INSTRUCTIONAL DESIGN USING JOHN DEWEY'S THEORY AND SITUATIONAL LEARNING THEORY TO ENHANCE THE LEARNING INTEREST AND ACHIEVEMENT OF ART STUDENTS

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Abstract

The purposes of this research were: 1) to study the current state and problems in learning interest and achievement of art students; 2) to draft the instructional model using John Dewey's theory and situational learning theory to enhance learning interest and achievement of art students. This research employed a comprehensive mixed-method approach. The research instruments included a semi-structured interview, questionnaire, achievement test, and evaluation form for the appropriateness of the instructional model. All instruments were validated by five qualified experts with the IOC score ranging between 0.60–1.00. The research results showed as follows:

1. The art students showed a moderate to high level of interest in their learning, especially when the lessons included real-life activities. However, their ability to stay engaged and apply what they learned over time was limited. The test results showed that they had a good grasp of basic knowledge but struggled with more abstract materials, which suggests that more interactive and context-related methods would be beneficial.

2. The instructional model was validated by five experts and received a perfect IOC score of 1.00. It also had a high level of appropriateness, with a mean of 4.87 and a standard deviation of 0.3. It comprises of six components: introduction, theoretical foundation, guiding principles, objectives, instructional procedures, and expected outcomes. The instructional procedures include seven steps: introducing objectives and tasks, creating real-life situations, formulating problem, solving problems, concluding, validating conclusion, and evaluating. This instructional model boosts student engagement and success by offering hands-on, meaningful, and personalized learning opportunities.

Keywords: John Dewey's Theory, Situational Learning Theory, Learning Interest, Learning Achievement

Introduction

In today's Chinese education system, art students encounter specific difficulties that affect both their learning interest and academic achievement. Even though China has a history of artistic expression, many institutions place little priority on teaching modern art, and students are frequently perceived as lacking intellectual competence. Structural factors like the high cost of art education, the brittle competition in the Yikao (college art entrance exam), and the lack of art in the general curriculum all help create this stigma (Ma, 2022). Recent studies indicate that arts colleges account for only about 3.8% of all Chinese universities, while Yikao candidates represent around 10% of all high school seniors, with acceptance rates in some arts majors as low as 0.4%, which intensifies pressure and inequity for art-track students (Ma, 2022).

To address the mentioned challenges, this research creates an instructional model that is based on John Dewey's theory and situated learning theory, which was developed by Lave and Wenger. Dewey (1916) stated that education should focus on the child, be based on real-life experiences, and create learning environments that are democratic and encourage reflection. As explained by Sikandar (2015), Dewey believed that students learn most effectively when they are actively involved in solving real-life problems that connect with their personal interests and the social environment they are part of. Similarly, situated learning theory suggests that real learning happens in real-life situations through group activities, not just in classroom settings focused on tests and memorization (Besar, 2018).

According to the existing problems and difficulties in art education in China, the researchers are interested in carrying out this study. The goal is to look into the current state and problems related to students' interest in learning and learning achievement in the arts. However, most existing studies have either focused on policy reforms or on aesthetic education courses in specific institutions, and very few have simultaneously examined art students' learning interest and achievement while also developing and validating an instructional model that integrates John Dewey's theory and situated learning theory in the Chinese context. In addition, we also aim to create an instructional model based on John Dewey's theory and situational learning theory to improve these areas. This model is expected to provide more engaging and meaningful learning experiences, allowing students to participate actively in tasks that connect with real-life contexts and support their academic growth.

Research objectives

1. To study the current state and problems in learning interest and achievement of art students.

2. To draft the instructional model using John Dewey's theory and situational learning theory to enhance learning interest and achievement of art students.

