

## Development of a Culturally Responsive Teaching and Learning Model Based on the Merdeka Curriculum at Madrasah Ibtidaiyah

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**Abstract:** Learning models play a vital role in maximizing educational outcomes. Therefore, it is essential for teachers to thoughtfully select and implement instructional models that align with effective teaching practices. However, the success of any model also relies heavily on the presence of a solid support system, such as well-prepared teaching materials and student books, which help make learning more meaningful and engaging. The development of the Culturally Responsive Teaching (CRT) model stems from the necessity to create educational experiences that are not only academically sound but also culturally appropriate, particularly in diverse classroom settings. By embedding local cultural values into lessons, CRT aims to enhance student engagement, reinforce cultural identity, and promote civic understanding. This study aimed to develop a CRT model for use in Pancasila Education that is valid, practical, and effective in improving the learning outcomes of elementary school students in Padangsidempuan City. The research employed a Research and Development (R&D) approach, using the ADDIE model which includes five stages: analysis, design, development, implementation, and evaluation. The study was conducted at MIN 1 Padangsidempuan, involving fourth-grade students as the sample. Data collection techniques included observation, testing, questionnaires, interviews, and documentation. Data analysis was performed both quantitatively, using SPSS software, and qualitatively. The findings indicate that the CRT model and its supporting materials are highly valid and practical, making them easy for teachers and students to use. Furthermore, the model was found to be very effective based on students' learning outcomes across two test phases.

**Keywords:** Culturally Responsive Teaching, Learning Model, Merdeka Curriculum, Pancasila Education, Poda Na Lima



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### A. Introduction

Culture-based education has a very important role in maintaining national identity while instilling noble values in the younger generation. Education not only functions as a means of transferring knowledge, but also as a medium for preserving culture so that it is not eroded by the current of globalization. James in Zubaidah and Arsih (2021) stated that culture-based education is the right alternative to create meaningful learning. When

culture is integrated into the learning process, students not only understand the material cognitively, but also absorb the moral and social values inherent in their own culture. This is very relevant to strengthening students' character from an early age.

However, the reality of education in Indonesia today shows that there are quite serious character problems. Research by Sari, Hidayat, and Nuryadin (2023) revealed that many students in schools are experiencing a character crisis. This condition is in line with the findings of Aulia and Ruddin (2021) which stated that the character of the Indonesian nation has experienced a sharp decline in the era of globalization. Imron et al. (2023) added that ethical values and awareness of culture are increasingly marginalized. This is reinforced by the results of the PISA survey (OECD, 2020) which showed that Indonesia scored the lowest in terms of appreciation for cultural values.

Furthermore, the research results of Ramli et al. (2022) at SDN 120 and SDN 220 Jambi City found that students still often litter, which is a real form of low concern for the environment—a reflection of the weak social character of students. Similar problems were also found at MIN 1 Padangsidempuan based on field observations, where many students did not maintain cleanliness by littering. In fact, this attitude should be reflected in Pancasila Education learning which aims to shape attitudes, knowledge, and character skills.

In addition to character issues, student learning outcomes in Pancasila Education subjects are also relatively low, especially in the material on ethnic and cultural diversity in Indonesia. The average student score is known to be below the minimum completion standard (KKM), which is 75. This condition is exacerbated by monotonous learning methods, such as lectures, questions and answers, and discussions, as well as the use of learning models such as picture and picture which are not contextual. The learning resources used are still limited to textbooks from publishers, with very minimal explanations and less touching on aspects of students' real lives (observation and interview, June 20–22, 2024).

Although character and cultural education have long been integrated into learning, its implementation has not been optimal. One of the causes is the lack of teacher skills in linking learning materials with character values, as well as a greater focus on achieving cognitive aspects than affective ones (Ibnu & Tahar, 2021). Cameron et al. (2024) also emphasized that only a few teachers are truly competent in implementing culturally responsive pedagogy in a sustainable manner.

To respond to these various problems, the government formulated a new policy through the Independent Curriculum. This curriculum is presented as a revision of the 2013 Curriculum which was considered too rigid and not in accordance with the dynamics of the times (Zuhri & Nasir, 2023). The Independent Curriculum emphasizes student-centered learning, strengthening local wisdom values through the Pancasila Student Profile Strengthening Project (P5), and providing freedom for teachers and schools to design learning according to student needs (Fatmasari et al., 2024; Khasanah et al., 2024).

