The Effects of an Instructional Model Based on John Dewey's and Situational Learning Theory to Enhance the Learning Interest and Academic Achievement of Art Students Taking the Course of Ideology, Morality and the Rule of Law

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Abstract

This research consists purposes were 1. to compare the progress of the experimental group before and after instruction and 2. to compare the learning interest and academic achievement of art students enrolled in the course Ide Ideology, Morality, and the Rule of Law between the experimental and control groups after the instructional intervention. Two classes, 90 students each, from Hebei Academy of Fine Arts were cluster sampling and randomly assigned to experimental and control conditions. The experimental group was taught implementing the instructional model based on John Dewey's and situational learning theory, while the control group received conventional instruction. Research instruments included expert-validated lesson plans (appropriateness ratings: experimental M = 4.53, traditional M = 4.25), a Learning Interest Questionnaire (α = .82), and a comprehensive final examination. Content validity indices ranged from 0.60 to 1.00 across all measures. Findings revealed that 1) the experimental group showed significantly higher post-test scores for both learning interest and academic achievement compared with their pre-test scores, confirming the effectiveness of the instructional model, and 2) the experimental group outperformed the control group with statistically significant differences and a high effect size. The findings indicate that integrating experiential and situational learning theories produces measurable pedagogical improvements in civic education for art students.

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

Introduction

In recent years, China's higher education system has increasingly prioritized ideological and moral instruction to promote civic values, patriotism, and social responsibility among university students (Zhang & Zheng, 2024). A core component of this effort is the compulsory course Ideology, Morality, and the Rule of

Law, which is taught across disciplines, including art education. However, for art students who tend to favor creative, experiential learning the course is often perceived as abstract and disconnected from practical realities. This has resulted in two key issues: diminished learning interest, marked by passive engagement, and limited academic achievement, especially in applying knowledge and critical thinking.

These challenges are rooted in conventional lecture-based instruction, which relies heavily on rote memorization and theoretical delivery, restricting opportunities for meaningful participation and reflective learning (Chen, Elliot, & Sheldon, 2019; Moore, 2019). To address these issues, scholars advocate for learner-centered approaches informed by constructivist theory, particularly John Dewey's experiential learning and Situational Learning Theory. Dewey emphasized learning through inquiry and experience, while Situational Learning Theory highlights the value of contextual, socially grounded education (Ahmady & Khani, 2022). These frameworks support instructional models that enhance student engagement, foster understanding, and improve learning outcomes in ideological and political education.

In response to these concerns, this study develops and applies an instructional model integrating John Dewey's theory and Situational Learning Theory to enhance both learning interest and academic achievement among art students enrolled in the course Ideology, Morality, and the Rule of Law. The model is designed to simulate real-life ideological contexts, promote problem-solving, and foster reflective dialogue, aiming to transform passive learning into active engagement. Therefore, the study seeks to (1) compare the learning interest and academic achievement within the experimental group before and after the implementation, and (2) compare the learning interest and academic achievement between the experimental and control groups after the implementation of the instructional model.

The Purposes

1. To compare the enhancement of learning interest and academic achievement of art students taking the course Ideology, Morality, and the Rule of Law before and after the implementation within the experimental group.

2. To compare the enhancement of learning interest and academic achievement of art students taking the course Ideology, Morality, and the Rule of Law between the experimental group and the control group after the implementation.

Literature Review

The researchers reviewed relevant literature to identify the knowledge gap that this study addresses:

1. John Dewey's Theory

John Dewey's educational theory views education as a lifelong process derived from learners' real-life experiences. It emphasizes that learners' needs and interests should be at the center of the learning process, and that learning must be connected to the social context and real-life situations. Dewey asserted that the aim of education is not merely the accumulation of abstract knowledge, but rather the intellectual and social "growth" that occurs continuously through meaningful participation (Gordon & English, 2016). His core principle of "learning by doing" promotes inquiry-based learning, experiential learning, and reflective thinking, where teachers act as facilitators rather than knowledge transmitters (Waks, 2013). Furthermore, Dewey proposed that schools should function as "miniature democratic communities" that promote participation, dialogue, critical thinking, and social responsibility (Gordon & English, 2016). In the current educational context, situational learning approaches that simulate real-life experiences such as interactive web-based learning have been proven effective in fostering reflective thinking, reasoning ability, and the transfer of learning to real professional practice.