Literature review

John Dewey's Theory of Experiential Learning

John Dewey's focus on real-life experiences has made him a key figure in the growth of experiential learning. He believed that the most effective learning happens when students tackle real-world problems, reflect on what they have learned, and keep learning through an active, ongoing process. Learning through experience and thinking about what students have learned should be at the center of planning what they study. Students gain knowledge by asking questions, trying things out, and solving real-life problems in meaningful situations. This "Pattern of Inquiry" helps learners construct knowledge by doing, reflecting on what they did, and forming general ideas from their experiences. Dewey also stressed continuity and interaction: each learning experience connects to past ones, and learning occurs through a mix of inner factors (thoughts and feelings) and outer factors (social interactions and surroundings). His view that education is an agent of social reform has also influenced early educational thinkers in China and the development of modern Chinese education (Liu, 2023). These ideas continue to shape curriculum design today, especially in art education, where students learn by doing and reflecting on their work, developing both skills and personal abilities (Seaman, 2017).

Situational Learning Theory

Situated learning theory, by Jean Lave and Etienne Wenger, suggests that learning works best when it happens through real involvement in social and cultural settings. Instead of thinking of knowledge as something that is passed down, it is understood as being built together through shared experiences and working together in groups that have common goals and practices. After first observing and listening, students gradually begin to join in by discussing and participating in activities that connect to daily life. This approach works especially well in subjects like art, where learning focusses on creativity and cultural expression (Besar, 2018). Recent research

indicates that situational learning theory is commonly used in professional education, particularly for grasping social concepts and creating interventions that are rooted in specific contexts. Some applications of the theory have shown mixed results, which reveals that teachers need to use it clearly and purposeful. For art education, situational learning theory offers a strong concept to encourage thinking, group involvement, and hand-on learning (O'Brien & Battista, 2020).

Integration of Dewey's Theory and Situational Learning in Art Education

Integrating John Dewey's experiential learning theory with Situated Learning Theory offers a powerful foundation for designing instructional models in art education. Dewey emphasized learning through doing, reflection, and interaction with real-life environments, where education becomes a process of growth rooted in personal experience and democratic participation (Allison & Seaman, 2017). Likewise, Situated Learning Theory focuses on context, community, and authentic participation, where learners build knowledge by engaging in real-world practices within communities of practice (Besar, 2018; O'Brien & Battista, 2020). When combined, these frameworks support student-centered learning that encourages creativity, collaboration, and critical thinking. In art education, this integration allows students to move beyond rote technique, engaging in artistic tasks that are culturally meaningful, collaborative, and reflective. Learners co-construct understanding with peers and mentors, making learning personally relevant and socially grounded. Such an approach mirrors authentic artistic practice and enhances both cognitive and emotional growth, especially in contexts where students' identities and cultural expression play a central role.
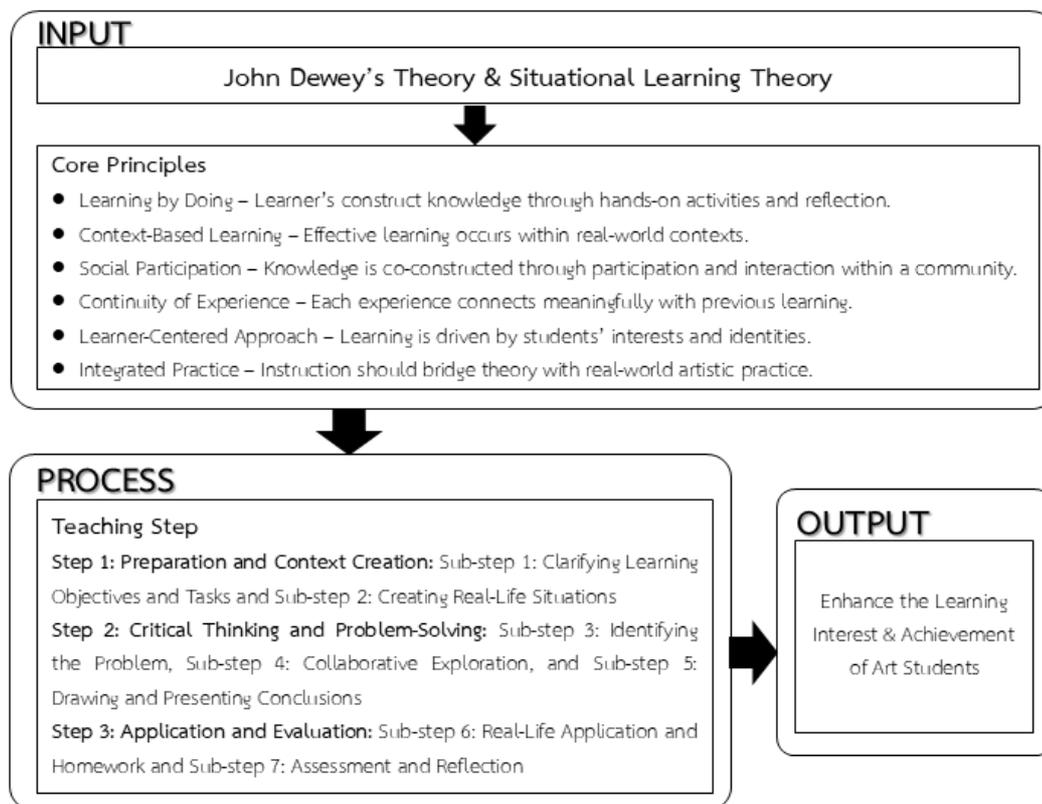
Conceptual framework

