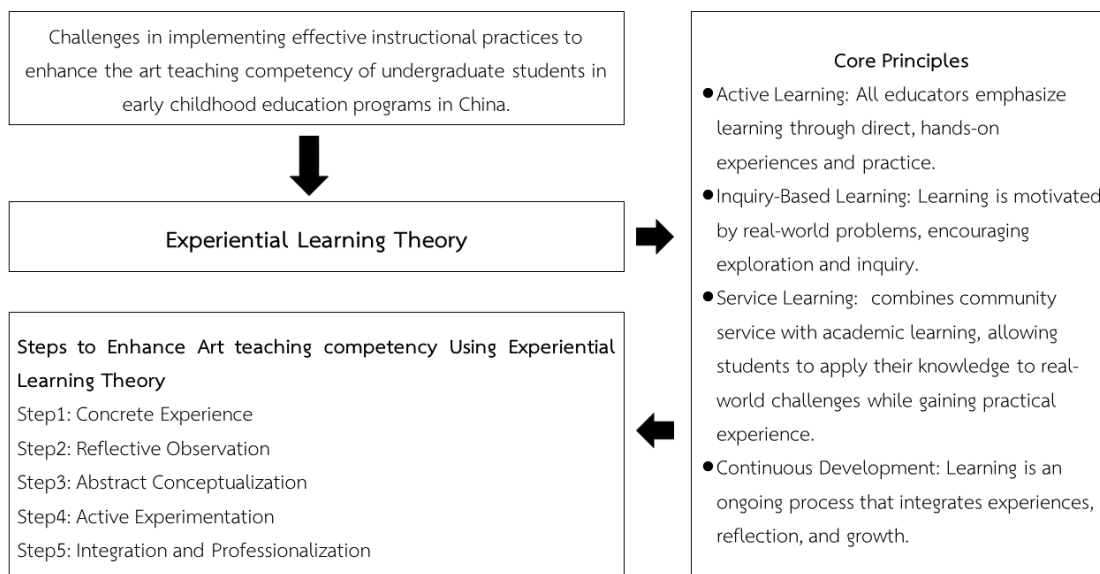


Figure 1 Conceptual framework

Research methodology

Phase 1: Model Development

Target group: Ten students who had completed Preschool Art II in the most recent semester, five curriculum specialists, and five Early Childhood Education art teachers made up the participants in this phase. Purposive sampling was used to make sure that participants who were knowledgeable and pertinent were chosen.

Research instrument: A semi-structured interview guide was part of the research instrument, which was created after a review of the literature on art education, experiential learning theory, and early childhood teaching competency. 5 experts evaluated the interview's structure and content, and the Index of IOC was used to confirm the content validity in accordance with Rovinelli and Hambleton's (1977) standards.

Data collection: The researcher used a qualitative interview method, beginning with an introduction and then gathering feedback on the current situation, challenges, and needs for developing an instructional model to enhance art teaching competency.

Data analysis: Thematic content analysis was used to summarize key ideas and inform the design of a preliminary instructional model.

Phase 2: Model Validation

Target group: Two curriculum and instruction specialists, two early childhood art education professionals, and one expert in educational assessment and evaluation



made up the target group, which included five doctorate-holding experts. Every expert had at least five years of work experience.

Research instrument: The primary instrument used was the Instructional Model Feasibility Assessment Form, which was created using the instructional model's structural and theoretical components. In order to verify that the items on the form were in line with the goals of the study, five experts used IOC to examine and confirm it.

Data collection: Two steps were taken in order to collect data: (1) an expert review of the instructional model's appropriateness and feasibility; and (2) a non-sample try-out teaching session with 30 Early Childhood Education students, 10 of whom performed well academically, 10 of whom performed averagely, and 10 of whom performed poorly.

Data analysis: In order to verify the model's content validity and instructional appropriateness, the IOC for each item was calculated as part of the quantitative analysis, while expert feedback was examined qualitatively. The instructional model was revised and improved as a result of the data.

Results

Phase 1: Model Development

Summary of the Literature Review and the Current State of Art Teaching Competency of Early Childhood Education Students at Lishui University

A review of the literature indicated that Experiential Learning Theory (ELT) is well-suited for improving art instruction in early childhood education, emphasizing the cycle of experience, reflection, conceptualization, and active experimentation an approach that aligns with how pre-service teachers learn best.

Interviews with students, instructors, and experts revealed key issues: (1) the curriculum focuses on traditional art forms with limited integration of child development theories, (2) teaching methods prioritize imitation over creativity, (3) some instructors lack qualifications, and (4) current assessments emphasize product outcomes while neglecting creative thinking and instructional skills. Students grasped basic artistic concepts but had few opportunities for practical application and critical reflection, making it difficult to connect theory with real classroom contexts.

These findings suggest the current program does not adequately prepare students to become early childhood art educators. Therefore, the curriculum should be revised based on Experiential Learning Theory and include evaluation tools that assess planning, instructional skills, and creative expression.



