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DEVELOPING LESSON PLANS FOR ELEMENTARY STUDENTS BASED ON EXPERIENTIAL LEARNING

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ABSTRACT

Experiential learning holds significant importance in the educational process and personal development of students. This perspective focuses on creating a multi-dimensional and positive learning environment where students can learn through real experiences and interact with the surrounding environment. Students connect knowledge to the real world and apply it to solve daily life challenges. The article analyzes David Kolb's experiential learning process and proposes a structured lesson plan for elementary students based on this foundation. The lesson plan is illustrated by integrating the steps and processes of the experiential learning process to optimize students' learning experiences, thereby helping them develop self-learning and creativity skills.

KEYWORDS: experiential learning, students, elementary school, lesson plans, real life.

1. INTRODUCTION

A lesson plan is a detailed document that teachers use to organize and implement the teaching process. It includes activities, teaching methods, instructional materials, and specific learning objectives designed to meet students' learning needs within a certain timeframe.

In the regulations on elementary school teacher standards in Vietnam, the professional standards for elementary school teachers are evaluated based on five criteria: (1) Standards for teacher qualities; (2) Standards for professional development; (3) Standards for building an educational environment; (4) Standards for developing school-family-community relationships; (5) Using foreign languages or ethnic languages, applying information technology, and utilizing technology devices in teaching and education. These five standards are specified by 15 criteria, with criterion 4 (under standard 2) being "Developing lesson plans and education towards developing students' qualities and capacities, suitable for the actual conditions of the school and the local area." [1] This is one of the mandatory criteria to meet the requirements to become an elementary school teacher.

Developing a lesson plan plays a crucial role in the development and enhancement of teachers' capabilities [2], [3]. A carefully designed lesson plan helps teachers grasp the necessary knowledge content to be conveyed and suitable teaching methods. Through this design process, teachers have the opportunity to delve deeper into the subject matter and apply effective teaching methods. When teachers have a clear and quality lesson plan, they will be more confident in carrying out their teaching duties. This confidence will be transmitted to students, creating a positive learning environment.

A lesson plan is not only a design document but also an assessment tool for the teaching process. By implementing and evaluating the plan, teachers have the opportunity to learn and adjust their teaching methods for continuous improvement. Additionally, when designing a lesson plan, teachers must work independently and manage their time, while also collaborating with other team members or the teacher community. This helps develop their leadership and management skills.

Experiential learning is an educational approach that focuses on learning through real experiences and direct interaction with the learning environment. It is an educational approach that has long been present in Europe, North America, and Australia. This approach was developed and promoted by researchers such as John Dewey, Kurt Lewin, and Jean Piaget [4]. Instead of just imparting knowledge in an abstract manner, this model encourages students to learn through practice, experimentation, and interaction with the world around them.[5], [6], [7], [8]

Designing lesson plans based on the experiential learning model holds significant importance. It not only helps create a creative and positive learning environment but also comprehensively develops students' abilities, from knowledge to life skills. This is one of the fundamental directions to meet the educational reforms in Vietnam.[1], [9], [10]

When designing lesson plans based on experiential learning, teachers provide more opportunities for activities and real experiences for students. As a result, students access knowledge in a more comprehensive and profound manner. This plan creates conditions for students to actively participate in the learning process through practical activities, experiments, and projects, thereby encouraging student interaction and initiative.

By stimulating students' curiosity and interest, lesson plans based on the experiential learning model can enhance learning effectiveness and help students gain a deeper understanding of concepts and issues. It not only helps students actively build knowledge but also develops important life skills and soft skills such as teamwork, problem-solving, and creativity.

2. RESEARCH QUESTIONS

The purpose of the paper is to analyze David Kolb's 4-step experiential learning process and illustrate a lesson plan designed based on this model in primary education in Vietnam. What are the steps involved in conducting experiential learning? How can an effective lesson plan be designed based on experiential learning in primary education in Vietnam?

3. RESEARCH CONTENT

3.1. Process, Characteristics of Experiential Learning

In experiential learning, experience plays a central role in the learning process [11]. The learner's knowledge is constructed through the transformation of experience [11], [12], [13]; knowledge is created through the process of assimilating and transforming experiences. Experiential learning is most commonly associated with David Kolb's 4-step model.