INPUT

John Dewey's Theory & Situational Learning Theory

Core Principles
- Learning by Doing – Learner's construct knowledge through hands-on activities and reflection.
- Context-Based Learning – Effective learning occurs within real-world contexts.
- Social Participation – Knowledge is co-constructed through participation and interaction within a community.
- Continuity of Experience – Each experience connects meaningfully with previous learning.
- Learner-Centered Approach – Learning is driven by students' interests and identities.
- Integrated Practice – Instruction should bridge theory with real-world artistic practice.

PROCESS

Teaching Step

Step 1: Preparation and Context Creation: Sub-step 1: Clarifying Learning Objectives and Tasks and Sub-step 2: Creating Real-Life Situations

Step 2: Critical Thinking and Problem-Solving: Sub-step 3: Identifying the Problem, Sub-step 4: Collaborative Exploration, and Sub-step 5: Drawing and Presenting Conclusions

Step 3: Application and Evaluation: Sub-step 6: Real-Life Application and Homework and Sub-step 7: Assessment and Reflection

OUTPUT

Enhance the Learning Interest & Achievement of Art Students

Figure 1 Conceptual framework

Research methodology

Informants: The informants consisted of five teachers who were purposively selected based on their qualifications and a minimum of five years of experience teaching the course "Ideology, Morality, and the Rule of Law." All of them were currently responsible for teaching this course at the undergraduate level. They were included for in-depth interviews. Additionally, 276 students from the Faculty of Fine and Applied Arts who had previously taken the course were selected from a total of 1,000 students using simple random sampling. These students were involved in both an opinion survey and an achievement test aimed at identifying weaknesses in their test performance.

Instruments: This research, which adopted an exploratory sequential mixed-methods design, used a semi-structured interview form for teachers. The experts checked the content to ensure its validity, and the items were analyzed using the Index of Item-Objective Congruence (IOC), which ranged between 0.80–1.00.

The questionnaire for students was also examined in the same way, and all items showed an IOC score of 1.00. In addition, an achievement test consisting of 23 items (9 multiple-choice, 9 true/false, 3 short-answer, and 2 discussion questions) was used to find out what types of questions students usually found difficult; the IOC scores from this test fell between 0.60–1.00 and it showed excellent internal consistency (Cronbach's alpha = 0.96). Furthermore, an evaluation form for the instructional model using John Dewey's theory and situational learning theory to enhance learning interest and achievement for art students was reviewed by five experts, and all the items on the form had IOC scores ranging between 0.80–1.00.

Data Collection:

1. The researchers interviewed teachers of the course "Ideology, Morality, and the Rule of Law" from October 5 to 10, 2024.

2. The researchers gave out questionnaires to 276 students from the Faculty of Fine and Applied Arts between November 11 and 31, 2024.

3. The researchers administered achievement tests to the same 276 students between November 21 and 25, 2024.

4. The researchers analyzed the qualitative and quantitative data that had been collected between November 26 and 30, 2024.

