

# Implementation of differentiated learning with a Culturally Responsive Teaching approach to increase students' interest in learning

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# **ABSTRACT**

*Implementing learning aligned with the Culturally Responsive Teaching (CRT) approach is a method enabling* a more accurate comprehension and representation of knowledge, tailored to students' individual learning tendencies and styles, while considering the diverse cultures surrounding them. Transitioning from the old paradigm to adopting learning in accordance with the demands of the 21st century and the current curriculum is imperative, despite the uneven distribution of the Independent Curriculum across schools. This study is prompted by students' lack of interest in learning, evident in their limited engagement in the learning process. The objective of this research is to illustrate the impact of employing differentiated learning with a Culturally Responsive Teaching (CRT) approach on enhancing students' learning interest. The research methodology employed was classroom action research conducted over two cycles. The research process was executed collaboratively, employing a lesson study approach and utilizing qualitative descriptive methods, with data collection techniques comprising observation and questionnaires. Research findings demonstrate an increase in students' learning interest through the implementation of differentiated learning with a Culturally Responsive Teaching (CRT) approach. This is evidenced by the average N-Gain value for learning interest in Cycle I, which was 0.4029, classified as medium, and in Cycle II, it reached 0.7014, classified as high. Thus, differentiated learning integrating the Culturally Responsive Teaching (CRT) approach has been proven highly effective in establishing a more inclusive and meaningful learning atmosphere within the classroom.

Keywords: Differentiated learning; Culturally Responsive Teaching (CRT); Interest to learn; Independent Curriculum; Culture

#### **ABSTRAK**

Penerapan pembelajaran yang sesuai dengan pendekatan Culturally Responsive Teaching (CRT) adalah suatu metode yang memungkinkan pemahaman dan penyampaian pengetahuan yang lebih

tepat sesuai dengan kecenderungan dan gaya belajar individu peserta didik, dengan memperhatikan ragam budaya yang ada di sekitar mereka. Mengubah paradigma lama untuk mengadopsi pembelajaran yang sesuai dengan tuntutan abad 21 dan kurikulum saat ini menjadi suatu keharusan, meskipun implementasi Kurikulum Merdeka masih belum merata di semua sekolah. Penelitian ini dilatarbelakangi oleh minimnya minat belajar siswa yang tercermin dari keterlibatan siswa yang kurang aktif dalam proses pembelajaran. Tujuan dari penelitian ini adalah untuk menggambarkan dampak penggunaan pembelajaran berdiferensiasi dengan pendekatan Culturally Responsive Teaching (CRT) terhadap peningkatan minat belajar siswa. Metode penelitian yang digunakan adalah penelitian tindakan kelas yang dilakukan dalam dua siklus. Proses penelitian dilakukan secara kolaboratif dengan menggunakan pendekatan Lesson Study dan menerapkan metode deskriptif kualitatif dengan teknik pengumpulan data melalui observasi dan kuesioner. Hasil penelitian menunjukkan peningkatan minat belajar siswa dengan penerapan pembelajaran berdiferensiasi menggunakan pendekatan Culturally Responsive Teaching (CRT). Ini terlihat dari rata-rata Nilai N-Gain minat belajar pada Siklus I sebesar 0,4029 dengan kategori sedang, dan pada Siklus II sebesar dengan kategori tinggi. Dengan demikian, pembelajaran berdiferensiasi yang mengintegrasikan pendekatan Culturally Responsive Teaching (CRT) terbukti sangat efektif dalam menciptakan lingkungan belajar yang lebih inklusif dan bermakna di dalam kelas.

**Kata Kunci**: Pembelajaran berdiferensiasi; Culturally Responsive Teaching (CRT); Minat belajar; Kurikulum Merdeka; Kebudayaan

#### INTRODUCTION

Under the leadership of Minister of Education, Culture, Research, and Technology Nadiem Makarim, the current Indonesian government is striving to enhance the quality of instructors. It aims to change educators' perceptions of people who have varied, unique, and extraordinary skills, with several ways to address them. Freedom of learning refers to a variety of issues that threaten humanity. Freedom to Learn aims to restore or improve the national education system in accordance with the law by providing opportunities for schools, teachers, and students to make educational improvements and innovations. First and foremost, the free learning programme starts with instructors who are national education activists known as driving teachers, and many schools are starting to implement it (Marita, 2023).

Education is an important aspect of life, and it is frequently utilised to shape humans into living creatures capable of benefiting themselves and their communities. To increase education quality, the Indonesian government is modifying teachers' perceptions of instructors who possess outstanding and unique abilities and can overcome a variety of classroom problems. This initiative is named Freedom in Learning (Marita, 2023).