The main philosophy of this curriculum is to foster concern and positive character through a contextual and inclusive approach (Ilham et al., 2023).

However, in practice, curriculum reform has not had a fully even impact. The results of research by Ndari et al. (2023) revealed that many teachers were not ready to face the implementation of the Independent Curriculum, especially in terms of developing teaching tools that are relevant and adaptive to the local context.

To answer these challenges, a learning approach is needed that is able to integrate local culture into the learning process in a concrete and comprehensive manner. One approach that is considered appropriate is Culturally Responsive Teaching (CRT), a learning model that focuses on students' cultural backgrounds as part of the learning experience (Gay, 2000; Azizan et al., 2024c). In the Indonesian context, the culture in question includes local wisdom that lives in society (Azizan & Lubis, 2024). This model is in line with the spirit of the Merdeka Curriculum which provides space for teachers to develop learning based on local potential and student character (Husni et al., 2023).

By implementing the CRT model in the Merdeka Curriculum, it is hoped that learning will be more meaningful, relevant, and able to foster positive character and social awareness in students. Furthermore, this approach is also a real effort to preserve Indonesian ethnic culture through education. This research will integrate local culture such as *poda na lima*, which is maintaining five clean ones. maintaining five clean ones such as cleanliness of the heart, cleanliness of the body, cleanliness of clothes, cleanliness of the house, and cleanliness of the environment.

Therefore, this study aims to develop a Culturally Responsive Teaching (CRT) learning model based on the Independent Curriculum in elementary schools, with the aim of: (1) producing a valid CRT model, (2) analyzing the level of practicality of the CRT model, and (3) evaluating the effectiveness of the CRT model in improving student learning outcomes and character, especially in Pancasila Education learning.

## **B. Method**

This type of research is Research and Development by applying the ADDIE model. The ADDIE model was chosen in this study because it is a systematic and flexible development approach to designing and developing effective learning tools. The ADDIE model has five stages, namely: analyzing, designing, developing, implementing, and evaluating (Hamzah, 2019). The first stage, the researcher conducted an analysis of learning needs in the classroom, for example identifying the initial conditions of PPKn learning, especially material on ethnic and cultural diversity in Indonesia. Second, designing learning tools based on Culturally Responsive Teaching (CRT) that integrate local cultural values (*Poda Na Lima*) into the material on ethnic and cultural diversity. Third, developing modules or teaching materials based on local culture that introduce the concept of diversity and *Poda Na Lima* and its assessment instruments. Fourth, the products of the development were tested in the classroom. Fifth, a comprehensive formative evaluation was carried out.

The research was conducted at MIN 1 in Padangsidempuan in the odd semester of the 2024/2025 academic year. The research period was 5 months. The population and sample of the research were students of grades IV-A, IV-B, and IV-C with a total of 104 people. The focus of the subject matter on ethnic and cultural diversity in Indonesia is in the Pancasila Education subject. Table 1 shows the validity assessment intervals for the learning devices developed based on validity tests by experts.

**Tabel 1.** Interval Nilai Validitas

Score	Percentage	Category
5	90% - 100%	Very valid
4	75% - 89%	Valid
3	65% - 74%	Quite valid
2	55% - 64%	Less valid
1	0% - 54%	Invalid

Source: Sugiyono (2015), Tegeh & Kirna (2010)

The analysis aims to find the level of validity of a support system from the CRT learning model in the form of learning devices (teaching modules and student books). Test data validity test, reliability test, descriptive statistical test, normality test, and Paired Sample T-Test test assisted by SPSS software. The analysis aims to find the level of effectiveness of a CRT learning model. Meanwhile, a qualitative approach is used to analyze interview data to find the practicality of the CRT learning model based on responses from teachers and students.

