JPSD Vol. 10 No. 2, September, 2024
p-ISSN: 2540-9093,
e-ISSN 2503-0558
DOI: http://dx.doi.org/10.30870/jpsd.v10i2.28336

EFFORTS TO IMPROVE IPAS LEARNING OUTCOMES FOR 6TH GRADE ELEMENTARY STUDENTS USING THE CULTURALLY RESPONSIVE TEACHING (CRT) APPROACH

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Article Info

Article History:

Accepted
October 2024

Revised
September 2024

Approved
August 2024

Abstract

This research was conducted due to problems found in the classroom, namely the low science learning outcomes of the students and the lack of understanding of concepts and the meaning of learning that fosters critical thinking skills, which causes students to be passive during the learning process. This research aims to improve the learning outcomes of 6th-grade students at SD Negeri 3 Sekarteja by implementing the Culturally Responsive Teaching (CRT) approach in science lessons, particularly on the human musculoskeletal system. The subjects of this study were 30 students in the 6th grade at SD Negeri 3 Sekarteja, consisting of 14 male and 16 female students. This research used the Classroom Action Research (CAR) method, conducted in two learning cycles: planning, implementation, observation, and reflection. Data collection techniques were carried out through tests and quantitative data analysis. The study results showed that implementing the Culturally Responsive Teaching (CRT) approach significantly improved students' learning outcomes on the human musculoskeletal system. In the pre-cycle stage, student learning outcomes reached 53.3%. In Cycle I, there was an increase in student learning outcomes with a classical completeness of 70%. In Cycle II, there was a further increase in student learning outcomes, achieving a classical completeness of 86.7%. It proves that applying the Culturally Responsive Teaching (CRT) approach effectively improves student learning outcomes in science lessons, particularly on the topic of the human musculoskeletal system.

Keywords: IPAS; Culturally-Responsive Teaching; Learning Outcomes

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A. Introduction

The learning outcomes achieved by students are used as a reflection of the success of a learning process. According to Wirda et al. (2020), learning outcomes are a measurement tool to assess how well students have mastered the material the teacher presents. Similarly, Yuliani et al. (2023), state that learning outcomes, which can be regarded as the result of the entire learning process, indicate the extent of understanding and new knowledge that students have gained in a subject, reflecting the success or failure of the learning process. Student learning outcomes are closely related to the role of educators who provide teaching and support throughout the learning process. (Marini et al., 2023) argue that if student learning outcomes fall below the Minimum Mastery Criteria (KKM), the teacher must identify and address the factors contributing to the low learning outcomes.

Nasution (2017) states that using appropriate teaching methods in the learning process can enhance students' conceptual understanding and improve their learning outcomes. Teachers' teaching methods significantly influence students' learning outcomes. In line with this perspective, Hidayati et al. (2022), assert that educators are responsible for providing students with motivation, guidance, and learning facilities. Consequently, the educator's role in the learning process becomes more comprehensive and ultimately improves student learning outcomes (Taufik & Dwijayanti, 2022).

Natural and Social Sciences (IPAS) is a subject in the independent curriculum that combines the previous subjects of Natural Sciences (IPA) and Social Sciences (IPS). IPAS focuses on understanding living organisms and non-living objects in the universe and their interactions (Alfatonah et al., 2023). According to Agustina et al. (2022), IPAS education aims to develop interest and curiosity, encourage active participation, enhance inquiry skills, foster self-awareness and environmental awareness, and expand knowledge and understanding of IPAS concepts. Similarly, Fitria et al. (2021) state that the purpose of Natural Sciences in elementary schools is to maximize scientific concepts to assist with daily life processes. The IPAS subject equips students with knowledge, character development, and understanding of the natural and social environment.

Based on observations conducted at SD Negeri 3 Sekarteja, located in Selong district, East Lombok, the researcher observed the 6th-grade students and found one topic in the Natural and Social Sciences (IPAS) curriculum that students still need help understanding. The topic in question is the human musculoskeletal system. Although the students follow the learning activities' flow, they need a proper understanding of the concepts and meanings behind the lesson. It has impacted their learning outcomes, which are considered low because they need to meet the Minimum Mastery Criteria (KKM). Students need to accurately understand the concept of the human musculoskeletal system, including the organs involved and their interrelationships. In this context, it was found that students still need clarification about understanding the concept of the human musculoskeletal system and tend only to recognize examples of movement organs.