The independent curriculum focuses on internal learning and has several objectives. The presented material provides optimal opportunities for students to enhance their understanding of the topic and enhance their skills (Defi Triana Sari et al., 2022). The goal is for students to acquire the abilities listed in the learning outcomes through internal learning. Developing the concept of "freedom to learn, freedom to play." is the main focus of the learning activities in this curriculum. The activities chosen must be interesting and have the potential to improve student achievement. These exercises necessitate the use of concrete learning tools, including those implemented in the classroom. We can use technology and student textbooks to present learning information that is not yet available (Kemendikbudristek, 2022).

According to Ainia (2020), freedom to think and be creative is an important aspect of education. Without the teacher's role in promoting free thinking, students may lack the

motivation to think independently. Traditionally, classroom learning was the only option for students, but in the future, teachers will encourage them to learn outside of the classroom and engage directly with them, fostering active engagement. Online presence in the classroom will increase, offering the benefits of flexibility, social creativity, and innovation. The independent learning approach will emphasize independence and innovation in learning, drawing on Ki Hajar Dewantara's ideas about the importance of independence in education. The concept of freedom to learn is also based on Ki Hajar Dewantara's values, leading to the development of a culturally appropriate understanding of Indonesia's national identity through education. Autonomous curriculum adoption is critical in 21st century education, shifting the focus of schools from teachers to students and adapting learning to meet individual student needs (Sugiarta et al., 2019).

21st century learning must be relevant to real-world challenges and demands, such as developing the ability to collaborate, solve problems, control oneself, think critically, master technology, process information, and communicate effectively. In the implementation process, students can develop themselves as human beings and citizens who are faithful, industrial, creative, inventive, and able to contribute to the lives of society, nations, states, and world civilisation (Tritiyatma dalam Limbong, Munawar, and Kusumaningtyas, 2019).

Implementing differentiated learning can meet students' needs. Differentiated learning is a variety of activities that take place to study students and pay attention to their learning responses based on their uniqueness (Fauzia & Hadikusuma Ramadan, 2023). Differentiated learning is a means to understand and provide knowledge based on the skills and learning styles of individuals with diverse characters (Wahyuni et al., 2022). Meeting the needs of students does not only mean paying attention to the learning style and character of the students; teachers can also meet the needs of students by paying attention to the culture of the students because Indonesia is a country with very abundant cultural diversity (Yonanda et al., 2023).

In the classroom, the teacher acts as the main facilitator of learning. According to Ismayilova, teachers who are more creative in the learning process will make the teaching and learning process in the classroom more inventive (Karundeng et al., 2023). Teachers can use culturally responsive teaching (CRT) to meet students' needs through cultural education. According to Gay, culturally responsive teaching methods (CRT) contribute to students' diverse potential by evaluating their academic and psychological qualities (Nida Nurulaini et al., 2023). Meanwhile, according to Fraser, culturally responsive teaching methods (CRT) recognize students' cultural diversity and incorporate their cultural backgrounds into learning (Lasminawati et al., 2023).

Culturally responsive teaching (CRT) strategies entail integrating local culture or norms into the learning process. This approach is part of contextual learning, which aims to inspire children's interest in learning. Some children may feel less confident in communicating and participating actively. This kind of learning approach allows students to develop 21st century skills such as automation, information, communication, and teamwork in a supportive way. Culturally responsive teaching (CRT) is another learning technique in which the teacher acts as a facilitator, aiming to overcome differences in viewpoints that arise in the classroom due to the diverse backgrounds, cultures, commitments, and other characteristics of each student

(Abadi & Muthohirin, 2020). Furthermore, educators act as intermediaries, valuing and recognising diverse cultural responses as an essential part of the educational experience rather than as separate elements. The culturally responsive teaching (CRT) approach encourages students to have confidence in their ability to ask questions. The culturally responsive teaching (CRT) approach also encourages students to improve their skills by asking for help from lecturers, classmates, and neighbours (Wu et al., 2023).

A teacher is a person who is assigned as the main subject and is considered capable of acting as a motivator for students by carrying out actions that are clearly beneficial for their students (Ainia, 2020). Teachers are expected to be good examples in their work, as well as mentors who are able to shape students into generations who will continue their role in the nation. Ki Hajar Dewantara's principles, which emphasise providing examples and education, include the concepts of "Ing Ngarsa Sung Tuladha" (leading, giving an example), "Ing Madya Mangun Karsa" (in the middle, inspiring enthusiasm), and "Tut Wuri Handayani" (after, guiding). The concept of freedom of learning highlights students' ability to learn independently and creatively. In this context, the teacher's role is that of a facilitator. Likewise, according to Novelita & Devian (2023) teachers act as directors for their students, ensuring that they understand the context of the material being studied. In this context, educators should emphasise students' professional goals. This is in line with the statement of Faiz et al. (2022) where Ki Hajar Dewantara stated that educators need to guide children to achieve happiness and realise their potential. Ki Hajar Dewantara's vision of humanism focuses on human independence. Teachers are expected to be facilitators who are able to design learning experiences that suit students' learning needs, so that they can become the individuals Ki Hajar Dewantara hopes for.