2. Situational Learning Theory

Situational Learning Theory emphasizes that knowledge is best acquired through active participation in meaningful contexts, where learning is embedded in real-world situations and facilitated by dynamic interaction and social engagement. This theory draws from both educational psychology and anthropology, viewing learning as a socially situated process in which meaning is constructed through context-bound experiences. Research in the field has demonstrated that applying this theory in instructional design can foster deeper understanding and greater motivation among learners by connecting abstract concepts with authentic, practice-based environments. Ahmady and Khani (2022) found that clinical education environments, when designed with attention to situational contexts, can significantly enhance student engagement and critical thinking. Similarly, Sriyanta, Notosudjono, and Rubini (2019) highlighted those situational factors such as leadership styles and organizational culture play a critical role in shaping effective learning environments, particularly in education systems aiming to foster innovation and self-efficacy. Therefore, integrating situational learning elements into instructional models may contribute to improved academic outcomes by bridging theory and practice in contextually relevant ways.

3. Learning Interest

Learning interest refers to a learner's positive cognitive and emotional engagement with learning tasks, serving as a strong internal motivator that promotes sustained participation and achievement. This study uses Hidi and Renninger's four-phase model of interest development, which includes: 1) triggered situational interest, 2) maintained situational interest, 3) emerging individual interest, and 4) well-developed individual interest. The model shows how interest starts with external factors and grows into something more personal, which helps in creating better instructional design. Studies show that when students are interested in what they are learning, it has a big effect on how motivated they are to do well in school and how much they actually achieve. Herpratiwi and Tohir (2022) found that interest and discipline have a positive effect on students' learning motivation. Hendrawijawa (2022) also noted that learning interest acts as a mediator between motivation, discipline, and academic achievement. These results show that building a genuine interest in learning is key to boosting motivation and achieving better academic outcomes.

4. Academic Achievement

Academic achievement means the results students show through their learning, like how well they do on tests, how much they participate in class, their work in groups, and their performance on practical assignments. In this study, how well students perform in Ideology, Morality, and the Rule of Law is measured using several assessments that follow Dewey's ideas about learning through experience and real-life situations, which focus on applying knowledge in practical ways and using genuine evaluations. Studies indicate a clear connection between a student's motivation and their academic success. According to Sivrikaya (2019), students who are motivated, particularly those driven by external factors, tend to perform better in their studies. In addition, emotional and psychological aspects like self-efficacy, engagement, and optimism are also very important (Moore, 2019; Colmar et al. 2019). These factors influence how much motivation and support from the learning environment actually make difference, as pointed out by Cho and Kim (2019) and Chen et al. (2019). Consequently, academic achievement is really about how well a student is growing overall, and the best way to measure that is by using different approaches that take into account how people learn in real situation, based on constructivist and situational learning ideas.

Methodology

This study uses a quantitative method with a quasi-experimental setup. The research process is outlined as follows

1. Population and sample

1.1 Population comprised 1,350 first-year students at Hebei Academy of Fine Arts in the 2024 academic year, organized into 15 classes of approximately 90 students each.

1.2 Sample: An a priori power analysis using G*Power 3.1 (effect size = 0.85, α = 0.05, power = 0.95) indicated a minimum required sample of 74 participants. Using cluster random sampling at the classroom level, two classes were selected from the 15: Class 8 (n = 90) as the experimental group (taught with Dewey's and Situational Learning Theory) and Class 10 (n = 90) as the control group (taught with traditional methods). To control for instructor effects, the same qualified instructor taught both groups.

2. Research instruments

This study used three types of tools to measure the results and how well the instructional model worked.

2.1 Lesson plans

1) Nine lesson plans were created using Dewey's theory and situational learning theory, providing 18 hours of teaching. These plans were reviewed by five experts, who gave an average score of 4.53 for how appropriate they are.

2) Additionally, nine traditional lesson plans, which also covered 18 teaching hours, were reviewed by the same group of experts and scored an average appropriateness rating of 4.25.

