Implementation of TPS Cooperative Learning Model for Improving Student Motivation Using Augmented Reality

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Abstract: This study aims to study the application of the TPS type of cooperative learning model to increase student motivation in class VII by trying Think Pair Share (TPS). The method used is thinking or thinking, pairing or pairing, sharing, or sharing. TPS type cooperative learning model in increasing student motivation to develop craft knowledge aided by augmented reality vegetable cultivation material. All learning strategies and models that students find and discuss how the construction and contribution of students using teaching materials assisted with augmented reality can be used to help cultivation material.

Keywords: Implementation of Learning, TPS, Augmented Reality

1. Introduction

Learning is a series of physical and mental activities to obtain a change in behavior as a result of an individual's experience in interactions with his environment involving cognitive, affective, and psychomotor. Understanding learning is a process carried out by humans to get a variety of competencies, skills, and attitudes. These competencies, skills, and attitudes are obtained gradually and continuously from infancy to old age through a series of lifelong learning processes. Educational activities are the most critical activities in all-important efforts in the quality of education. Because, through learning activities, educational goals will be achieved, namely in the form of behavior change in students. Education is an activity to achieve a predetermined goal. Education will change the more effective way of thinking that is more practical because
education will change people who do not know to know and who already know to understand and understand.

Craft subjects are developing knowledge and practicing life conversation skills in art and technology in economic marching — this subject in the 2013 curriculum. Workshop subjects are very adaptive to the development of technology that is developing at this time. Therefore it is made of instructional materials assisted by Augmented Reality, especially in vegetable cultivation materials for grade VII in junior high schools by applying the application of cooperative type learning models TPS (Think Pair Share). According to Apriliawati [1], learning activities are activities carried out by students during the learning process. Student activities during learning reflect the motivation or desire of students to learn. According to Paul D. Dierich [2], student learning activities can be classified as follows: (1) visual activities, (2) verbal activity, (3) listening activities, (4) writing activities, (5) drawing activities, (6) metric activities, (7) mental activities and (8) emotional activity.

Table 1. Student Learning Motivation Grid

| No | Syntax | Aspect of Motivation                                                                 | Indicators                                                                                                                                 |
|----|--------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Think  | Thinking about the matter of cultivating vegetables in the teaching materials of the AR-assisted craft with the MenScan Barkot that has been provided | This learning activity is firstly based on educators providing questions and news related to learning so students can think about the issues raised by the teacher. Then the teacher gives time and opportunity for students to write answers to student worksheets that have been provided. |
| 2  | Pair   | Discuss questions and answers after having discussed the barcode in AR assisted teaching materials | At this stage, the teacher asks students to pair up randomly, then discuss with their partners the results of the answers that have been written. Then identify each answer that is most appropriate following the questions given by the teacher. |
| 3  | Share  | Various discussion results throughout the class.                                      | In this activity is the final stage, the teacher asks students to present the results of the answers written from the discussion on each pair that is considered correct in front of the class to convey the answer. |

Source: Ibrahim et al. [3]
Table 2. Steps of the cooperative learning model

| Phase                      | Teacher's Activity                                                                 |
|---------------------------|------------------------------------------------------------------------------------|
| Phase - 1                 | The teacher prepares all learning objectives to be achieved in the lesson, and students learn. |
| Delivering goals and motivating students |                                                                                 |
| Phase - 2                 | The teacher presents information to students through demonstrations or reading material |
| Presenting information    | The teacher explains to students how to form study groups and helps each group to make the transition efficiently |
| Phase 3                   |                                                                                     |
| Organizing students into study groups |                                                                                   |
| Phase 4                   | The teacher guides the study groups as they work on their assignments.              |
| Guiding work and study groups |                                                                                   |
| Phase - 5                 | The teacher evaluates the results of learning about the material that has been learned or each |
| Evaluation                |                                                                                     |
| Phase - 6                 | The teacher looks for ways to appreciate both the efforts and the learning outcomes of individuals and groups |
| Giving awards             |                                                                                     |

Source: Ibrahim et al. [3]

The TPS type of cooperative learning model is one type of cooperative learning that has explicitly established procedures to give students more to think independently or in groups, answer and help one another with other students. This learning method provides opportunities for students to express highly appropriate answers to each other and encourages students to enhance cooperation between students. The steps of the TPS cooperative learning model think Pair Share learning models can provide opportunities for students to think, then answer questions, and help each other and respect one another. Learning strategies in cooperative systems are types of cooperative learning that are designed and created to instill the mindset of interacting between students with other students in the classroom. Students are trained to learn to help each other in large and small groups. In the Thing Pair Share type of learning strategies, the teacher creates interactions that can encourage high curiosity, want to try new things, be independent, and also want to progress.