Inayah (2023) mentioned that the culturally responsive teaching skills (CRT) approach encourages all students to participate actively and show a strong interest in learning, which is an important component of effective teaching. Apart from making children active learners, this also makes them independent, meaning that children learn to be independent, responsible, tolerant, and accepting of the differences of other students. Combining learning and cultural values will create a relevant and beneficial learning environment because students are expected to have characters that enable them to overcome challenges (Nida Nurulaini et al., 2023). Teachers must know their students, especially in their home communities. This technique makes learning more relevant and interesting for students, increases their enthusiasm for learning, and makes it easier for them to integrate real-world problems with classroom experiences. CRT is not focused on formal justification alone but rather encourages revolutionary innovation by integrating vision, hope, and sustainable practice, which is balanced by a constructive critical process (Kristiawan, 2019).

According to Villegas and Lucas, a teacher who applies this approach is expected to have six characteristics, including: (a) awareness of socio-cultural aspects; (b) biassed attitudes and views; (c) seeing other individuals as agents of change and support; (d) seeking to understand how students acquire knowledge and how they express it; (e) trying to understand students' lives; and (f) being known for its ability to use knowledge to develop students' abilities while also expanding the scope of their knowledge (Abadi & Muthohirin, 2020). Educators can create culturally sensitive learning environments by using culturally responsive teaching, which

respects and incorporates students' cultural values, customs, and experiences into the learning process. This strategy helps students understand the relevance and importance of the course material to their own experiences, thereby increasing interest and engagement (Hardiana, 2023).

According to Charli et al., (2019) interest is defined as a strong impulse or tendency, as well as deep excitement about something. Meanwhile, according to Hilgrd and Bower (Charli et al., 2019), learning is associated with a person's behavior in a certain context as a result of repeated encounters in that environment, when changes in behavior cannot be explained or depend on intrinsic reactions, maturity, or a person's current state. Thus, interest in learning can be understood as a relationship that exists between individuals and activities or material outside themselves, driven by the desire to obtain new information such as concepts, understanding, or knowledge that can improve one's behavior.

According to Totok Susanto in Simbolon (2020) various factors influence students' interest in learning, including motivation and goals, family influence, the motivating role of teachers, and the availability of educational facilities and infrastructure. Apart from that, interaction with peers also plays a role in forming students' interest in learning. Motivation and goals provide direction in the learning process, while family influence forms the foundation of values that underlie interest in learning. The teacher's role is not only to teach but also to inspire and provide support. Adequate facilities and infrastructure provide a conducive environment for learning, while interaction with peers is an important social stimulant.

Based on the initial evaluation, it appears that students' interest in learning is still lacking, characterized by low involvement in the learning process, as well as a lack of responsibility in completing assignments or participating in discussions, caused by the teacher's preference for certain teaching methods. Students tend to lose interest in the traditional model, which is dominated by lectures and questions and answers. In addition, classroom learning strategies do not promote a learning culture that encourages understanding of material that is relevant to everyday life. In the future, the heterogeneity of cultural backgrounds and characteristics among students in one class becomes a challenge in integrating academic skills, culture, and society's social needs. This study aims to investigate the impact of differentiated learning and the Culturally Responsive Teaching (CRT) approach on increasing students' interest in learning.

# **METHODS**

## Type and Design

This research is classroom action research. This research is known as collaborative classroom action research, which is a learning method that combines the differentiated learning paradigm with the culturally responsive teaching (CRT) approach. This research was carried out at SD Negeri 112 Palembang on the topic of Indonesian, with a population of 72 students and a sample of 24 students. This research was conducted in two rounds, starting in April 2024.

This research was carried out jointly using the lesson study method, with researchers, teachers, colleagues, and lecturers working together to complete all stages of the research using the lesson study framework, namely Plan-Do-See. This classroom action research was carried

out in cycles, each cycle consisting of four stages, namely planning, implementation, observation, and reflection. Each cycle, teachers use culturally responsive teaching methods (CRT). Meanwhile, the non-test instrument is in the form of a learning interest questionnaire with a Culturally Responsive Teaching (CRT) approach.

#### **Data and Data Sources**

The survey's data on the spread of interest in learning was then researched using a descriptive-quantitative methodology. The questionnaire findings were then interpreted descriptively and statistically to determine the increase in students' interest in learning, which was then classified as high, medium, or low. The N-Gain Score test is used to categorise student interests. N-Gain score requirements are as follows:

Table 1. Normalized Gain CriteriaExpanseCategory $g \ge 0.7$ High $0.3 \le g < 0.7$ Mediumg < 0.3Low

Source: Hake dalam (Lumbantobing et al., 2022)

# Data collection technique

This research used observation and questionnaires as data collection techniques used in this research were observation and questionnaires.