2.2 Learning interest questionnaire

This questionnaire was created to assess how interested art students are in learning about the course "Ideology, Morality, and the Rule of Law." The structure is based on four stages of interest development: triggered situational interest, then maintained situational interest, followed by emerging individual interest, and finally well-developed individual interest. The tool includes 20 questions using a Likert scale, and students are asked to indicate how much they agree with each statement on a scale from 1 to 5, where 5 means "strongly agree" and 1 means "strongly disagree." Five experts checked all the items to make sure they were valid in term of content. The IOC scores for each item ranged between 0.80 and 1.00, which shows that the content has strong validity. The reliability of the measurement was also tested, and it had a Cronbach's alpha α = .82.

2.3 Academic achievement test

The academic achievement test was to check how well the art students were doing in the course called “Ideology, Morality, and the Rule of Law.” In the context of modern Chinese society, the exam covers the ethics, social values, and legal principles. The components of the test are as follows:

Multiple-choice questions: There are 9 items, and each one is worth 3 points, which adds up to a total of 27 points.

True/false questions: There are 9 items, and each is worth 2 points, so the total is 18 points.

Short-answer questions: There are 3 items, each giving 5 points, which adds up to a total of 15 points.

Essay questions: There are 2 items, each giving 20 points, which adds up to a total of 40 points.

The total score is 100 points. All exams were marked by the same evaluator to make sure the scoring was consistent and to reduce bias. Five experts checked the content validity of the test items. The Item-Objective Congruence scores for each item ranged between 0.80 and 1.00.

3. Data collection: Data was gathered over a period of 12 weeks, starting in October and ending in December. Both groups took a pre-test that assessed their level of interest in learning and their current achievement. The teaching sessions lasted for 9 weeks, which amounted to a total of 18 hours. The experimental group was taught using a model based on Dewey’s theory and situational learning, while the control group received traditional instruction. After the teaching period, a post-test was given to evaluate any changes in the outcomes.

4. Data analysis: The collected data were analyzed using both descriptive and inferential statistical methods. Descriptive statistics, including mean, standard deviation, frequency, and percentage, were used to summarize the general characteristics of the data. Inferential statistics were employed to evaluate the effectiveness of the instructional model. A dependent sample t-test was used to compare the pre-test and post-test scores within the experimental group, while an independent sample t-test was applied to compare post-test scores between the experimental and control groups. Additionally, student satisfaction data were analyzed using descriptive statistics to assess learners’ perceptions of the instructional model.

5. Statistical procedures: The researcher used SPSS version 27.0 to analyze the collected data, employing both descriptive and inferential statistics in accordance with the research objectives. The analysis began with the Shapiro–Wilk test to assess the normality of the pre-test and post-test scores in both the experimental and control groups, ensuring that the data followed a normal distribution. Then, a Dependent Samples t-test was used to compare the pre-test and post-test scores within the experimental group, in order to analyze changes in learning interest and academic achievement after implementing the instructional model based on John

Dewey's Theory and Situational Learning Theory. Additionally, an Independent Samples t-test was conducted to compare the post-test scores between the experimental and control groups, aiming to evaluate differences in learning interest and academic achievement resulting from the newly developed instructional approach versus traditional teaching methods. Furthermore, descriptive statistics including mean and standard deviation were used to summarize general data characteristics.

Results

This Research The researcher can classify the research results as follows

1 . Results of the Comparison of Learning Interest and Academic Achievement Within the Experimental Group Before and After Implementation

The normality test using the Shapiro-Wilk statistic showed that the pre-test and post-test scores of both the experimental and control groups across all measurement instruments were normally distributed ($p > .05$). Subsequently, the researcher analyzed data within each group by comparing students' pre-test and post-test scores to examine differences in academic achievement after instruction. A Dependent t-test was used to analyze these differences. The results are presented in Table 1.

Table 1 Comparison of Pre-test and Post-test Scores of Art Students within the Experimental and Control Groups Using Dependent t-test

Topics	Descriptive Statistics		Within-Subject Analysis			
	Pretest Mean (SD)	Posttest Mean (SD)	Mean Difference (SD)	SE Difference	t-value (p-value)	Effect
Experimental Group (n = 90)						
Questionnaire on Art Students' Learning Interest in "Ideology, Morality, and the Rule of Law" Course	3.05 (.230)	4.10 (.191)	1.051 (.278)	.032	32.983 (<.001)	3.558
Class of 2024 Ethics and Rule of Law Class Exam Questions	60.40 (8.831)	84.28 (7.511)	23.878 (10.856)	1.444	20.866 (<.001)	2.200
Control Group (n = 90)						