The teacher provides essential information for students, then students find and find information or answers themselves according to the assignments. The teacher explains material related to the student experience and knowledge. So that students are easy to respond and understand new experiences and make it easier for students to pay attention. Think Pair Share type Cooperative Learning Strategies are carried out in the form of small groups of two to six students with varying degrees of ability to complete group assignments and work together to understand the subject matter, by doing Think, students think individually the answers to the questions given; Pair (pair), students
discuss the answers worked; Share (share), one of the students from the group as a representative delivered the results of the discussion answers. They are learning activities in this Think Pair Share, namely asking a question to students in front of the class that they have to think through their analysis of the answers then discuss with their classmates or at the desk before they determine the final answer that will be read or presented in front of the class. This Think Pair Share activity makes students directly able to solve problems or assignments given by the teacher and find appropriate answers, and students can understand a learning material together and are also able to help one another.

TPS model as a systematic and flexible research method and aims to increase student motivation through repetitive analysis (iterative analysis), design or improve previous designs, and implementation based on collaboration between researchers and implementers in the field (daily life settings), and refers to the design of theories and principles contextually.

2. Result and Discussion

From the implementation of the cycle I, various data was obtained. Namely, student learning outcomes data, observations of student activity during teaching and learning activities using cooperative learning models of Think Pair Share (TPS) type, and data on student responses to Augmented reality-assisted craft learning with cooperative models Think Pair Share (TPS) type.

First Cycle (I)

The following are the results of the first cycle of individual tests.

Table 3. First Cycle Individual Test Results

| No | Total Students | Score Obtained | Percentage | Status   |
|----|----------------|----------------|------------|----------|
| 1  | 3              | 85             | 9,10%      | Complete |
| 2  | 2              | 80             | 6,10%      | Complete |
| 3  | 13             | 75             | 39,39%     | Complete |
| 4  | 14             | 70             | 42,42%     | Not Complete |
| 5  | 1              | 60             | 3,03%      | Not Complete |

Based on the table above shows students who took the test as many as 33 students, students who get KKM scores and also above KKM amounted to 18 students with 54.59% presentations while as many as 15 students who have not finished with the number of presentations 45.46%. Based on the results of the acquisition of the value in the first cycle, it can be concluded that the action activities in the first cycle are not following the expected results. Therefore the second cycle is carried out to get better grades.
Second Cycle (II)

In the second cycle activities carried out in accordance with what was done in the first cycle, teaching and learning activities carried out by using think pair share cooperative learning strategies with vegetable cultivation material. In the learning activities take place students are very concentrated on working on the test assignments given concentration, after that chatting with a friend who is next to his desk to discuss the answers that students have done. After that students work with large groups of 5 to 6 students without discriminating between friends who are smart or just ordinary. The discussion activity was continued by presenting the answers that each group had done by the representative to look forward to reading the answers from the results of the discussion. When one group member presents the answer in front of the class, the other groups pay close attention and give positive responses that do not underestimate or insult the answers of other groups. So the think pair share learning strategy activities can run conducive. After this learning activity is finished, the teacher assesses students both individual values and group values. For individual values, different values for group values must be the same, with no difference. The values in the second cycle are as follows:

| No | Total Students | Score Obtained | Percentage | Status     |
|----|----------------|----------------|------------|------------|
| 1  | 1              | 100            | 3.03%      | Complete   |
| 2  | 3              | 95             | 9.10%      | Complete   |
| 3  | 9              | 90             | 27.28%     | Complete   |
| 4  | 14             | 85             | 42.42%     | Complete   |
| 5  | 3              | 80             | 9.10%      | Complete   |
| 6  | 2              | 75             | 6.06%      | Complete   |
| 7  | 1              | 70             | 3.03%      | Not Complete |

The table above shows that 33 students who passed and completed in taking the test by 32 students with a percentage of 96.97%, and students who completed the test amounted to 1 student with a percentage of 3.03%. So in this second cycle, there is only one student who has not been completed. However, students who have not yet completed the craft lessons will be given guidance and guidance in order to get better grades.
3. Conclusion

Based on the results and also, the discussion can be concluded:

a. The use of think pair share cooperative learning strategies can motivate students to learn and produce better grades, for craft lessons.

b. Think pair share cooperative learning activities can encourage students to work together, share knowledge, help each other between group members.

By looking at student learning outcomes, there are some suggestions to be conveyed, among other

a. In using cooperative learning, think pair share, it is better for the teacher and all students to pay attention to time and use it well so that learning activities run well.

b. During group activities, the teacher should pay attention to all students who are active and do not interact with the group. So that the assessment for groups following what is offered.

4. Reference

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