Research Article

Implementation of Collaborative Learning Based on Environmental Projects Building Solution of Students Learning Cracter for Covid-19 Pandemic Time in Padangsidimpuan City

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Abstract.

This study aims to determine the implementation of environmental project-based collaborative learning as a solution to building student learning character. The Covid-19 pandemic period had a negative impact on the learning process of students with less awareness of students in studying at home and the use of the surrounding environment for learning media. Environmental project-based collaborative learning will build new enthusiasm and awareness in learning in the home environment. The research method used was experimental. Sampling was done bymethodrandom sampling. The problem in this study is that the character of student learning is reduced during the Covid-19 pandemic in Padangsidimpuan City. Learning challenges for students during the Covid-19 pandemic are by studying online. The results of character research and student awareness are very good with the application of environmental project-based collaborative learning. Student learning character improves after environmental project-based collaborative learning. There were changes in student learning during the Covid-19 pandemic after collaborative learning treatment. The conclusion is that collaborative learning based on environmental projects is very good to be used to develop the learning character of students during the Covid-19 pandemic in Padangsidimpuan City.

Keywords: Collaborative learning; covid-19 pandemic; learning media

1. Introduction

The learning process carried out by students with distance learning during the Covid-19 pandemic is a challenge to build a character for independent learning at home. The learning process that was originally carried out face-to-face with lecturers on campus will turn into distance learning or online. The Covid-19 pandemic will provide learning challenges that can provide solutions for independent and fun learning. In Indonesia,

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the government made a sudden decision by closing all kinds of activities in schools including learning activities and moving them to learning at home through distance education [1]. Through the Ministry of Education and Culture implementing an online or online learning policy to slow the spread of Covid-19, while ensuring that learning activities continue even in pandemic conditions. The Minister of Education and Culture of the Republic of Indonesia issued "Circular Letter Number 3 of 2020 concerning Prevention of Covid-19 in Education Units" [2]. This virus is contagious and spreads very quickly to all corners of the world, and takes many lives, including in Indonesia. To slow the spread of this virus, the government urges all Indonesian citizens to carry out social distancing, so that almost all economic, social, cultural and educational activities are reduced or even temporarily suspended until an undetermined time limit. For education, the government has officially informed that all forms of educational activities, from the level of basic education to higher education, will be stopped starting March 16, 2020 until further notice, and learning activities are still carried out by means of distance learning (PJJ), namely between teachers and students are at different locations through online media (3). The challenge of the covid-19 outbreak has had a huge impact on the learning process of students in the Padangsidimpuan city area. Students who are accustomed to taking lectures face-to-face are faced with distance learning or online learning. The Covid-19 pandemic has an impact on student learning psychology, not infrequently students leave the lecture process with lecturers and there are no reports of assignments done by students with difficulty providing evaluation and feedback with the distance learning process between students and their lecturers due to the Covid-19 pandemic.

The aim of national education is a formulation of the quality of Indonesian people that must be developed by each educational unit. Therefore, the formulation of the goals of national education becomes the basis for the development of national culture and character education. The contents contained in the national education goals as well as the problems faced by the world of education is now clear that education is not only to build the cognitive domain or domains that include the activities of the brain (mental) oriented thinking skills, but also form a sphere psychomotor related skills(skills)or the ability to act after a person receives a certain learning experience and builds an affective domain that includes behavioral traits (characters) such as feelings, interests, attitudes, emotions and values. Character education through the School Literacy Movement does not become a trend when it is only used as a commodity, promotion in the world of education. The first and foremost character education, is not carried out in formal education only but in information education in the family,

extends to society and the nation. Character education is always related to issues of integrity, examples and behavior. Integrity is able to bring out various aspects of the main character development such as honesty, discipline and responsibility. Reading activities, observing various phenomena and being able to carry them out. Character education is always a process and is never done by individuals [4]. Education in Indonesia is considered to have no character and has not been able to produce quality citizens, both academic achievement and good behavior. This can be seen from the spread of bad attitudes to life, frequent violence, deviations from norms by students, and the dwindling and noble attitudes [5]. Education with national character and culture based on raising local excellence is very interesting to study further comprehensively. Thus, it is hoped that the concept of an educational model will be a transfer of ideas that can be considered as a type of character education model that is being programmed by the government of the Republic of Indonesia. [6]