Students need to understand the concepts being taught, particularly regarding the cooperation and relationship between the organs involved in the human musculoskeletal system. This situation can affect students' interest in learning IPAS, decrease their problem-solving abilities, and lead to passive behaviour during the learning process, negatively impacting their learning outcomes. Understanding the concept of the musculoskeletal system is crucial for students, especially in IPAS education, which emphasizes thinking skills and the ability to investigate the natural world. Science education in elementary schools is required to provide direct experiences to students and activate their thinking skills, curiosity, and investigative abilities regarding their surroundings (Yulmasleli, 2020).

The method required to study IPAS concepts, particularly the musculoskeletal system, involves a gradual understanding. However, students often display passive behaviour during lessons, especially in IPAS, and tend to find it difficult. They need to analyze the connections and relationships between the functions of different movement system organs. Another reason is that students feel bored and complain about the number of assignments given. These findings align with the research conducted by Prastianto et al. (2024), which shows that inadequate teaching practices significantly impact students' ability to achieve low learning outcomes.

Based on the issues identified in the 6th-grade classroom, a learning approach that fosters meaningful learning experiences and deep understanding for students is necessary. Integrating education and culture into the learning process can create meaningful learning experiences. This is because culture-based learning transfers cultural knowledge and its manifestations. It utilizes culture to enable students to create meaning, push the boundaries of imagination, and be creative in profoundly understanding the subjects being studied (Maryono et al., 2021). One approach that facilitates meaningful learning and requires students to develop 21st-century skills is the Culturally Responsive Teaching (CRT) approach. Culturally Responsive Teaching (CRT) is a teaching approach that acknowledges and understands the cultural diversity of students to create an inclusive learning environment (Mumpuniarti et al., 2020).

The researcher considered using the Culturally Responsive Teaching (CRT) approach to improve student learning outcomes at SD Negeri 3 Sekarteja. The advantages of the CRT approach include increasing learning motivation, facilitating material understanding, developing critical thinking skills, and creating an inclusive learning environment (Enjelina et al., 2024). Using the CRT approach in IPAS (Integrated Science and Social Studies) learning can provide meaningful understanding for students. IPAS learning will be more meaningful if there is continuity between the material and daily life activities in the student's living environment, which can be used as a learning resource (Nisaâ et al., 2015). The CRT approach can also enrich students' understanding of their culture (Listiyowati, 2023).

It aligns with Mus & Hastuti (2024), who state that culturally responsive teaching in elementary schools can help create an inclusive, stimulating, and relevant learning environment for all students, as well as help address the challenges of cultural diversity in the education process. Furthermore, Sari et al. (2023) state that the increase in learning activities is closely related to the implementation of a learning model integrated with local culture, internalizing local culture into the learning process to make the topics presented more accessible to students' reasoning, as they relate to real-life experiences or relevant events they have

encountered. This approach enables students to increase their interest in learning and retain a deeper understanding.

Based on the background described above, the researcher needed to conduct a study titled "The Efforts to Improve IPAS Learning Outcomes in 6th Grade Using the Culturally Responsive Teaching (CRT) Approach."

B. Methods

This research was conducted at SD Negeri 3 Sekarteja, in the Selong District, East Lombok Regency, West Nusa Tenggara Province. The subjects were 30 students of 6th grade at SD Negeri 3 Sekarteja, with 14 males and 16 females. This research is conducted in the odd semester of the 2024/2025 academic year.

The type of research used is classroom action research (CAR). According to John Elliot, this research follows the classroom action research (CAR) model, which consists of four stages: planning, acting, observing, and reflecting (Fitria & Saenab, 2023). These four stages form a continuous cycle, including Cycle I and II, from the planning stage to reflection.