5. The researcher created the instructional model using the information gathered from interviews, questionnaires, and achievement tests between December 1 and 5, 2024.

6. The experts assessed the instructional model using the IOC method between December 6 and 10, 2024.

7. The researchers revised the instructional model according to the experts' recommendations between December 26 and 30, 2024.

Data Analysis: The data gathered from interviews with five teachers was examined through content analysis to find out the main topics, current problems, and difficulties connected to students' interest in learning and their academic performance. The findings helped shape the instructional model for the next phase of the research. The researchers used descriptive statistics, such as mean and standard deviation, to analyze the results from the achievement test and the learning interest questionnaire. This helped us identify the common areas where students had difficulty and understand their general level of interest in learning.

Results

1. Studying the Current State and Problems in the Learning Interest and Achievement of Art Students

Results from teachers' interviews

Five experienced teachers were interviewed, and the results showed that the biggest difficulty in teaching is helping students relate the abstract material to their everyday experiences. Teachers used role-playing games, interactive activities, and real-world examples to increase student interest and comprehension. At first, students showed only average interest, but the participatory methods helped increased their motivation. Teachers assessed how well students were learning through tests and projects, adjusted their teaching approaches based feedback from students and others, and suggested moving away from long lectures. They recommended adding more hands-on activities, student-led discussions, and better training for teachers.

Results from the students' questionnaire

From the responses of 276 art students who had taken the course "Ideology, Morality, and the Rule of Law," the results indicated that students generally showed a moderate to high level of learning interest. Approximately 35–40% of the students strongly agreed that interactive teaching strategies such as real-life case studies, group discussions, and situational activities helped increase their engagement and understanding of the subject matter.

During class, students were active, but only 30 to 35% said they remained interested after class, such as by thinking about what they learned or discussing it with friends. Fewer students took the initiative to learn more on their own or use what they learned in real-life situations. This means that more encouragement and support are necessary to keep people interested and involved after class ends.

Topics that attracted student interest included socialist core values, ethics in modern society, and legal rights and responsibilities. Key student recommendations for improving the course included incorporating more real-life examples, promoting student participation, using multimedia tools like videos and role-playing, and offering activities that connect with social issues or community involvement.

These results suggest that interactive and contextualized teaching methods are effective in increasing students' situational interest, but further strategies are needed to develop deeper and long-term engagement with the content.

Results from the students' test

From the test results of 276 art students using the Class of 2024 Ethics and Rule of Law exam, most students (35.14%) scored in the moderate range (70–79),

while 25% passed with lower scores (60–69), and 10.14% failed. Around 30% achieved good to excellent scores (80–100). Students performed well on questions related to basic moral concepts and socialist values (Q1, Q3, Q8), but struggled with abstract and philosophical topics (Q5, Q7, Q9). These lower scores that students are having trouble linking what they learn in class to real-life situations, and they also point out the limits of old teaching methods. The findings suggest that there is a need for more interesting and relevant teaching strategies that help students understand better.

2. Drafting the Instructional Model Using John Dewey's Theory and Situational Learning Theory to Enhance the Learning Interest and Achievement of Art Students

The researchers used the suggestions from informants during the early stage to shape the instructional model, which was designed based on John Dewey's theory and situational learning theory to enhance the learning interest and achievement of art students. The instructional model is made up for six components: first, introduction of the model; second, theoretical foundation; third, guiding principles; fourth, objectives; fifth, instructional procedures; and sixth, expected learning outcomes. The instructional procedures includes seven steps: introducing objectives and tasks, creating real-life situations, formulating problem, solving problems, concluding, validating conclusion, and evaluating.

The Index of Item-Objective Congruence (IOC) for the instruction model, as assessed by five experts, showed a score of 1.00 for all six components. The model was considered very appropriate, with an average rating of 4.87 and a standard deviation of 0.3, showing that experts largely agreed on its suitability. The theoretical foundations got the highest score of 5.00, then came the model's guiding principles with 4.90, followed by the instructional procedures at 4.94, and expected learning outcomes connected to student interest and engagement also scored 5.00.

