

Implementation Culturally Responsive Teaching Approach to Improve Student Learning Outcomes

Siskawati¹, Tri Ayu Lestari¹, Baiq Sri Handayani², Hadratullaili²

¹Program Pendidikan Profesi Guru Prajabatan, Faculty of Teacher Training and Education, Universitas Mataram, Mataram, West Nusa Tenggara, Indonesia

²Sekolah Menengah Atas Negeri 2 Labuapi, West Lombok, West Nusa Tenggara, Indonesia

Corresponding author: triyulestari@unram.ac.id

Abstract

Learning using an approach that suits student characteristics will influence learning outcomes. Soan approach is needed that suits the students' abilities. One suitable approach is CRT (Culturally Responsive Teaching) by applying the PjBL (Project Based Learning) model which is relevant to students' lives, from characteristics to students' culture, which will greatly influence student learning outcomes, so an approach is needed that suits students' learning needs. relevant and contextual. The CRT approach is a learning approach that recognizes the importance of students' cultural references in all aspects of learning. This research aims to improve the learning outcomes of class XII IPA 1 students by applying the CRT approach. This research was carried out by conducting classroom action research which was divided into two cycles. Data was obtained from observation, pretest and posttest cycles 1 and 2. Data analysis techniques in this research used qualitative and quantitative analysis. The results of research using the application of PjBL integrated with the CRT approach in cycle 1 reached 75.00 and in cycle 2 it increased to 85.00. This shows that the application of the CRT approach in the learning process can improve the learning outcomes of class XII IPA 1 students on Biotechnology lesson.

Keywords: Learning Outcomes, Culturally Responsive Teaching, Classroom Action Research.

1. Introduction

Education is the first step to bring about change. The important role of education is to create human beings who are qualified, morally intelligent and have character. This is as stated by (Riyanto 2009), education is an activity to humanize humans themselves, human beings who are cultured. Therefore, the government has the responsibility to create a society that is faithful and devout, capable and creative in knowledge, also independent and responsible for their lives. In order to make the nation's life more intelligent, improving the quality of education is very important for the development of all aspects of human life (Hermanto, 2020). The national education system must always be developed to meet needs and changes.

Education has an important role in ensuring the development and survival of a nation because education is a forum for improving and developing the quality of human resources. Teachers have a role in the success of the learning process. The teacher's ability to determine and apply learning models and methods that suit the student needs that will

influence the achievement of complete student learning outcomes (Ifianti & Fitriani, 2022).

The learning process is closely related to learning outcomes because learning outcomes become a benchmark for knowing whether the learning objectives have been achieved or not. According to (Masruroh & Reza, 2015), learning outcomes are the abilities obtained by students after going through learning activities, regarding to cognitive, affective and psychomotor aspects which are then expressed in the form of scores after an evaluation of the material previously studied. The independent learning policy is expected to provide independence to each educational unit to innovate by adapting the conditions of the learning process to culture, local wisdom, socio-economics and educational infrastructure. Learning is exploring the potential of teachers and students to innovate and improve the quality of the teaching and learning process independently. Therefore, effort that can be made to overcome this problem is by implementing a Project Based Learning (PjBL) learning model based on local culture or Culturally Responsive Teaching (CRT).

PjBL is a learning model where students directly gain experience and create projects (Ardianti, Pratiwi, & Kanzunudin, 2017). The PjBL learning model can collaborate several students' abilities, which are abilities in the fields of science, mathematics and literacy simultaneously (Kristanti and Subiki, 2019). Meanwhile, the CRT learning approach is an approach that can develop the potential for student diversity by exploring students' academic and psychosocial abilities (Gay, 2018). CRT makes learning meaningful and related to students' lives (Villegas & Lucas, 2007). New paradigm learning requires the learning process to be in accordance with student needs and characteristics. Teachers must know how students are, especially in the society where they live.

Knowledge becomes contextual learning and relevant experiences, making it easier for students to connect their daily experiences with what they do in class (Harding-DeKam, 2014). In this way, learning outcomes will be further improved. (Turhusna & Solatun, 2020) stated that in the 21st century high quality human resources are needed who have expertise, able to work together, think at a high level, creative, skilled, understand various cultures, able to communicate and learn throughout life (long life learning).

The concept of local culture or the use of the CRT approach is currently not widely integrated with existing subjects in schools. We must protect local culture so that it is preserved by the nation's generations, especially students at school. Biology learning must be taught contextually, one of which is by relating the local culture of each student's region (Suastra, 2010). Thus, learning biology is very beneficial for students and the wider community.

Based on the results of observations carried out in Class XII IPA 1 SMA Negeri 2 Labuapiduring guided learning, the results obtained were that in the learning process learning problems were found where students' interest in learning was still lacking

because they were still applying conventional methods of learning. Considering the importance of learning outcomes in student learning completeness. So learning outcomes must still be considered. Responding to this reality, improvements must be made in classroom learning practices, one of which is by using the Project Based Learning (PjBL) model which is integrated with the CRT approach.