In the first stage, planning, the researcher designed learning tools such as teaching modules and other teaching materials by linking IPAS (Integrated Science and Social Studies) learning materials with the students' culture and daily life. In the acting stage, the researcher carried out learning activities, which included introductory activities, the main content, and the closing. Following this, during the observation stage, the researcher observed the learning process and recorded the learning outcomes achieved by the students during the learning process. In the final stage, reflection was conducted to identify and review any shortcomings and challenges encountered during the learning process and to improve the learning process in the subsequent cycle.

The data collection techniques included pre-tests and post-tests sheets to obtain students' learning outcomes. These tests were administered at the end of the learning process before each cycle and at the end to assess the learning outcomes achieved. The study employed quantitative data analysis. The collected data were

JPSD Vol. No. , Month, Year
p-ISSN: 2540-9093,
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analyzed using learning outcome assessments and assessments of student skills. The criteria for success were measured by the indicator of classical mastery of student learning outcomes that fulfill the minimum mastery criteria, ≥75 or 75%. If this mastery indicator is achieved, the cycle is considered complete, and there is no need to proceed to the next cycle. The students' learning achievements will be assessed using the following formula.

$$\overline{x} = \frac{\sum x}{\sum N}$$

(Aqib, 2016:41)

Description :

$\overline{x}$: Average score of all students

$\sum x$: Total score of all students

$\sum N$: Number of students

C. Results and Discussion

This classroom action research was conducted in two cycles, each with two meetings. Before the cycles were implemented, the researcher conducted an observation to identify the students' initial conditions using a written test. Subsequently, written tests were applied at the end of each cycle, Cycle I and Cycle II. The researcher then developed a plan and carried out observations during the research process.

The study was conducted at SD Negeri 3 Sekarteja from 11 July 2024 to 10 August 2024. It involved 6th-grade students during their IPAS (Integrated Science and Social Studies) lessons, specifically on the human movement system. This action research was carried out in two cycles: Cycle I and Cycle II.

There was an improvement in students' learning outcomes and an increase in their motivation to learn. The research showed that learning outcomes improved after students took the initiative and actively expressed their opinions, primarily when the material was related to daily activities in their local environment used during the learning process. It made the learning experience more engaging. The following data table shows the improvement in students' learning outcomes.

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Table 1
Percentage of Student Learning Outcomes in Pre-Cycle, Cycle I, and Cycle II

Mastery of Learning	Test Score	Number of Students			Classical completeness		
		Pre-cycle	Cycle I	Cycle II	Pre-cycle	Cycle I	Cycle II
Complete	≥75	16	21	26	53,3%	70%	86,7%
Incomplete	<75	14	9	4	46,7%	30%	13,3%

Here is a graph that shows the increase in learning outcomes in the form of graphs based on research outcomes:

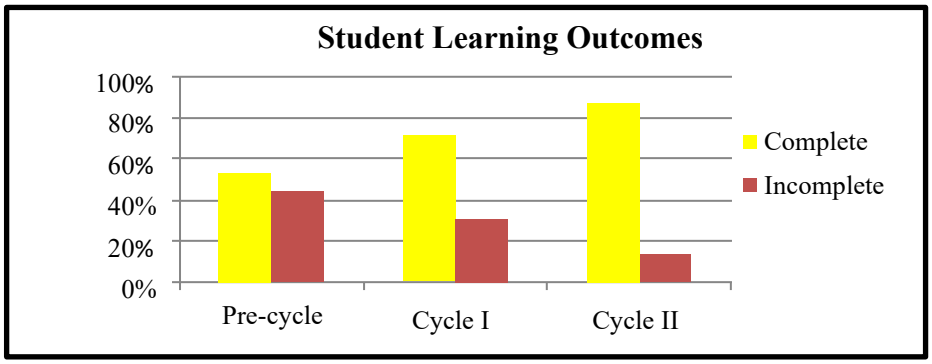

Figure 1. Diagram of Student Learning Outcome

Based on the learning process results, it was found that in the pre-cycle, out of 30 students, 16 achieved learning mastery, while 14 students still needed to achieve mastery. The lack of mastery was due to the student's tendency to be passive and their difficulty thinking critically during the learning process. It was also observed that some students hesitated to ask questions when they did not understand something. Based on these results, the study continued with Cycle I, as only 53.3% of the 30 students achieved learning mastery. Therefore, the research proceeded to Cycle I.