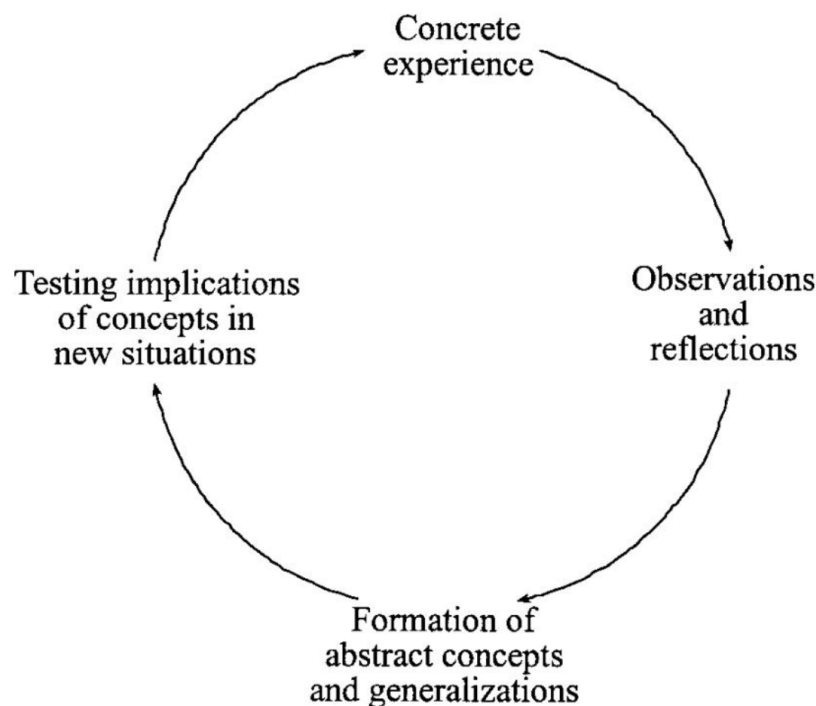


Figure 1. Kolb's Experiential Learning Model [12], [13]

According to Kolb's experiential learning model, the learning process consists of 4 steps:

Step 1: Concrete Experience: In this stage, learners directly engage with specific real-life experiences. This may involve participating in activities, experiencing situations, or directly encountering issues or aspects of the learning topic. These experiences provide them with an initial database to continue the learning process. Direct exposure to these experiences helps learners establish a solid foundation for

further exploration and deeper understanding of the topic. Learners develop the ability to observe and remember information from real-life experiences. This makes the learning process more vivid and engaging, helping learners effectively connect the learned knowledge with reality. Additionally, concrete experiences encourage curiosity and creative exploration in learners, thereby fostering the learning process.

Step 2: Observations and Reflections: After going through concrete experiences, learners continue the learning process by observing and reflecting on the experiences they have had. During this stage, learners take time to contemplate and evaluate their experiences. They reflect on the meaning and implications of those experiences for their learning. Through reflection, learners have the opportunity to adjust and enhance their understanding of the learning topic. Observations and reflections help learners identify and understand their strengths and weaknesses in the learning process. Students also have the opportunity to learn from their own experiences and from others. This step plays a crucial role in helping learners develop analytical and reasoning skills, thereby enhancing their knowledge and learning skills. Furthermore, reflection helps learners reshape their approach and continue the learning process more effectively.

Step 3: Conceptualization: After experiencing concrete experiences and observing reflections, learners further progress by conceptualizing the experiences they have had. In this step, learners create new concepts from their experiences. They strive to understand and organize information logically and systematically. Through conceptualization, learners construct a new knowledge structure, including ideas and concepts that they can apply to similar situations in the future. Conceptualization helps learners gain a deeper understanding of the learning topic, thereby improving their reasoning and analytical abilities. Students can view issues from various perspectives and develop creative thinking skills. This step also helps learners develop skills in organizing and presenting information logically and systematically. By conceptualizing, they can convey their viewpoints clearly and effectively.

Step 4: Testing implications of concepts in new situations: This is the stage of Active Experimentation. In this phase, learners take specific actions to verify and apply the concepts and knowledge formed from the previous steps in real-life situations. Active experimentation is a process in which learners put their knowledge and concepts into practical situations, perform specific actions, and observe the results. During this process, learners not only follow what they have learned but also experiment and learn through direct practice.

By carrying out practical actions, learners have the opportunity to apply and verify the accuracy of the knowledge they have learned. Students can develop and improve specific skills, become familiar with new situations, and learn from real-life experiences. Through active experimentation, learners not only gain confidence in applying knowledge to reality but also develop their creativity and problem-solving abilities. Additionally, they have the opportunity to learn from mistakes and failures, drawing important lessons to improve and develop themselves.

In the experiential learning process according to Kolb's theory, what is particularly noteworthy is that learners go through not just one or two stages but typically all four stages from start to finish, from concrete experience to active experimentation [11], [13]. This ensures that they engage with and utilize all aspects of the experiential learning process, from specific experiences to observation and reflection, followed by conceptualization of results and finally active experimentation. Through each stage, learners have the opportunity to undergo a range of experiences and gather knowledge from all aspects of the learning process, from emotions to profound awareness of the topic they are studying.

