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INCREASING MATHEMATICS LEARNING ACTIVITY AND OUTCOMES USING A CULTURALLY RESPONSIVE TEACHING APPROACH

Wiwit Yulianti^{1*}, Darto², Erni Widiyastuti³, Gunawan⁴, Jaka Wijaya Kusuma⁵, Winda Istanti⁶

^{1,3,4}Universitas Muhammadiyah Purwokerto

²Universitas Islam Negeri Sultan Syarif Kasim Riau

⁵Universitas Bina Bangsa

⁶SD Negeri 2 Cilangkap

*Email: wiwit.yuli@gmail.com

ABSTRACT

This study aims to determine the increase in activeness and learning outcomes using a culturally responsive teaching approach in grade III students of SD Negeri 3 Karangtengah. This research was carried out in 2 cycles, each cycle consisted of 2 meetings. Each meeting consists of 4 stages, namely planning, implementation, observation/observation, and reflection. The data analysis technique used in this study is a quantitative data analysis technique using tests and qualitative data analysis techniques through observation. The results of the classroom action research using the culturally responsive teaching approach were proven to improve student learning outcomes, where based on the test results showed that the percentage of classical completeness in the first cycle increased to 66.65 in the second cycle to 79.8. In addition, an increase also occurred in the percentage of student activity level in the first cycle reaching 49%, increasing in the second cycle to 59%.

Keywords: Culturally Responsive Teaching, Student Learning Outcomes, Learning Activity.

INTRODUCTION

Education is a conscious effort to realize the potential of students' human resources by encouraging and facilitating learning activities. Education is a series of communication activities that aim to be between adult human beings and the student face-to-face or by using media in order to provide assistance to the development of the child as a whole (Rahman et al., 2022). Currently, education in Indonesia is developing more rapidly than before. The independent curriculum has mostly been implemented in schools so that education can keep up with the times. The independent curriculum paradigm refers to schools and teachers in designing the curriculum according to the characteristics and needs of students. Learning with the concept of independent learning prioritizes the interests and talents of students, and gives independence for teachers and schools in compiling, developing, and implementing the curriculum based on the abilities and needs of the students so that learning outcomes can foster creative attitudes and the learning process becomes more enjoyable (Fadillah & Listiawan, 2024; Scott, 2018). Learning using an independent curriculum aims to make students have an understanding of something and make students think critically, as well as produce achievements from their learning. To find out these achievements, it is necessary to hold an evaluation with the aim of finding out a person's abilities after participating in the

learning process. Learning achievement cannot be separated from learning activities because learning achievement is the result of learning activities which are learning processes.

Learning achievement is the result achieved from the results of practice, experiences that are supported by awareness. Learning achievement is the result of changes in the learning process. The government through the Ministry of Education and Culture has provided various learning models and approaches that can be applied in the independent curriculum as an effort to meet learning needs that adjust the abilities and needs of each student, one of which is by using the Culturally Responsive Teaching approach (Hidayah et al., 2024). The CRT approach is a learning approach that pays attention to the diversity of cultures and backgrounds of students in the learning process (Riski & Puspitorini, 2025; Khasanah, 2023). In this approach, teachers integrate learning materials with local cultural content into learning. By understanding and integrating cultural context in the learning process, CRT aims to improve learners' engagement, understanding, and learning achievement. In addition, students are also expected to better understand their own culture and be able to appreciate other people's cultures (Pane, 2020).

Based on the results of observations, learning mathematics is still a problem for students because mathematics is one of the subjects that is considered difficult by students because of its mathematical and many calculations. The problem found by the author when learning mathematics took place in grade III of SD Negeri 3 Karangtengah was that the students' learning achievement was relatively lacking. This is due to the lack of student involvement in the learning taking place. Teachers do not use learning media that can make it easier for students to receive learning materials. Based on the above background, it is necessary to increase the learning achievement of students. Therefore, the author is interested in researching with the title "Efforts to Increase Mathematics Learning Activity and Outcomes Using a Culturally Responsive Teaching Approach for Elementary School Students".

METHODS

Classroom action research (PTK) is a process of assessment through a cycling system or cycle of various learning activities. Kemmis and Mc Taggart stated that the PTK procedure is carried out with 4 main activities or stages, namely *Plan* (planning), *Stuart T* (action), *Observation* (observation), and *Reflection* (reflection) (Caron & Markusen, 2016). Data collection includes learning outcome data taken through tests at the end of each cycle, KBM situation data is taken through classroom observation, reflection data and changes that occur in the classroom are taken through success journals made by teachers, and learning implementation data is taken through observation of research teachers by pamong teachers. The quantitative data analysis technique in the form of the average learning outcomes of students in this study was carried out data analysis using descriptive statistical techniques by determining the average, highest score and lowest score.

RESULTS AND DISCUSSION

This research is a class action research consisting of cycle I, and cycle II. This research yielded significant results, namely increasing student activity and learning outcomes by using the

Culturally Responsive Teaching approach in grade III students of SD Negeri 3 Karangtengah. The improvement that occurred can be seen in the following table 1.