In Cycle I, the researcher connected the material on the human movement system with examples from the students' daily activities to encourage critical thinking and increase their interest by showing them an animated video about daily activities related to the human movement system. As a result, out of 30 students, 21 mastered the material, while 9 still needed to. Consequently, the student's mastery level increased from 53.3% to 70%. However, in Cycle I, the desired learning outcome still needed to be achieved, indicating that further action was needed in Cycle II.

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The researcher continued with Cycle II after completing the previous cycle. In Cycle II, the researcher used media and technology in the learning process to encourage students to think critically by correlating the material to the local culture, which included elements of movement, such as the traditional martial arts culture found in East Lombok. Based on the experiences in Cycle II, the students showed interest and enthusiasm for critical thinking during the learning process. Out of 30 students, 26 achieved mastery by scoring above the minimum threshold, while 4 students still needed to achieve mastery, scoring below the threshold. Based on these results, the student's mastery level increased to 86.7%. Therefore, Cycle II can be categorized as successful because it achieved the target of 80% mastery.

Based on the research results, using the Culturally Responsive Teaching (CRT) method effectively improves student learning outcomes. Sya'bana et al. (2024) stated that the CRT approach, which integrates culture and real-life experiences with the learning material, positively impacts students' engagement, activeness, understanding, and learning outcomes, providing meaningful learning experiences. Meanwhile, according to Rimang et al. (2023), the culture referred to in the Culturally Responsive Teaching approach is the students' daily habits connected to the learning material.

This research also aligns with a previous study conducted by Sulastri et al. (2024), which showed a significant increase in student learning outcomes from 57% in Cycle I to 82% in Cycle II. Another supported research from Lasminawati et al. (2023) showed an improvement in student learning outcomes, with mastery reaching 88% in Cycle I and 91% in Cycle II, while prior to the study, student learning outcomes achieved mastery at 61%.

By applying a learning approach that integrates culture and real-life experiences with the learning material, there is evidence of increased learning achievements obtained by students. It aligns with the advantages of the CRT approach, which include increasing learning motivation, facilitating understanding of the material, developing critical thinking skills, and creating an inclusive learning environment (Enjelina et al., 2024). Science learning will be more meaningful if

there is continuity between the material and daily life activities in the student's living environment, which are used as learning resources (Nisaâ et al., 2015).

D. Conclusion

Based on the research results, implementing the Culturally Responsive Teaching (CRT) approach can improve the learning outcomes of 6th-grade students at SD Negeri 3 Sekarteja in Science learning, particularly in the human respiratory system. The Culturally Responsive Teaching (CRT) method has proven effective in improving student learning outcomes in the 2024/2025 academic year. It can be seen from the learning results from the pre-cycle, Cycle I, and Cycle II, where the learning outcomes increased significantly according to the set indicators.

According to the research results conducted with 30 student subjects, 16 students (53.3%) they have completed their tasks successfully in the pre-cycle. There was an increase in Cycle I, with 21 students (70%) improving. Subsequently, in Cycle II, the number of students who completed their tasks increased to 26 (86.7%).

Based on the research results, the consistent implementation of the Culturally Responsive Teaching (CRT) approach in the pre-cycle, Cycle I, and Cycle II can improve the Science learning outcomes of 6th-grade students at SD Negeri 3 Sekarteja, particularly on the topic of the human respiratory system. The percentage of student learning outcomes increased significantly from 53.3% in the pre-cycle to 70% in Cycle I and reached 86.7% in Cycle II. It shows that the implemented teaching approach effectively enhances students' understanding and learning outcomes.

Other researchers should pay more attention to implementing the Culturally Responsive Teaching (CRT) approach in Science education. This approach encourages students to be more active in developing their critical thinking skills and connects learning to real-life contexts. The significant impact of this approach is visible in education; therefore, it is necessary to explore its potential and benefits further in improving the quality of science education. The Culturally Responsive Teaching (CRT) approach is engaging and influential in education.

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