

The Comparison of Civics Education Learning Outcomes in Collaborative Learning and Cooperative Learning on Cadets of Aviation Polytechnic of Surabaya



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ABSTRACT: This study aimed to compare the learning outcomes of cadets who were treated with collaborative learning and cooperative learning in aviation polytechnic. The research subjects were ninety-three cadets of the Aviation Polytechnic of Surabaya, divided into a collaborative learning class and a cooperative learning class. The analysis technique was used to compare the two groups calculated statistically. The analysis results showed cadets treated with cooperative learning obtained better learning outcomes than with collaborative learning. Cadets preferred cooperative learning because they were used to collaborating in the learning process in the classroom.

KEYWORDS: collaborative learning, cooperative learning, learning outcome, vocational education

I. INTRODUCTION

Civics education is one of the school's subjects that aims to help students develop personality qualities and good attitudes as citizens. Civics education is a subject that focuses on self-formation that is diverse in terms of religion, social, culture, language, age, and ethnicity, to become intelligent, skilled, and character citizens based on civics education and The 1945 Constitution of The Republic of Indonesia.

Civics education also contains a mission and a responsibility to increase public awareness as citizens, understand rights and obligations, and various rules and laws that apply through various available media following the conditions of society. By its function, civics education learning aims to develop the ability to act morally in everyday life.

The teacher factors greatly influence the continuity of the learning process. The success of the civics learning process cannot be separated from the roles of the teacher. The teaching paradigm as so far dominant must be transformed into a learning paradigm in the new learning paradigm. Students who learn must play an active role in compiling their knowledge (Putnam & Borke, 2010). Learning is seen as the compilation of knowledge from concrete experiences, collaborative, reflective, and interpretative activities (Brooks & Brooks, 1999).

Learning outcomes are all effects that can be used as the indicators of the value of the use of learning strategies under different conditions (Berthold, Nuckles, & Renkl, 2007). The same thing was also stated by Dick, Carey, & Carey (2015) stated that the learning outcomes achieved by students are influenced by; 1) the learning method or strategy applied, 2) the formed learning conditions, and 3) the interaction between the learning methods and conditions.

Selection of the appropriate learning strategy will make students carry out their learning activities freely, interestingly, pleasantly, and meaningfully to achieve their learning outcomes. In selecting and applying learning strategies to obtain optimal learning outcomes, teacher skills are needed to design and create learning that can develop students' abilities in understanding the basic concepts and the ability to solve problems contextually (Lyle & Robinson, 2001).

The teacher is the spearhead who is at the forefront of dealing directly with students through learning activities in class or outside the classroom. Teachers are required to carry out their duties professionally. Therefore, professional teachers are expected to apply various learning activities and learning theories, choose and apply various learning methods according to student conditions, create an effective, efficient, and pleasant learning atmosphere, and involve students actively in participating.

To achieve this, teachers must strive to teach students through the best and appropriate learning model to direct, mobilize, and guide students in developing civics' values. Teachers need to design learning how to do it. Sanjaya (2015) said that design is a process and way of thinking that can help create the expected results. In line with the above opinion, Terry (in Sanjaya, 2015: 24) explained that planning or design is a determination of work that has to be carried out by the group to achieve predetermined goals. A learning design is a satisfying way to make a learning activity run well, accompanied by various anticipatory steps to

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minimize the gaps that occur so that these activities achieve predetermined goals (Koper, 2006). Furthermore, Sanjaya (2015) viewed that design is a process to determine "where to go" and how to get to that "place" in the most effective and efficient way.

Based on the researcher's experiences in the civics learning process, the researchers applied to learn models that are often applied in various levels of education, namely the cooperative learning and collaborative learning models, and the differences in learning outcomes obtained from the two models. Cooperative and collaborative learning models themselves are learning models that will involve more students in learning activities so that students are expected to participate actively in class, and the role of the teacher role is only to assist them.

The cooperative learning model is a teaching model where students learn in small groups with different levels of ability (Nahdi & Juju, 2016). In cooperative learning, students are trained to think critically and be tolerant of other students and improve student civics learning outcomes. According to Slavin (2018), cooperative learning is learning where students learn in groups. In this lesson, students are grouped. Each group consists of 4 or 5 students. Group members must be heterogeneous based on cognitive, sex, ethnicity, and religion. They are learning and working collaboratively with a heterogeneous group structure. Lundgren (1994) showed that the learning model, especially the cooperative learning (CL) model, can have a positive effect on students who have low learning outcomes.

Meanwhile, collaborative learning is a method of learning that involves several students joining in groups that acknowledge differences in the abilities and thought contributions of each individual (Panitz, 1999). Laal & Laal (2012) added that collaborative learning builds the capacity to tolerate or resolve differences and build opinions in a group. In groups that the educator has determined, the children can collaborate with the existing facilities. With the hope, each student can communicate with one another. With active communication between students, good relationships and mutual respect will be established.

Collaborative learning emphasizes specific tasks and sharing tasks in group work, compare conclusions and group work procedures, and provides greater flexibility to students in group work ((Dillenbourg, 1999). The collaborative learning model allows every student to understand all parts of the discussion. The research results explained that collaborative learning is a group learning process in which each member contributes information, experiences, ideas, attitudes, opinions, abilities, and skills to enhance all members' understanding.