### C. Results and Discussion

After conducting research for four months in 2024, researchers obtained data when developing the CRT learning model at MIN 1 Padangsidempuan which is described as follows:

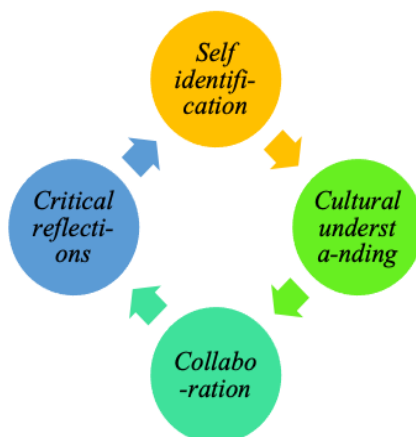
#### Analysis Results

It has been analyzed that so far teachers have rarely applied learning models, even tending to apply lecture methods, even though implementing the Merdeka curriculum must focus on student activeness in learning, while teachers have not been directed towards student centers. Learning tools are still very limited, especially those based on the Merdeka Curriculum are still far from expectations, for example, until now there are still many teachers who have not been able to create teaching modules, only hoping for what is on the internet. This has an impact on student learning outcomes, as a result, the average student's learning outcomes have not reached the minimum completion criteria, which is  $>75$ . Teachers are also not yet able to understand the characteristics of their students, even though teachers should be able to place students in their learning based on learning styles.

So it can be concluded that there needs to be a learning model and supporting system in the form of learning tools that can make it easier for students to understand the subject matter of ethnic and cultural diversity in Indonesia.

### Design Results

The learning model developed in this research is CRT, the stages of which are shown in Figure 1.



**Figure 1.** CRT Learning Model Syntax

After the CRT learning model is designed, the next step is the teaching module. The designed teaching module has components of the name of the madrasah, subjects, subject matter, phase and class, time allocation, academic year, name of the compiler, initial competency of the Pancasila student profile, facilities and infrastructure, student targets, learning models, learning objectives, criteria for achieving learning objectives, meaningful understanding, trigger questions, and learning activities.

The student book is compiled to provide students with guidelines related to learning objectives and the scope of the material. This book contains: the student book; learning outcomes; and lesson materials on ethnic, social, and cultural diversity related to the unity and local wisdom of the Poda Na Lima. These problems are presented in a varied context (complete with cultural portraits) and are sourced from facts and the environment. Each problem presented is followed by guiding questions so that students can solve problems and build various concepts and principles of Pancasila education that are being studied. This book also contains assignments or activities that encourage students to seek and obtain information through images, and oral or written ideas. At the end of this book, there are practice questions for students to work on during learning and outside of school in collaboration with parents.

### Development Results

The CRT learning model has been designed and then developed, the following is an explanation: *Self-identification*, in this stage students and teachers explore the cultural identity of Poda Na Lima. Students learn about the cultural background of Poda Na Lima, the values of Poda Na Lima culture, and the benefits of practicing Poda Na Lima culture. Teachers also learn about the cultural background of students and how it can affect their

learning. *Cultural understanding*, in this stage students and teachers learn about the Poda Na Lima culture. Students learn about the Poda Na Lima culture as well as other cultures related to the Poda Na Lima culture, both locally and globally. Teachers also learn about different cultures, and how they can impact student learning. *Collaboration*, at this stage, students and teachers work together to build a broader understanding of Poda Na Lima culture. Students work together with their friends in making plans to carry out Poda Na Lima culture in class, school, or at home. Teachers also work together with students to create a clean, comfortable, and beautiful learning environment through Poda Na Lima culture. *Critical reflections*, in this stage students and teachers reflect on their experiences and learn from them. Students reflect on their understanding and implementation of the Poda Na Lima culture. Teachers also reflect on their teaching practices and how they can be more responsive to students' cultures.

Next is the development of instruments for data collection. After the expert assessment of the questionnaire instrument, question sheet instrument, observation instrument, and interview instrument, validation was carried out as in Table 2.