Table 1. Comparison of Student Learning Outcomes in Cycle I and Cycle II

Initials	Formative Cycle 1	Formative Cycle 2
CHAPTER	60	80
ANR	80	82,5
ARS	73	92,5
ANI	61	72,5
AZF	80	80
AF	60	82,5
AIU	55	90
ASK	80	82,5
ARS	65	80
DPM	60	82,5
DPH	73	80
ER	55	82,5
SNF	70	87,5
HKL	80	80
HR	60	80
HA	55	62,5
IAR	65	80
JR	65	77,5
KAR	55	80
MORE	63	70
NTR	60	90
NDR	70	77,5
OAR	58	80
RAF	75	77,5
DATE	62	90
SNF	85	72,5
SAM	60	60
WDP	85	80
ZZM	73	82,5
NAR	75	80
RM	60	77,5
AB	55	80
2133	2552,5	
66,65625	79,76563	

Based on table 1 above, we can see together that learning by applying the Culturally Responsive Teaching approach increased from 66.65 in cycle I to 79.8 in cycle II. The implementation of learning with the Culturally Responsive Teaching approach not only has a positive impact on the average value of student learning outcomes, but also increases in the percentage of students' activeness in participating in learning activities. This is because by applying the Culturally Responsive Teaching approach, it succeeds in creating inclusive and student-centered learning, while teachers only become facilitators during learning activities. In line with the results of research by Siswanto et al. (2025) and Alman et al. (2025) who explained the same thing that the CRT approach helps to improve student learning activity and learning outcomes. We can see the percentage increase in the level of student activity in table 1 below:

Table 2. Comparison of Student Learning Activity in Cycle I and Cycle II

Initials	Cycle 1	Cycle 2
CHAPTER	30%	40%
ANR	25%	40%
ARS	25%	45%
ANI	40%	60%
AZF	55%	55%
AF	20%	60%
AIU	20%	60%
ASK	40%	40%
ARS	25%	60%
DPM	45%	45%
DPH	60%	60%
ER	25%	40%
SNF	20%	60%
HKL	25%	60%
HR	40%	40%
HA	70%	70%
IAR	40%	40%
JR	70%	70%
KAR	30%	60%
MORE	70%	70%
NTR	65%	65%
NDR	60%	60%
OAR	60%	60%
RAF	75%	75%
DATE	60%	60%
SNF	75%	75%

SAM	75%	75%
WDP	70%	70%
ZZM	70%	70%
NAR	70%	70%
RM	60%	60%
AB	60%	80%
Average	49%	59%

Based on table 2 above, we can conclude that the level of student activity has increased quite significantly in the second cycle. In the first cycle the percentage of student activity level reached 49%, then in the second cycle students were able to reach 59%. The results prove that applying the Culturally Responsive Teaching approach has a positive impact on students. Although in cycle II there are still 3 students who have not been able to reach the predetermined KKTP score limit. This happens because the student needs more handling. In addition to learning outcomes, students' activeness in learning activities using the Culturally Responsive Teaching approach has also increased. This is because the characteristic of the CRT approach is that the learning material is associated with the background and culture around the students, so that students will feel more appreciated. These results are in line with the research of Salsabila et al. (2025) and Sukmanasa et al. (2025) explaining that the CRT approach can directly have a positive impact on student learning outcomes and make learning more active and interactive. From the explanation above, it can be obtained that by applying the Culturally Responsive Teaching approach, it can increase the average score of student learning outcomes in the Numbers of Numbers material up to 1,000 in grade III students of SD Negeri 3 Karangtengah, Baturraden District, Banyumas Regency Semester I of the 2024/2025 school year. The result in the first cycle reached an average value of 66.65, increasing in the second cycle to 79.8. In addition, there was also an increase in the percentage of student activity which in the first cycle reached 49%, increasing in the second cycle to 59%.

CONCLUSION

Based on the results of the research on classroom actions and learning activities that have been carried out by applying the Culturally Responsive Teaching approach in learning activities of Numbers Up to 1,000 in grade III students of SD Negeri 3 Karangtengah, Baturraden District, Banyumas Regency, Semester I of the 2024/2025 Academic Year. The conclusion obtained is that the Culturally Responsive Teaching approach is proven to improve learning outcomes and student activity in the Number of Numbers Up to 1,000 material in grade III students of SD Negeri 3 Karangtengah, Baturraden District, Banyumas Regency, Semester I of the 2024/2025 Academic Year. The application of the Culturally Responsive Teaching approach in the material of Numbers Up to 1,000 in grade III students of SD Negeri 3 Karangtengah, Baturraden District, Banyumas Regency, Semester I of the 2024/2025 Academic Year there was a significant increase in the average score of 66.65, increasing in the second cycle to 79.8. In addition, there was also an

increase in the percentage of student activity which in the first cycle reached 49%, increasing in the second cycle to 59%.

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