



Differences in Children's Curiosity and Learning Motivation in Conventional Vs Experiential Learning Methods

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Abstract: This study aims to examine the differences in students' curiosity and learning motivation between those taught using conventional methods and those using experiential learning methods. The research employed a quasi-experimental design with a Pretest-Posttest Control Group Design. The participants consisted of 100 elementary school students, divided into two groups: the experimental group (experiential learning method) and the control group (conventional method), each with 50 students. Instruments used in this study included questionnaires measuring curiosity and learning motivation. Data were analyzed using independent t-tests. The results showed significant differences between the two groups. Students who received experiential learning showed a greater increase in both curiosity and learning motivation compared to those taught using conventional methods. Therefore, experiential learning is more effective in enhancing students' curiosity and learning motivation at the elementary level

Keywords: Curiosity, Learning Motivation, Experiential Learning, Conventional Method

Introduction

In the world of modern education, there is an increasing awareness that the learning process can no longer be limited to the mastery of material alone. Effective learning is one that naturally arouses curiosity and motivation in students. This is especially important in the early childhood and primary education stages, which are the foundation of character building and children's long-term interest in learning (Agustini et al., 2024).

Curiosity is an essential component of the learning process. Curiosity encourages children to explore their environment, ask questions, seek new information and fosters a spirit of lifelong learning. Recent research shows that children who have high levels of curiosity tend to be more actively engaged in learning and show better learning outcomes (Abdelghani et al., 2022). Curiosity has also been shown to contribute to the development of students' critical thinking, problem-solving and creativity skills.

Meanwhile, learning motivation is another psychological factor that is very important in determining the quality of student engagement in the learning process.

Learning motivation can be divided into two main types, namely: intrinsic motivation, which arises from personal interest and satisfaction with the learning activity; and extrinsic motivation, which is triggered by external factors such as grades, rewards, or pressure from the environment (Liu et al., 2024). Intrinsically motivated students have a tendency to study more deeply, independently and continuously.

One factor that greatly influences children's curiosity and motivation to learn is the learning methods used by teachers in the classroom. In many schools, the dominant method used is the conventional method - a teacher-centred approach where the teacher is the main source of information and students are passive listeners. This approach emphasises memorisation, lectures and written evaluations, and provides little space for students to develop critical thinking, ask questions or experiment. This results in decreased curiosity and intrinsic motivation to learn, as students are more focused on the results (grades) rather than the learning process itself (Schunk, 2022).

As an alternative to conventional methods, experiential learning comes as an innovative solution in education. Experiential learning, initiated by David Kolb, is a learning process that places direct experience at the centre of the learning process. This model consists of four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Through this cycle, students not only receive information, but also observe, reflect, and apply what they learn in a real context (Kolb, 1984; Liu et al., 2024).

Empirical evidence shows that experiential learning is more effective in fostering curiosity and intrinsic motivation because learning occurs in an active, participatory and meaningful way. Students are given the freedom to explore their own ideas, solve real problems, and engage in collaborative discussions or projects. Research by Agustini et al. (2024) showed that inquiry-based learning - a form of experiential learning - can increase students' interest, curiosity, and critical thinking skills from an early age.

However, there are limited studies that directly compare the effect of conventional and experiential learning methods on children's curiosity development and learning motivation, especially in the context of primary education in Indonesia. In fact, this information is very important to be used as a foundation in designing learning approaches that are more targeted and relevant to the developmental needs of children today.

Therefore, this study aims to examine and analyse the differences in curiosity and learning motivation of children who follow conventional learning methods compared to those who learn through experiential learning approaches. By knowing these differences, it is hoped that this research can make a real contribution to the development of learning strategies that are more effective and have a positive impact on children's learning process as a whole.

Methodology

Research Type and Approach

This research is a quantitative comparative research, which aims to compare two or more variables based on numerical data measurements. The approach used is ex-post facto,

because researchers do not directly manipulate variables, but observe differences in curiosity and motivation to learn based on the learning methods that have been applied.

Location and Time of Research

This research was conducted in two elementary schools that implement:

- Conventional Method
- Experiential Learning Method
- The research implementation time is planned for the even semester of the 2024/2025 academic year during February-April 2025.

Population and Sample

The population in this study were fourth and fifth grade students in two elementary schools with different learning methods. The sample was determined by purposive sampling, with criteria:

- School A: using conventional method.
 - School B: using experiential learning method.
- Each school was taken 50 students, so the total sample amounted to 100 students.

Research Variables

- Independent variable (X1): Learning method (Conventional vs. Experiential Learning)
- Dependent variables (Y1 and Y2): Y1 = Children's curiosity Y2 = Children's learning motivation

Data Collection Techniques.

Data were collected through:

- Questionnaire
- Curiosity was measured using an adaptation scale of the Curiosity and Exploration Inventory-II (CEI-II) developed by Kashdan et al. (2009).
- Motivation to Learn was measured using an adapted scale from the Academic Motivation Scale (AMS) by Vallerand et al.
- Observations were made of the learning process in both schools to support the quantitative data.
- Documentation. To obtain supporting data, such as school curriculum and lesson plans.