Questionnaire on Art Students' Learning Interest in "Ideology, Morality, and the Rule of Law" Course	2.95 (.215)	3.36 (.187)	.410 (.278)	.029	13.968 (<.001)	1.471
Class of 2024 Ethics and Rule of Law Class Exam Questions	60.72 (10.446)	73.70 (8.652)	12.78 (11.636)	1.227	10.581 (<.001)	1.116

* Statistically significant at the .05 level

From the table 1 it was found that both the experimental and control groups showed statistically significant improvements at the .05 level in both variables learning interest and academic achievement after instruction. In the experimental group, the mean score for learning interest increased from 3.05 to 4.10 ($t = 32.983$, $p < .001$, Effect Size = 3.558), and academic achievement rose from 60.40 to 84.28 ($t = 20.866$, $p < .001$, Effect Size = 2.200). The control group also demonstrated gains, with learning interest increasing from 2.95 to 3.36 ($t = 13.968$, $p < .001$, Effect Size = 1.471) and academic achievement improving from 60.72 to 73.70 ($t = 10.581$, $p < .001$, Effect Size = 1.116). However, the experimental group exhibited a more pronounced level of improvement, particularly with high to very high effect sizes, reflecting the strong effectiveness of the instructional model based on John Dewey's Theory and Situational Learning Theory in significantly and positively enhancing students' learning outcomes.

2. Results of the Comparison of Learning Interest and Academic Achievement Between the Experimental Group and the Control Group After Implementation

Subsequently, the researcher compared the learning interest and academic achievement scores of art students in China after the instructional intervention to analyze the differences between the experimental and control groups. An Independent t-test was used to examine these differences. The analysis results are presented in Table 2.

Table 2 Comparison of Post-Test Scores on Learning Interest and Academic Achievement Between the Experimental and Control Groups Using Independent t-test

Topics	Descriptive Statistics		Between-Subject Analysis			
	Pretest Mean (SD)	Posttest Mean (SD)	Mean Difference (SD)	SE Difference	t-value (p-value)	Effect Size
Learning Interest						
Questionnaire on Art Students' Learning Interest in "Ideology, Morality, and the Rule of Law" Course						

Experimental Group (n = 90)	3.05 (.230)	4.10 (.191)	.738	.028	26.224 (<.001)	3.915
Control Group (n = 90)	2.95 (.215)	3.36 (.187)				
Academic Achievement						
Class of 2024 Ethics and Rule of Law Class Exam Questions						
Experimental Group (n = 90)	60.40 (8.831)	84.28 (7.511)	10.578	1.208	8.757 (<.001)	1.306
Control Group (n = 90)	60.72 (10.446)	73.70 (8.652)				

* Statistically significant at the .05 level

From the table 2 it was found that the experimental group had significantly higher post-instruction scores in both learning interest (M = 4.10, SD = .191) and academic achievement (M = 84.28, SD = 7.511) compared to the control group (learning interest: M = 3.36, SD = .187; academic achievement: M = 73.70, SD = 8.652), with statistical significance at the .05 level (t = 26.224, p < .001 for learning interest; t = 8.757, p < .001 for academic achievement). The effect sizes were also large 3.915 for learning interest and 1.306 for academic achievement indicating a strong impact. These findings highlight the effectiveness of the instructional model developed based on John Dewey's Theory and Situational Learning Theory in significantly and clearly enhancing student learning outcomes.

Conclusion

This Research The researcher can summarize the results of the research study according to the following objectives

1. Results of the Comparison of Learning Interest and Academic Achievement Within the Experimental Group Before and After Implementation

The findings revealed that the implementation of the instructional model based on John Dewey's Theory and Situational Learning Theory significantly improved students' learning interest and academic achievement in the experimental group. After the intervention, the mean score of learning interest increased from 3.05 to 4.10 (t = 32.983, p < .001, effect size = 3.558), and academic achievement rose from 60.40 to 84.28 (t = 20.866, p < .001, effect size = 2.200). At the same time, the control group, which received traditional instruction, also showed improvements. The learning interest increased from 2.95 to 3.36 (t = 13.968, p < .001, effect size =

1.471), and academic achievement improved from 60.72 to 73.70 (t = 10.581, p < .001, effect size = 1.116). However, the experimental group demonstrated more substantial gains than the control group, both in terms of mean scores and effect sizes. This indicates the superior effectiveness of the developed instructional model in enhancing students' learning outcomes.