Phase 2: Model validation

At the time, researchers sought to improve the art time skills of the early childhood education program at Lishui University with a revised educational model based on ELT. The structured assessment form created coverage of seven key areas, goals, educational steps, content, support strategies, learning environments, and assessment systems. Five experts were asked to assess the effectiveness and relevance of the model.

Expert Evaluation Results:

The expert evaluation of the education model showed very high to very high scores on all factors, and therefore validated its general adequacy and effectiveness. It fits the ELT cycle (3.60), but the principle of the principle was 4.40 (S.D. = 0.57), clarity (4.60) and linguistic simplicity (4.80), and was rated as high. The average target is 4.60 (S.D. = 0.56), indicating that it is suitable for the desired skill (4.80), but is a more powerful integration of ELT components such as "context position" and "reflection management" (4.40). Rating 4.44 (S.D. = 0.64), teaching steps successfully combined theory and practice. However, the reflective observation step was mostly evaluated (3.40), and improvements to the reflective tool were sought. Due to recommendations on interdisciplinary enrichment, the content component was 4.13 (S.D. = 0.59), praised for the integration of theory practice (4.40), but criticized for lack of creativity (3.40). They needed more flexibility and a separate feedback system (4.40), but support strategies were well evaluated, particularly with learning materials and technical support (4.80) (4.60, S.D. = 0.56). In the digital environment, the learning environment averaged 4.53 (S.D. = 0.67). It can improve physical and emotional components (4.40). Finally, the rating was received 4.47 (S.D. = 0.68). Although it is a good technique (4.60), experts will give advice involving more dynamic and multidimensional instruments (4.20) to more closely assess the student's educational skills.

Improvements Based on Expert Feedback:

1. Match Instruction to Experiential Learning Theory (ELT). Especially regarding the cycle of experience, reflection, conceptualization, and application, hone the instructional model to more accurately represent the ideas of experiential learning. This means designing environments for students to participate in significant reflection and connecting their experiences straight to useful application. To assist this process, tools including peer feedback exercises, self-assessments, and reflection journals should be combined.

2. Revitalize the curriculum by including innovative and multidisciplinary ideas, using local cultural resources to enhance material. Use interactive technologies including videos, augmented and virtual reality (AR/VR), and simulated teaching environments to



create dynamic learning experiences. These tools can meet the different requirements of students and encourage more active participation.

3. Improve the Assessment and Learning Environment: Rework learning environments to foster student creativity and cooperation. Include mentor comments and individualized assistance as well as both formative and summative evaluations. This strategy guarantees that students get the required direction to help their growth and professional development.

Discussion

Phase 1: Model Development

This paper focuses on Lishui University as a central case, identifying considerable mistakes in university education for early childhood education majors. This curriculum was developed to meet the requirements of young children and highlights technical implementation and final product. Lessons are primarily theoretically limited to demonstrations. Therefore, this approach is not suitable for classroom teaching. Creating a great lesson requires more than just technical knowledge. It also requires opportunities for creative discovery, practical use, and intimate relationships with actual educational attitudes. Further issues include inadequate resource access, uncooperative kindergarten reviews, and insufficient assessment techniques (Lodewyckx, 2025; Heiman, 2025). These issues reflect priorities for implementing NAEYC (2016) working on interdisciplinary partnerships to improve teacher preparation. Shelton et al. (2022) emphasize that communities and educational institutions must work together when it is necessary to design response curricula and close the gap between theory and practice.

Phase 2: Model validation

This article highlights integration and expert growth and presents educational structures, including concrete stages of experience, reflective observation, abstract conceptualization, and active experiments based on Kolb's experiential learning cycle. Building on previous research, this model emphasizes a direct investigation of artistic practice, thus facilitating critical thinking and practical application of theoretical ideas in the classroom (Baroody, 2017; Mazerolle et al., 2015; Akella, 2010). The final stage combines creative thinking, ethical awareness and pedagogical knowledge to help students prepare for their professional roles in education (Daichendt, 2016). This approach is particularly relevant to internship-based teacher training and helps bridge the gap between theoretical knowledge and application in early childhood arts education. Other sectors have found similar results. Chen et al. (2022) demonstrated

the use of Kolb's framework in nursing training to improve practical skills, and Bower (2014) revealed how experiencing learning builds wise connections between abstract concepts and actual activities.