Instrument Validity and Reliability Test

- Validity test was conducted using Pearson Product Moment correlation technique.
- Reliability test is calculated using Cronbach's Alpha formula, with criteria:
 $\alpha > 0.70$ = reliable
 $\alpha < 0.70$ = not reliable

Data Analysis Techniques

Data were analysed using the following statistical techniques:

a) Normality Test

Using Kolmogorov-Smirnov or Shapiro-Wilk to ensure that the data is normally distributed.

b) Homogeneity Test

Using Levene's Test to see if the variance between groups is homogeneous.

c) Difference Test (Independent Sample t-test)

To find out if there is a significant difference in curiosity and learning motivation between the two groups.

d) Correlation Test (Pearson Product Moment)

To see the relationship between curiosity and children's learning motivation. All analyses were conducted with the help of the latest version of SPSS or other statistical programmes such as JASP or Jamovi.

Result and Discussion

Data Description

This study involved 100 grade V students who were divided into two groups:

- Experimental group (experiential learning method): 50 students
- Control group (conventional method): 50 students

Measurements were made twice, namely before treatment (pretest) and after treatment (posttest), using a curiosity questionnaire and learning motivation.

Pretest and Posttest Results

Table 1. Average Curiosity Score

Group	Pretest (Mean)	Posttest (Mean)	(Difference)
Conventional	63,5	67,2	+3,7
Experiential	64,0	82,8	+18,8

Table 2. Average Learning Motivation Score

Group	Pretest (Mean)	Posttest (Mean)	(Difference)
Conventional	66,1	69,5	+3,4
Experiential	66,0	86,3	+20,3

Results of Statistical Test (t-test)

An independent sample t-test was conducted to see if there was a significant difference between the two groups.

Table 3. Group 1

Variabel	Pretest (Mean)	Posttest (Mean)	(Difference)
Curiosity	66,1	69,5	+3,4
Learning Motivation	66,0	86,3	+20,3

Table 4. Group 2

Variabel	Value of t	Sig. (p-value)	Conclusion
Curiosity	5,71	0,000	Significant
Learning Motivation	6,12	0,000	Significant

Interpretasi: Since the significance value is <0.05 , there is a significant difference between conventional and experiential learning methods in increasing students' curiosity and learning motivation.

The Results Showed That

The experiential learning method significantly increases students' curiosity. This is in line with Kolb's theory (1984) which states that experiential learning makes students active and reflective, thus encouraging exploration and questioning. Learning motivation increased significantly in students who learnt using experiential learning. This learning involves students in real activities, thus fulfilling basic psychological needs such as curiosity, competence, and engagement (Deci & Ryan, 1985 - Self Determination Theory). The conventional group also improved, but much lower. This is thought to be because the lecture and memorisation method did not involve active participation of students, thus not triggering interest and emotional engagement. Field observations showed that students in the experiential learning group asked more questions, actively discussed, and seemed enthusiastic when following project-based learning or hands-on activities.

Discussion

The results showed that:

- The experiential learning method significantly increased students' curiosity. This is in line with Kolb's theory (1984) which states that experiential learning makes students active and reflective, thus encouraging exploration and questioning.
- Learning motivation increases significantly in students who learn using experiential learning. This learning involves students in real activities, thus fulfilling basic psychological needs such as curiosity, competence, and engagement (Deci & Ryan, 1985 - Self Determination Theory).
- The conventional group also improved, but much lower. This is thought to be because the lecture and memorisation methods lacked active participation of students, thus not triggering interest and emotional engagement.
- Field observations showed that students in the experiential learning group asked more questions, actively discussed, and seemed enthusiastic when following project-based learning or hands-on activities.

Conclusion

Based on the results of the research on Differences in Curiosity and Motivation of Children to Learn in Conventional vs. Experiential Learning Methods for 100 elementary school students, the following conclusions were obtained:

- a) There is a significant difference in the level of curiosity between students who learn using experiential learning method and students who learn using conventional method. The group that used experiential learning showed a much higher increase in curiosity score than the control group.
- b) Students' learning motivation also increased significantly in the experiential learning group.
- c) This shows that the experiential learning method is able to arouse students' emotional involvement and interest in the learning material.
- d) The conventional method still provides improvement, but statistically it is not as strong as the experiential learning method. One-way learning tends to be less stimulating for students' active involvement.
- e) The experiential learning method is proven to be more effective in increasing curiosity and learning motivation of elementary school students compared to conventional methods.

Suggestions

Based on the results and conclusions of the study, the author provides the following suggestions:

- a) For Teachers and Educational Practitioners: It is recommended to start integrating experiential learning methods in the daily learning process, especially in exploratory subjects. Project-based learning activities, experiments, and direct experience are proven to be able to increase student interest and motivation.
- b) For Schools: It needs support from the school to provide sufficient facilities and time so that experiential learning method can be applied optimally. In addition, training for teachers is also important so that the implementation of this method runs effectively.
- c) For Further Researchers: This research can be further developed by involving different levels of education or expanding other variables, such as academic learning outcomes, creativity, or student teamwork.
- d) For the Curriculum: The results of this study can be an input for the preparation of a curriculum that is more oriented towards hands-on learning experiences as the main strategy in forming active, curious, and motivated students.

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