One learning model that makes students more active is the environmental project-based collaborative learning model. This learning model is a combination of collaborative and project-based learning models. Pembelajaran collaborative project-based assessment to encourage students to better understand the material and create a learning-oriented work. So far, students tend to be passive and just wait for an explanation of the material from the lecturer so that students' understanding of subject competences is not optimal [7]. Lecturing with a project model means that students carry out projects collaboratively, and in the end produce work products that can be presented to others [8]. Project-based learning not only examines the relationship between theoretical information and practice, but also motivates students to reflect on what is learned in learning in a real project. Students can work in real terms, as if in the real world that can produce products realistically. Since the nature of project work is collaborative, the development of these skills should be aimed at all teams [9]. Lecture learning by optimizing the use of computers through project-based collaborative learning. Broadly speaking, the activities at the action stage include: (a) Providing material which is a prerequisite for conducting time series data analysis; (b) Providing examples of time series data relating to various cases that have developed in Indonesia to be analyzed together using computers; (c) The formation of groups which aims to make students work collaboratively and there is communication between students in completing projects; (d) Determination of tasks / projects that must be done by the group; (e) At the beginning of the assignment, the lecturer explains an idea about the project to students and uses that idea as an example in explaining the stages of project work and how to evaluate it. The lecturer conveyed the instructional objectives of the

project related to problem-solving abilities and explained the time series modeling concept contained in the project. The project is directed at the problem of time series data in Indonesia. In the second project, the lecturer assigns problems using a more complex theory with a wider data coverage; (f) Preparation of reports by the group by focusing on the results of analysis using computers and software to model and predict series data. A written report regarding the progress of the project as well as the conclusions obtained based on the project being undertaken; (g) Presentation and evaluation of report results. As the final stage of a group project, the lecturer evaluates the student's work and confirms what students have learned while working on the project; and (h) Individual final project in the form of working on a time series data analysis project to determine the level of student understanding of the application of statistics in analyzing time series data [10]. The learning model is an environmental project-based collaborative learning model that is able to buildnoble character values students' and improve learning outcomes.

2. Methods

Method used in this research is quantitative research with the application of a pre-experimental design model where the experimental results are influenced by other factors outside the study. The model design that will be applied is the single group pretest posttest design model. Where the measurement is done before the treatment is given to a group, and after the treatment the measurement is done to the same group. This model is commonly used to evaluate education policy by carrying out a number of intervention practices and measuring its effectiveness [11]. According to Robson et al. (2001) the measurement results of the pretest-posttest model are more effective in demonstrating the direct impact on a short period of time. The visible effect is measured by comparing the conditions before and after the treatment is given. If there is an increase in the percentage of conditions after treatment, the test carried out can be considered effective. On the contrary, if the percentage before the intervention was carried out was higher then the test was considered ineffective [12].

3. Results and Discussion

The results show that students who are given course materials by applying a collaborative learning model based on environmental projects can improve student learning outcomes and improve student learning character. The character of student learning

is different from the learning model before applying the environmental project-based collaborative learning model.

As a technology for learning (technology for instruction), collaborative learning involves active participation of students and minimizes differences between vulnerable individuals and often occurs in the form of personal and inter-group conflicts. Collaborative learning has increased the educational momentum of two converging forces, namely: (1) the realization of practice, that life outside the classroom requires collaborative activities in real life; (2) foster awareness of social interaction in an effort to realize meaningful learning. In addition, character building can also be realized in collaborative learning because in collaborative learning students are required to be active through learning by doing so that students learn based on intrinsic motivation to work together in solving existing problems, especially for understanding material and case studies that can be learned. [13]. Interaction behavior between students in collaborative learning settings requires students to determine group goals and how the process must be followed. The existence of giving the burden of responsibility to students for completing all assignments encourages students to have initiative and creativity, although it could be that in the process of working on assignments, these students will ask questions and ask for suggestions from other parties. Students are encouraged to have responsibility and integrity when doing assignments. Giving assignments as a whole also encourages students to get used to thinking and understanding the material as a whole, not just partially. With these activities, students are encouraged to form an understanding and character of responsibility [14]. The collaboration expressed by these various experts, it can be concluded that the notion of collaborative learning is a learning strategy in which learners with stratified variations work together in small groups towards one goal. In this group, students help each other. So in situations of collaborative learning there is an element of positive dependency to achieve success [15].

There are different models of environmental project-based collaborative learningwith a learning model before being applied collaborative project-based environment on student learning achievement. The conclusion is that the environmental project-based collaborative learning model provides higher student learning outcomes.

Collaborative learning is of a higher intensity than cooperative learning. Physically, collaborative learning has no different form or formula with cooperative learning, the difference lies in the intensity of the interaction, the content of the activity and the implications it causes for each member of the learning group, namely the sense of interdependence and responsibility that is supported by the independence of each

individual involved in learning through social interactions. All traits and forms and characteristics of cooperative learning are preconditions for collaborative learning [16].

The influence of the collaborative learning model based on environmental projects on the character of student learning in the lecture process provides a better change. Based on the decisions obtained, it can be concluded that students who take lectures with a collaborative learning model based on environmental projects will see that the level of awareness and character of students in learning is very high.

4. Conclusions

Conclusion is to be able to provide an overview of what was studied from the results of the research conducted and its studies. The research conclusion is that there is a significant difference between the experimental class and the application of the collaborative learning model based on environmental projects with the learning model used by lecturers in the control class towards the learning character of students during the Covid-19 pandemic. Student learning outcomes in the experimental class use a collaborative learning model based on environmental projects than the control class with the learning model carried out by students and lecturers in the control class. Based on this, the application of environmental project-based collaborative learning can be used as a solution to build student learning characteristics amid the challenges of the Covid-19 pandemic in the city of Padangsidimpuan.

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