Body of knowledge

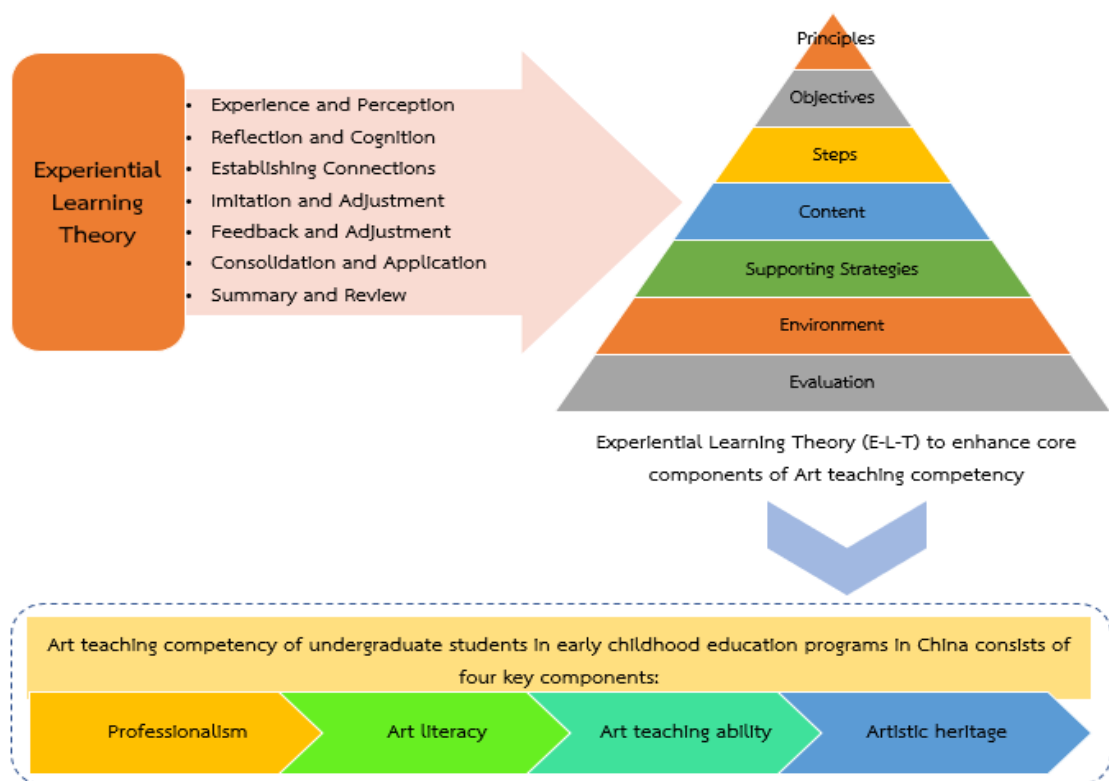


Figure 2 The concept for developing the instructional model

To improve students' art lessons in early childhood education programs in China, researchers have developed an educational model based on Experimental Learning Theory (ELT). This model highlights four basic areas: artistic heritage, professionalism, arts education skills, and general artistic competence. With the concept of ELT, practical participation, critical reflection, and the use of learning in a practical environment, models need to combine theoretical knowledge with classroom practice. The seven key components are value leads, learning goals, education strategies, core materials, support systems, learning environments, and evaluation techniques. Each element is intended to not only understand the ideas of art education to students, but also to effectively use them in early childhood settings.



Conclusion

Results of the current situation of Art teaching competency of students from the Early Childhood Education program at Lishui University

Interviews with students showed that they understood the idea of art but tried to apply this knowledge to a real classroom environment. Many recurring issues include poor management of education management, trust in recurring education strategies, and unclear criteria for interdisciplinary learning and interactive approaches. Student commitment and student effectiveness appeared to be hampered by an apparent lack of trust in educational skills. Many students identified current teaching models as contributing factors and did not see any obvious goals. Technical implementations were often based on outdated materials that did not represent modern teaching methods. The interdisciplinary material emphasizes the importance of a more flexible and clearer education system that relates to the actual classroom situation and supports new teachers. To develop their potential, students should build confidence through practical activities such as lesson planning, refining assessment strategies, integrating digital tools, and learning from experts. These approaches have academic benefits by promoting deep learning and enhancing effective teaching skills in real-world contexts.

Results of developing an instructional model using experiential learning theory to enhance Art teaching competency of undergraduate students in Early Childhood Education programs

Based on experiential learning theory, the instructional model intended to raise undergraduate students' competency in teaching art within Early Childhood Education programs consists of seven basic components: The seven components of the instructional model meant to enhance undergraduate students' competency in teaching art within Early Childhood Education programs, grounded in experiential learning theory, are: (1) guiding principles, (2) learning objectives, (3) instructional procedures, (4) content areas, (5) support strategies, (6) learning environment, and (7) assessment methods. Originating from ELT, the model also outlines five instructional procedures: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, (4) active experimentation, and (5) integration with professional practice. Using the Index of Item-Objective Congruence (IOC), five professionals conducted expert assessment of the model's consistency with project goals. Every one of the seven components scored 1.00, implying universal agreement on their relevance and suitability with the instructional goals.



Suggestion

The recommendations are given as follows depending on the study result

1. Suggestion for application

This article shows the efforts of Chinese artists who are better known than children. Including ELT in educational strategies provides very useful instruments. ELT-based models can support a more engaging and effective learning setting in the arts.

2. Suggestion for future research

To ensure that data recording methods are appropriate and thorough to achieve important results, researchers should consider the special needs and difficulties of students in the environments of ELT.

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