This learning model further develops students' creativity skills in working on projects related to the students' own culture, which can produce something. In its implementation, this model with a CRT approach to biotechnology material is expected to improve student learning outcomes and provide great opportunities for students to make decisions in choosing topics, conducting research, and completing a project based on their creativity.

2. Material and Method

This research was conducted in Class XII IPA 1 SMA Negeri 2 Labuapi in even semester with a total of 21 students, consisting of 13 female students and 8 male students. This research uses the classroom action research or Penelitian Tindakan Kelas (PTK) method. The PTK used is a cyclical research model. This research was carried out over two cycles. Each cycle consists of several stages, namely the planning, action, observation and reflection stages. The data analysis technique in this research used qualitative and quantitative analysis. Qualitative data analysis was carried out by observation of the learning process which was using the PjBL model. Quantitative data analysis was carried out using pre-test and post-test to determine the student learning outcomes.

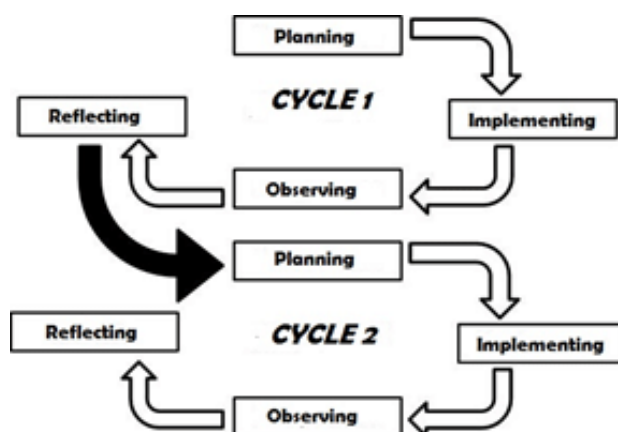


Figure 1. The Diagram of Classroom Action Research Cycle

The classroom action research model can be said to be repeated experimental research or continuous experimentation depending on the teacher's satisfaction with the results obtained. The four stages in PTK form 2 cycles starting from planning, implementation, observation and reflection (Arikunto, et al, 2019).

a. Planning

Activities that carried out at the planning stage are: a) preparing a learning implementation plan or Rencana Pelaksanaan Pembelajaran (RPP) which contains the steps of the learning process using the PjBL model and student worksheets or Lembar Kerja Peserta Didik(LKPD), and b) preparing test questions that will be given at the end of each cycle.

b. Implementation and Observation

The action and implementation stages are carried out simultaneously. In this case the researcher acts as a teacher who delivers learning based on the RPP. The initial implementation of the research was carried out by giving initial tests to students, then continued by providing treatment by applying the PjBL learning model. Observations are made during the learning process. Observations were carried out collaboratively between researchers and observers. Observers in this research were tutor teachers or Guru Pamong(GP), field supervisors or Dosen Pembimbing Lapangan (DPL), and colleagues.

c. Reflection

At this stage, the researcher collects data that has been obtained during observation, in the form of teacher activity observation sheets and student test results. The observation data is analyzed and then reflected on by discussing with the observer. Reflection activities are very important activities that aim to evaluate the results of actions that have been taken by seeing what still needs to be corrected and improved. This action is a form of self-evaluation. From the results of the reflection, a solution is sought and then continued in the next cycle. Each of these stages is carried out repeatedly in the next cycle until the problems faced can be resolved and consistent results are obtained (Setiawan, A. 2014).

3. Results and Discussion

3.1. Results

Based on the results of Classroom Action Research, it was carried out to improve the learning outcomes of class XII IPA 1 SMA Negeri 2 Labuapi on biotechnology material by applying the Culturally Responsive Teaching (CRT) approach integrated with the Project Based Learning (PjBL) model. Initial data on the condition of class XII IPA 1 students was obtained by the author through observation and pre-test. Based on the results of observations and pre-tests as pre-action, several problems were found in biology learning in the class. One of the problems that must be overcome is the low student learning outcomes with a class average of 55.00. Based on the results of observations carried out, it showed that there was no learning activities carried out by integrating the culture inherent in students. This is in line with the opinion of (Inayah, 2023) who stated that the effectiveness of the Culturally Responsive Teaching (CRT) approach greatly influences student learning outcomes.

The results of the data from the pre-cycle were used as a reference by the author to take action by implementing learning with a Culturally Responsive Teaching approach which was carried out in 2 cycles. This Culturally Responsive Teaching (CRT) approach not only prioritizes academic achievement, but also maintains students' cultural identity. This understanding confirms that CRT is a learning approach that emphasizes the relationship between education and the socio-cultural dimensions of students. With an integrated cultural approach in learning, it is hoped that students will become more interested in learning because learning is relevant to culture and daily life activities so it is hoped that it can have an effect on improving learning outcomes in Biotechnology material. Through this Culturally Responsive Teaching (CRT) approach, teachers as educators try to integrate the experiences students have in the learning process with culture and their daily lives (Arends, 2008).