Experts also gave recommendations for improvement, which include first, using case studies and role-playing exercises to help students better understand moral and legal ideas in real-life situations; second, offering teacher training to help them become more effective facilitators, and to improve their ability to manage the classroom and use student-centered teaching methods; third, broadening how students are assessed by including peer feedback, portfolio evaluations, and project-based assessments that reflect real-world scenarios; and fourth, adjusting how long each part of a lesson lasts so it matches how well students can learn, especially during parts that involve critical thinking or group discussions. Based on these recommendations, the researchers refined the instructional procedures for greater

clarity and effectiveness while maintaining all seven origin steps. Additionally, the instructional procedures consisted of seven steps as follows: introducing objectives and tasks, creating real-life situations, formulating problem, solving problems, concluding, validating conclusion, and evaluating.

Discussion

1. Discussion on the Current States and Problems in Learning Interest and Academic Achievement of Art Students

As the researchers surveyed both teachers and students, they found a moderate to strong level of interest, especially when lessons were linked to real-life situations through case studies or group discussions. However, students struggled to maintain engagement and had difficulty applying knowledge outside the classroom. The test results also showed weaknesses in dealing with abstract concepts related to philosophy, morality, and politics. These findings are consistent with Dewey's (1938) view that meaningful learning occurs through experience and reflection. This may also explain why art students who generally rely on sensory and practice-based learning perform better with concrete tasks but face challenges with abstract theoretical content. The results are in line with He's (2021) findings that using Dewey's ideas increases student participation and with Egana-delSol's (2023) study showing that real-life art workshops improved academic performance and creativity. Research on active learning also confirms that engaging with content through group work or role-play enhances motivation and deeper understanding.

Despite these advantages, experiential and situational approaches may face limitations, such as requiring more preparation time and resources. Compared with more structured approaches such as cognitivism or lecture-based teaching, Dewey's model places greater demands on teachers to contextualize content possibly contributing to students' continued difficulty with highly abstract topics.

2. Discussion on the Instructional Model Using John Dewey's Theory and Situated Learning Theory

The instructional model created in this study used ideas from John Dewey's theory and situational learning theory to address the learning issues found among art students. It has six components and follows seven teaching steps. The IOC for the model, evaluated by five experts, received a perfect score of 1.00 across all components. The model was also rated highly appropriate, with an average score of 4.87 and a standard deviation of 0.3, indicating that it successfully connects theoretical concepts with practical applications. Experts recommended several improvements,

such as integrating more real-life activities like case studies and role-play, providing additional teacher training, using varied assessments, and allowing more time for tasks that promote critical thinking. These suggestions are consistent with Dewey's view that learning occurs through experience and reflection, as well as with situated learning, which emphasizes social interaction and real-world situations (Dewey, 1938; Lave & Wenger, 1991). The alignment of these recommendations with both theories may explain why the model fits well with art students, who typically learn best through hands-on, experiential, and socially guided activities.