The experiential learning model emphasizes several characteristics:

- Activeness: Students are at the center of the learning process, actively participating in practical activities and observations. Learning through experience helps students gain a deep understanding of knowledge and the ability to apply it flexibly to real-life situations.
- Interaction: This model encourages interaction between students and the learning environment, as well as among students themselves. It stimulates the formation and development of social skills. Through interaction with the environment and peers, students also develop social and communication skills.
- Personalization: The learning process is tailored to fit the needs and abilities of each student. It creates a positive learning environment where students feel encouraged and motivated to participate and learn.
- Practicality: Students are encouraged to engage in practical activities, experiments, and projects to apply knowledge to real-life situations. Students have the opportunity to develop practical skills such as experimentation skills, teamwork, and problem-solving. For elementary school students, this model is particularly important as it provides them with initial learning experiences, building a solid foundation for their academic and personal development.

3.2. Structuring a lesson plan for elementary school students based on experiential learning

Applying David Kolb's process to the teaching for elementary school students, the specific content implementation in each step can be summarized as follows:

(I) Learning objectives

(II) Teaching materials

(III) Teaching process

Step 1: Concrete Experience

Teachers create conditions for students to engage in practical activities, observations, experiments, or participate in extracurricular activities to experience and interact with scientific concepts in a real-world environment.

Step 2: Observation and Analysis

Teachers guide students to observe and analyze the results of experiential activities, identify phenomena and interactions between scientific factors in a comprehensive and in-depth manner. Encourage students to discuss and share observations, comments, and personal experiences after conducting scientific experiential activities.

Step 3: Abstract Conceptualization

Teachers guide students to synthesize, analyze, and construct theories from specific experiences and observations. Teachers help students gain a deeper understanding of scientific concepts and their relationships, thereby building scientific concepts and theories.

Step 4: Organizing Experiments and Applications

Teachers encourage students to apply new theories and knowledge to different real-life situations, test and assess their applicability in practical activities related to the scientific concepts and theories they have learned.

3.3. Illustration of an experiential learning-based Science lesson plan for elementary school:

Lesson Plan: "Sound Propagation" (Lesson 1)

(I) Learning Objectives

- To identify objects that produce sound through vibration.

(II) Teaching Materials

a. Teacher:

- Computer, projector
- Equipment for each experiment; Various objects to create sound
- Images, video clips about sound propagation through liquids, solids

b. Students:

- Experiment materials for each group: Including a small drum, drumstick, crumpled paper, small iron rod, cup of water.

(III) Teaching Activities

A. Concrete Experience

Objective: Create an engaging atmosphere and stimulate students' understanding of sound.

Procedure:

- The teacher begins by asking questions: "What sounds have you heard in your daily life?"
- The teacher holds a guitar and asks: "Why do we hear the sound of the guitar when we pluck its strings?"
- Encourage students to share their opinions and understanding.
- The teacher arouses curiosity by asking: "How is sound produced?"

B. Observation and Analysis

Objective: Students will understand that objects produce sound through vibration.

Procedure:

- The teacher raises the question: "According to you, how is sound produced?"
- Students record initial knowledge in their notebooks.
- Organize group discussions, conduct experiments, and share opinions.

Experiment 1: Sprinkle some crumpled paper on the drumhead. Tap the drum and observe what happens.

- While students conduct the experiment, the teacher asks questions to explore:
 - + What do you observe when tapping the drum? If you tap harder, how does the paper react?

Experiment 2: Place your hand on your throat, and when you speak, what do you feel?

- The teacher summarizes the results and encourages students to propose further investigation.

C. Abstractualization

Experiment 1: The crumpled paper vibrates. If you tap harder, the drumhead vibrates more, producing a louder sound. If you place your hand on the drumhead and tap, the drumhead vibrates less, resulting in a quieter sound.

Experiment 2: When speaking, air from the lungs travels up the windpipe, through the vocal cords, causing them to vibrate. This vibration produces sound.

→ Sound is produced by objects vibrating.

D. Active Experimentation and Application

Objective: Provide various examples to demonstrate objects that produce sound through vibration.

Procedure:

- The teacher instructs students to work in groups and find examples of sound production. For example: Two stones hitting each other, tapping the table with your hand, playing music and feeling the vibration of the speaker...

- Students present and conduct experiments, then analyze the results to confirm their understanding.

4. CONCLUSION

Experiential learning is an approach to teaching and learning that offers many advantages for developing students' abilities and qualities. David Kolb's experiential learning model provides insights for teachers on how to effectively organize learning to leverage students' existing knowledge and experiences. We have analyzed David Kolb's 4-step experiential learning process and illustrated a lesson plan designed based on this model for elementary education in Vietnam. Through this, we emphasize the importance of applying the experiential learning model in developing knowledge and skills for elementary school students. This model not only helps students deepen their understanding of scientific concepts but also develops important life skills and soft skills. Additionally, we provide a specific lesson plan for science in elementary education based on the experiential learning model, proposing specific activities to implement this model in teaching practice. It is hoped that through the application of the experiential learning model, teachers can create a positive and creative learning environment, thereby helping students develop comprehensively and become useful citizens for society in the future.

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