The researcher was interested in investigating implementing collaborative and cooperative learning models on civics learning outcomes based on the description above. The formulation of the research problem was whether there was an effect of applying collaborative and cooperative learning models on learning outcomes in civics subjects. Related to the problems described in the problem formulated above, the objective of this research was to determine the effect of implementing collaborative and cooperative learning models on civics learning outcomes.

II. METHOD

In order to get optimal results in research, the researcher must use appropriate research methods. In terms of this research problem, this research was an experimental study with The Static-Group Comparison Design.

This study compared the implementation of collaborative and cooperative learning models in the control class and investigated the effects of each learning model on learning outcomes. The subjects of this study were 93 students, which were divided into 46 students in the experimental class and 47 students in the control class. The data analysis technique was calculated statistically by comparing the two groups.

III. RESULT AND DISCUSSION

The results showed cadets who were taught using the cooperative learning model obtained a better average (86.471) than cadets taught the collaborative model (84.344). Research by Panhwar, Gopang, Chachar, & Baloch (2017) showed that the cooperative learning model is more effective in learning English as a second language (ESL) than the collaborative learning model. In the cooperative learning method, cadets are more developed in interacting and being successful in experiences between cadets, while the collaborative learning model is superior in concept. Cooperative learning is more effective in task achievement and higher-order thinking skills, develops peer academic norms, increases self-esteem, increases time on assignments, creates caring and altruistic relationships, and reduces anxiety and prejudice (Oxford, 1997). The meta-analysis results from (Johnson, Johnson, & Stanne, 2000) showed that cooperative methods could improve cadets' learning outcomes and competitiveness.

The cooperative learning model provides cognitive and affective empathy effects mediated by increased relationships with friends (Ryzin & Roseth, 2019). Cooperative learning emphasizes group work and collaboration to improve the interpersonal skills of cadets and increase the experience in group learning, which has an impact on a deeper understanding of the cognitive and emotional states.

Cooperative learning improves cadets' communication skills and enables them to build teamwork and problem-solving skills. More than 90% of cadets agree that flipping classes with cooperative learning allow them to expand their skills. Munir, Baroutian, Young, & Carter (2018) explain that cooperative learning can improve cadets' communication skills and enable them

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to build teamwork and problem-solving skills. Based on the research results by Aziz & Hossain (2010), cooperative learning improves learning outcomes compared to conventional learning. Butera & Buchs (2019) explained that the cooperative model is proven to have an effect on learning outcomes when compared to competitive and individualistic methods. Ahn & Nelson (2018) reported that cadets prefer cooperative learning in courses and working in teams.

Cooperative learning is advantageous in the interaction between teachers and cadets so that students succeed in learning (Kimmelman & Lang, 2018). The success in cooperative learning is due to completing tasks, answering questions, or success in quizzes that are carried out individually after the team prepares together, where collaboration is the heart of cooperative learning (Anderson, 2019). Cadets who learn using cooperative learning produce higher quality music and show a higher interest than the control group (Egger, 2019). Raviv, Cohen, & Aflalo (2017) showed that students in laboratory learning prefer cooperative learning based on their research.

Collaborative learning, in general, provides many forms of assessment opportunities and reduces classroom anxiety by creating new situations and through interaction, teachers gain a better understanding of each student's learning style and how he or she performs, and opportunities are created where teachers can provide additional guidance and counseling for students (Laal & Ghodsi, 2012). However, Kuhn (2015) expressed his opinion about collaborative learning, which is opaque and has a nuance of cooperation, where it has a homogeneous effect, and student behavior is very different between groups. Moreover, collaborative learning causes a decrease in the quality of thinking because too much confidence in group interactions and the quality of group performance can be related to its most capable members' performance. Rote learning benefits collaborative learning rather than conceptual learning (Pai, Sears, & Maeda, 2014; Kuhn, 2015). Panitz (1999) revealed that when students hear collaborative learning, they automatically take the context of the workgroup, recall their unpleasant experiences with a workgroup or study group, and reject the idea of collaboration as an unworkable approach that seeks to shift the teaching load from teachers. Pai, Sears, & Maeda (2014) showed the results of a study that small group learning has a positive effect on student academic success. Effective small group learning interactions can also be structured with scripts used to determine the role of group members or the sequence of activities they carry out. Scripts are designed to enhance specific cognitive behaviors related to learning, such as summarizing, providing explanations, or asking questions.

IV. CONCLUSION

Collaborative and cooperative learning techniques trained the cooperation and responsibility of students by directly carrying out investigations, presenting them, and then evaluating the results of their group work. Several things could be concluded from this research; namely, schools need to reconstruct the learning processes in the classroom that have been going so far. Students need to be given work insight, collaboration, and cooperation to cultivate their souls with mutual respect, respect, tolerance, responsibility, honesty, and openness. From the results of data analysis and discussion, it can be concluded that the application of both collaborative and cooperative learning models had an effect on improving student learning outcomes.

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