**Table 2.** Instrument Validation Recapitulation

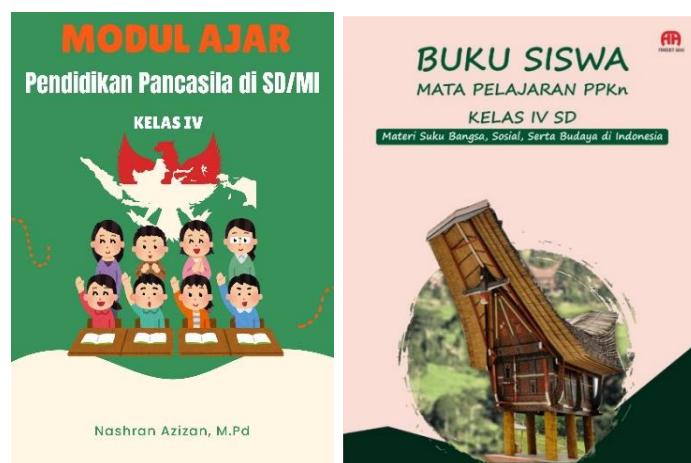
Instrument	Percentage	Category
Questionnaire sheet	90%	Very Valid
Question sheet	84%	Valid
Observation sheet	92%	Very Valid
Interview sheet	90%	Very Valid

Table 1 shows a recapitulation of the validation results of the developed instruments. On average, the instruments developed such as questionnaires, question sheets, observations, and interviews are categorized as very valid and suitable for use as tools to collect data for this study. The test items in the developed test were tested for validity, the results showed that all R count values were  $> 0.3$  (R table) and significant, with all p-values  $< 0.05$  and the conclusion is that all questions in the questionnaire are valid and reliable with a Cronbach's Alpha value = 0.71108. So the conclusion is that 19 questions in the essay test are included in the valid and reliable category, so they can be used as a test of student competency in the Pancasila Education subject on the subject of ethnic and cultural diversity in Indonesia.

Development of learning tools as supporting power, after assessment by experts and suggestions for improvement. Table 3. shows before revision and after revision. The revised results can be seen in Figure 2.

**Table 3.** Revision of CRT Learning Model Products

No.	CRT Model Development Products	Before Revision	After Revision
1.	Modul	On page 37 in the CRT model book, the activity description section needs to be improved to practice more of the Poda Na Lima culture when implementing the CRT model.	The steps for practicing the Poda Na Lima culture in implementing the CRT model have been improved.
2.	Student Book	On page 23 of the student's book, contextual examples need to be added, accompanied by pictures of everyday life, so that students can easily understand and can always practice them.	Examples have been added along with pictures.



**Figure 2.** Learning Tools

The assessment of the teaching module conducted by experts has obtained results. The results have an average percentage of the validation value of the teaching module in the valid category with a value of 86.18%. Meanwhile, expert assessment data for student books was categorized as valid with a value of 89.65%. The Student Book is quite good, so it can be used by students as a learning resource.

### Implementation Results

The results of the implementation of the CRT model are described below:

#### Self-identification

Students are invited to identify the origins of ethnic groups, customs, and family culture. Then recognize the cultural values adopted in everyday life, until realizing the importance of cultural identity in forming self-identity. In the process of implementing the activity, the teacher begins by arousing students' curiosity through stories or short videos about cultural diversity in Indonesia.

The teacher then explains the learning objectives, namely recognizing the cultural identity of each student. Students are asked to reflect on and record things such as the name of the tribe or area of origin of the family, customs or habits that are usually carried out in their family, typical foods, traditional clothing, and regional languages used.

#### Cultural understanding

Students are invited to deepen their knowledge about various cultures in Indonesia, compare the similarities and differences of their culture with other cultures, and develop an attitude of mutual respect for cultural diversity. During the learning process, the teacher shows videos about cultural diversity in Indonesia, such as regional dances, traditional clothing, and cultural festivals from various regions. The teacher emphasizes the message that cultural diversity is a national treasure that needs to be respected. Students are invited to explore other cultures by observing the videos. Students are divided into several small groups to discuss the culture being studied. Each group compares the similarities and differences of the culture they find with their own culture.

#### Collaboration

Students are invited to collaborate with friends who have different cultural backgrounds, create works or complete joint assignments that represent cultural diversity, and practice Pancasila values such as cooperation. During the learning process, the teacher reminds students that diversity is a strength and cooperation can strengthen relationships between individuals. Students are divided into heterogeneous groups based on differences in culture, interests, or academic abilities. Each group consists of 4-5 students. The teacher gives each group assignments, for example: writing in the form of a mini book containing experiences of participating in cultural activities such as *poda na five*, starting from what it means, its purpose, and its benefits. Then each group presents the results of their work in front of the class. The teacher provides positive feedback and highlights the values of cooperation that they have demonstrated.