## Data analysis

A single-group pretest-posttest design and quantitative descriptive approach were used in this investigation. The N-Gain Score test, Paired Samples T-Test, and normality test were used to collect data in this study. The normality test was carried out first, followed by the paired sample t test. A paired sample t-test was performed to determine that there was no significant difference in scores before and after treatment on the variables learning interest and learning achievement. To measure category improvement, the N-Gain Score test is used to assess learning interest and learning achievement characteristics.

#### RESULTS AND DISCUSSION

This classroom action research (PTK) is designed to arouse students' interest in learning. Data about learning interests was collected by giving questionnaires to research participants. The questionnaire consists of 13 questions designed to assess interest in learning. The questionnaire was delivered in two stages: before therapy was administered and at the end of each trial cycle. Before learning, a questionnaire is first issued to determine the initial condition of students' interest in learning.

#### Siklus I

Preparing learning materials is the first step in planning the first cycle. The first cycle's learning implementation refers to the plan presented in the teaching module, which consists of two sessions. The module is adapted to provide learning adapted to the principles of culturally responsive teaching (CRT). In the initial cycle, interviews are the focus of learning. The CRT approach is based on five principles: 1) identifying students' cultural identities; 2)

forming inclusive and empowering bonds; 3) prioritising learning that focuses on students; 4) conveying relevant and significant material; and 5) providing empowerment opportunities for students (Hardiana, 2023).

Cycle 1 saw the systematic implementation of differentiated learning using the Culture-Responsive Teaching Approach (CRT). In learning, there are four groups: two audiovisual learning styles and two kinesthetic learning styles. Students with an audiovisual learning style study through video podcasts, whereas those with a kinesthetic learning style conduct live interviews with school residents. The following are the results of a quantitative descriptive analysis of differential learning implementation using a culturally responsive learning strategy to increase student interest:

Table 2. N-Gain Score Cycle I

	N	Minimum Maximum		Mean	Std. Deviation			
N_Gain	24	.14	.67	.4029	.14640			
Valid N	24							
(listwise)								

Based on table 2, the average value (mean) of interest in learning in cycle I is 0.4029, which shows that based on table 1, the normalised gain criteria are included in the medium category. Upon reflection of cycle I, it became clear that a significant number of students had incorrectly completed the student learning style questionnaire. This is very important because children do not learn according to their preferred learning method. Additionally, researchers received feedback on how to improve classroom management.

#### Siklus II

After assessing Cycle I execution, it was discovered that some of the students who filled out the assessment of learning styles did not receive as much as they desired, resulting in objections about the disparities in the assignment of the audiovisual group and the kinesthetics group. The next cycle of planning will include some enhancements. To address the shortcomings of Cycle I, instructors must enhance their time management and class management abilities in all learning activities, as well as identify student learning types for Cycle II. Cycle 2's learning methodologies, like Cycle I's, employ differential learning approaches and the culturally responsive teaching (CRT) method. At this point, the principles of cultural response teaching strategies are rigorously monitored, and the students' learning interests are as follows:

Table 3. Interest in Learning Cycle II (N-Gain Score)

	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_Skor	24	.36	1.00	.7014	.19638
Valid N	24				
(listwise)					

Table 3 shows that students' interest in learning in cycle II increased, particularly in the high category, with an average (mean) N-Gain score of 0.7014. Following the completion of the learning session, the researchers and teachers, who had served as observers during the research, engaged in reflection. The results of Cycle II demonstrate that the implementation of learning using the Culturally Responsive Teaching Approach (CRT) has succeeded in achieving the researcher's desired performance objectives. This achievement is reflected in students' increased motivation to learn. Students are able to adapt well to culturally responsive teaching techniques (CRT) and learning tailored to their needs

## **CONCLUSION**

The results of this study indicate success in increasing student motivation in the learning process. This success is reflected in the increase in the average N-Gain value in students' interest in learning between cycles I and II. Before the research was conducted, students' interest in learning was reported to be low. However, after carrying out the research in two cycles, there was a significant increase in students' interest in learning. Research shows that the use of various learning methods that integrate Culturally Responsive Teaching (CRT) strategies into various learning methods can stimulate students' enthusiasm for learning and have a positive impact on them. It is hoped that these findings will encourage teachers to adopt teaching approaches that are sensitive to students' cultural contexts. Taking into account these findings, further research is recommended to explore the use of STEAM-based learning materials in providing learning tailored to individual needs with a Culturally Responsive Teaching (CRT) approach..

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