This model is also supported by Sulistiawati (2024), who found that Dewey's ideas remain relevant in digital learning environments, and by Sriyanta et al. (2019), who showed that situated learning combined with teacher creativity can enhance motivation and help students apply knowledge in real-life contexts. However, implementing this model may pose challenges, such as requiring additional preparation time, teacher expertise, and adequate learning resources. Compared with more structured approaches such as cognitivism or lecture-based teaching, this model demands more facilitation and contextualization, which may be difficult in large classes or time-limited settings.
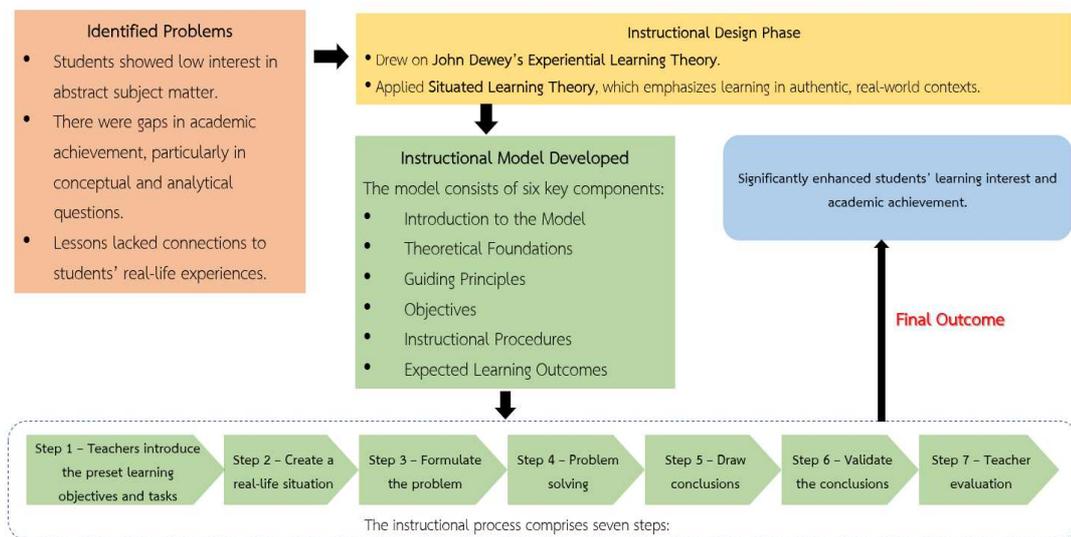
Body of knowledge

Figure 2 body of knowledge from the research

Figure 2 displays the findings from this study. It creates an instructional model for art students enrolled in classes on abstract subjects like "Ideology, Morality, and

the Rule of Law" by fusing theory with empirical facts. After examining similar problems, this model was created by fusing principles from John Dewey's theory and situated learning theory. It has six components and seven instructional procedures. The knowledge from this study gives a useful guide using theories in teaching, supports students' involvement, meaningful learning situation, and fits to the learner-centered way.

Conclusions

1. The Current States and Problems in Learning Interest and Achievement of Art Students

Many art students demonstrated sincere interest in the course topics, such as ideology, morality, and the rule of law, despite the fact that they frequently found it difficult to stay focused or perform consistently over time. This happened as a result of lectures being the main teaching method and the excessively abstract nature of the material, which did not fit with the students' existing knowledge. Instructors discovered that providing students with real-world examples and allowing them to discuss them greatly increased student participation. Dewey's theories of experiential learning and the development of understanding through the application of concepts to real-world situations are in line with this.

2. Effectiveness and Appropriateness of the Developed Instructional Model

The instructional model based on John Dewey's learning theory and situated learning theory got a perfect IOC score of 1.00 for all components, with a high overall appropriateness rating (mean = 4.87, SD = 0.3). The model consists of six components: introduction, theoretical foundation, guiding principles, objectives, instructional procedures, and expected outcomes. The instructional process has seven steps: starting by explaining the goals and tasks, setting up real-life scenarios, presenting a problem, working through solutions, wrapping up the lesson, checking if the conclusions are correct, and assessing the learning. The model addresses the issues that were previously mentioned by using hands-on, real-world, and student-centered methods. Input from experts helped improve the structure, and research supports that this approach is effective in building interest and achieving success, especially in complex or multi-topic areas like ethics and law.

Suggestion

From the research results the researcher has suggestions as follows:

Suggestion for application

1. According to the study's findings regarding the existing state and problems in terms of learning interest and achievement, it is recommended that the involved parties adopt more interactive and context-based teaching methods in the classroom.

2. Because the study found that the instructional model based on John Dewey's theory and situational learning theory was validated and considered highly appropriate, the model should be used in similar courses and further tested in other educational settings.

Suggestion for future research

1. The research showed that the instructional model successfully increased learning interest and achievement for art students. Because of this, it can be used in other courses that deal with abstract content at the higher education level, especially by linking the course material to real-life situations that students can relate to.

2. Future research should explore applying this model to students in early education or test it against other teaching methods to see how effective it is in other learning environments.

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