The following is data regarding the comparison of student learning outcomes in pre-cycle, Cycle I and Cycle II activities, as well as the results of the stages in the learning cycle which can be seen in Table 1 and Table 2:

Table 1. Comparison of Learning Outcomes of Class XI IPA 1 SMA Negeri 2 Labuapi Students in Pre-Cycle, Cycle I and Cycle II

Phases	Average Value of Student Learning Outcomes
Pre-cycle	55,00
Cycle I	75,00
Cycle II	85,00

Table 2. Stages of the Learning Cycle

Cycle	Planning	Implementation	Observation	Reflection
I	Preparation of RPP using the Project Based Learning model	Implementation of learning that has been designed in the RPP with a predetermined Project Based Learning model	The CRT approach has been implemented well, but students still have difficulty connecting culture with learning material	Students' reactions to the learning process using the CRT approach were very good
II	Preparation of RPP using a Project Based Learning model integrated with the CRT approach	Implementation of learning that has been designed in the RPP using the CRT approach refers to student culture	By referring to the culture of the students themselves so students could be more enthusiastic in learning	Students' reactions to the learning process using the CRT approach were very good

3.2 Discussion

Project Based Learning (PjBL) is a learning model that involves students in creative and innovative thinking that emphasizes contextual learning through complex activities,

which involves students in the learning process in solving problems. Pramudita (2018), it is proven that the results of implementing PjBL are that the quality of student learning is better, such as students becoming more creative, cooperative and active.

A good Biology learning can be realized if students and teachers can collaborate with each other to achieve learning goals. Teachers must be able to adapt to students' environmental conditions, so that implementing learning in the classroom is student centered (Trinova, 2013).

Based on the data in Table 1 regarding the comparison of student learning outcomes, it shows that the results of applying learning with the Culturally Responsive Teaching (CRT) approach to the learning outcomes of Biotechnology material for class XII IPA 1 students at SMA Negeri 2 Labuapi have increased significantly. These results were obtained from the pre-cycle and cycles which experienced significant differences. If the culturally integrated PjBL model is implemented in schools, it will have a positive impact and be able to improve various aspects of students' abilities (Ramdani, 2018).

Based on the results of learning using the Culturally Responsive Teaching approach for students in class experienced an increase from the pre-cycle the average value of student learning outcomes was 55.00 and after the first cycle to 75.00. Meanwhile, after the second cycle was carried out, the class average increased to 85.00. In the first cycle, the average student learning outcomes increased quite well, but still could not reach the minimum completeness criteria or *Kriteria Ketuntasan Minimal (KKM)*, namely 75.00. Some of the findings that became material for reflection in cycle I were that students still had difficulty in linking cultural values with learning materials on the answer sheet for the learning outcomes evaluation tool used. Data on student learning outcomes in cycle II experienced a significant increase in learning outcomes for Biotechnology material and achieved the minimum completeness criteria with a class average score of 85.00. Learning activities with a cultural approach that is inherent in students provide motivation for students to study.

Based on the data in Table 2, it can be seen that the first cycle of the planning stage was carried out by preparing a lesson plan using the CRT approach which was based on the results of observations and pre-tests to improve the learning outcomes of class XI IPA 1 students at SMAN 2 Labuapi on Biotechnology material. At the learning implementation stage that has been designed in the RPP using the CRT approach, learning is carried out based on a predetermined culture. At the observation stage, the CRT approach has been implemented well, but students still have difficulty making the connection between the specified culture and the learning material. This is based on students' lack of literacy regarding their culture and at the reflection stage, students' reactions to the learning process using the CRT approach were very good. This can be seen from the enthusiasm of students in participating in the learning process even though there are still several obstacles. Students think that learning with the CRT approach is very enjoyable because it is relevant to their culture. The planning carried out in cycle II is based on the obstacles and weaknesses found in cycle I from the results of observations of the implementation

of learning using the CRT approach so that the obstacles and weaknesses in cycle I no longer occur, so the author made every effort to control learning conditions by learning referring to the culture that is owned by the students themselves, so that students became more enthusiastic in learning and would result in increased student learning outcomes.

The results of the actions from these two cycles can be seen that the application of learning with a Culturally Responsive Teaching (CRT) approach could improve student learning outcomes. This is in accordance with research conducted by (Hardiana, 2023), that special treatment is needed in learning to increase students' interest in studying. Increasing interest in learning will also have an impact on improving student learning outcomes. The author proved that the Culturally Responsive Teaching (CRT) approach could help to improve student learning outcomes because students studied more meaningfully and learning is more relevant to the life and culture inherent in the students themselves. In this way, students' motivation and interest in learning will increase and will influence the improvement of learning outcomes.

Conclusion

The implementation of the integrated Project Based Learning (PjBL) learning model with an approach (Culturally Responsive Teaching) carried out over two cycles in this research could improve the learning outcomes of class XII IPA 1 SMAN 2 Labuapi on Biotechnology material which could be seen from the increased interest and learning activities of students due to learning that is integrated with the culture of the students themselves. This is based on an increase in the average learning outcomes from pre-action by 55.00, increasing to 75.00 in cycle I and 85.00 in cycle II, thus proving that learning with a Culturally Responsive Teaching (CRT) approach could improve student learning outcomes.

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