2. Results of the Comparison of Learning Interest and Academic Achievement between the Experimental Group and the Control Group After Implementation

The comparison between the experimental group and the control group provides more evidence that the model works well. After the model was used, the experimental group performed better than the control group in both learning interest and academic achievement. In terms of learning interest, the experimental group had a mean score of 4.10 compared to 3.36 for the control group (t = 26.224, p < .001, effect size = 3.915). For academic achievement, the experimental group scored 84.28 versus 73.70 for the control group (t = 8.757, p < .001, effect size = 1.306). These results show that the instructional model led to better outcomes in the experimental group compared to traditional teaching way in the course.

Discussion

This Research The researcher can discuss the research results as follows

1. Comparison of Learning Interest and Academic Achievement within the Experimental Group Before and After Implementation

After the teaching intervention, students in the experimental group showed a greater interest in learning and better academic results. This improvement could be because the model focused on activities that connect with real-life situations, which helped students become more involved with the material and take more ownership of their learning. These results match what Hendrawijaya (2022) and Herpratiwi and Tohir (2022) found, showing that learning interest affects academic performance and motivation. Also, by linking learning to real social contexts, students were able to connect their studies to actual situations, which supports the idea of situational learning theory as explained by Ahmady and Khani (2022). The findings also agree with Zhang and Zheng (2024), who pointed out that instructional models can boost student engagement and help develop critical thinking in modern Chinese education.

2. Comparison of Learning Interest and Academic Achievement Between the Experimental and Control Groups After Implementation

The study showed that students in the experimental group, who were taught using Dewey's theory and situational learning theory, scored better in both their interest in learning and their academic performance

compared to those in the control group. This could be because the teaching method let students learn through real-life situations and connect the material to their everyday lives. The approach also encouraged more interaction, discussion, and structured reflection, which made the learning process more interesting and successful. Ahmady and Khani (2022) point out that experiential learning, active involvement, and social interaction help students grasp concepts more thoroughly. Additionally, the model met both personal and external psychological needs through meaningful activities, which helped boost motivation and improve academic results (Chen, Elliot, and Sheldon, 2019). These findings support Dewey's belief that learning happens through experience and reflection (Gordon and English, 2016; Waks, 2013) and indicate that such methods can increase student interest and success in the course Ideology, Morality, and the Rule of Law.

Discoveries or New Knowledge

The study found that using an instructional model that mixes Dewey's ideas with situational learning helped students become more interested in learning and perform better academically. This model focuses on learning by doing, asking questions, thinking deeply about what you're learning, and connecting lessons to real-life situations. Furthermore, it includes elements from situational learning, which stress the importance of real-life situations, active student involvement, social interactions, and creating meaning within different cultural backgrounds.

The teaching process is broken down into three main stages: before the lesson starts, while the lesson is happening, and after the lesson ends. These stages involve six specific steps: first, figuring out what the students should learn and what tasks they will do; second, setting up real-life situations for them to engage with; third, asking questions that make them think deeply; fourth, helping them work through problems step by step; fifth, going over what was learned to make sure it is clear; and sixth, taking time to think about the experience and understand it better.

In summary, the instructional model created in this study worked well in the course "Ideology, Morality, and the Rule of Law" and helped improve both students' interest in learning and their academic performance, especially among art students. It shows how theoretical learning ideas can be successfully used in real classroom settings.

Suggestion

1. Suggestions for use

1.1 Educators can use instructional model based on Dewey's theory and situational learning theory to boost students' interest in learning and their academic results, especially in course like Ideology, Morality, and the Rule of Law.

1.2 The curriculum should include real-world applications and chances for students to reflect, which helps connect what they learn in class with their own experiences.

1.3 Teachers should keep track of students' progress in both their motivation and academic success by using ongoing assessments that include classroom observations, self-report forms, and exams.

2. Suggestions for next research

2.1 Future research should look into using the instructional model based on Dewey's theory and situational learning theory with different groups of students and in various subjects. It is also important to study how the model can be adapted using digital tools and modern media to make it more effective and relevant for today's education.

2.2 Long-term studies are suggested to check how well the model works over time in keeping students interested and improving their academic results. More research should also examine what factors influence how well the model works, such as how well teachers are trained, students' attitudes, and the learning environment.

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