#### Critical reflections

Students are invited to evaluate their attitudes and thoughts towards cultural diversity, relate the cultural values learned to everyday life, and identify real actions that can be taken to appreciate diversity. During the learning process, students are invited to discuss in small groups or individually about their experiences in understanding diversity. The teacher gives guiding questions, such as What have you learned about the importance of appreciating other cultures? What is the impact of cultural diversity on our lives as an Indonesian nation? Then students are asked to write a personal reflection in the form of a short essay or daily journal about what they have learned and how they will apply it in everyday life. Several students share the results of their reflections in front of the class, followed by feedback and group discussions. Then the teacher directs students to conclude the learning by emphasizing the importance of real actions, such as appreciating friends with different cultures, maintaining harmony, or preserving local culture.



The difference in the implementation of the CRT learning model in trial I and trial II lies in the addition of more specific materials on the poda na lima culture by showing various videos, thus helping students to better understand the subject matter. In addition, in trial II the teacher invited students to do poda na lima cultural activities, this aims for students to practice it in everyday life from the knowledge that has been explained.

### **Evaluation Results**

After the CRT learning model was implemented, a student competency test was conducted on the aspects of knowledge and skills as well as observation of student attitudes during the learning process. Data on student competency assessment during learning using learning devices obtained results. grades in class IV-A starting from trial I to trial II, students obtained an average score of 85.27. In class IV-B students obtained an average score of 85.48 and 85.35 in class IV-C. From the three classes, the total value of learning outcomes obtained a classical average of 85.36.

Assessment data of the implementation of the CRT learning model using learning devices developed based on observer assessments. The results of observations of the implementation of the CRT learning model in class IV-A in trials I and II had an average value of 86,5%. In class IV-B trials I and II had an average value of 89% and in class, IV-C had an average value of 87%.

The results of descriptive statistical tests are statistical methods used to analyze data by describing or presenting information contained in the data that has been collected. This test aims to provide a description or explanation of the available data, by considering the average value, standard deviation, and minimum and maximum values.

The post-test results showed a significant increase in the average score. In Class A, the post-test 1 results showed an average score of 74.25 with a range of scores between 55 and 88, while in post-test 2, the average increased to 85.57 with a range of scores from 75 to 95. Class B had an average post-test 1 of 72.48 with a minimum score of 60 and a maximum of 83, while in post-test 2, the average score increased to 81.68 with a range of 70 to 88. Class C showed a post-test 1 result with an average of 73.26 and a range of scores from 63 to 81, and increased to 80.94 in post-test 2 with a minimum score of 72 and a maximum of 87. In addition, the standard deviation in each post-test showed a smaller variation in scores, indicating consistency in student learning achievement. Thus, the application of the CRT model descriptively proved effective in improving student understanding, as reflected by the increase in the average post-test scores in all classes studied.

After being tested for normality using the Shapiro-Wilk test, the results of all post-test data from the three classes showed normality because all p-values were greater than 0.05. After the prerequisites for the normality test were met, a hypothesis test was conducted. The results showed a significant difference between post-test 1 and post-test 2 in all classes. In Class A, the average score of post-test 1 was 74.25, while post-test 2 increased to 85.57 with an average difference of 11.31. A significance value of 0.000 indicates that this increase is very statistically significant.

Class B showed similar results, with a post-test 1 mean of 72.48, increasing to 81.68 in post-test 2. The mean difference was 9.20, and the significance value was also 0.000, confirming a significant increase. In Class C, the post-test 1 mean was 73.26, while the post-test 2 mean increased to 80.94, with a mean difference of 7.67. The test results showed a significance value of 0.000, again indicating a significant increase. Overall, the CRT learning model was proven to have a positive and significant impact on improving student learning outcomes in all classes tested, marked by a significant increase in the mean value of post-test 1 compared to post-test 2.

Based on the test results and observation results that have been analyzed, the conclusion is that the CRT learning model is classified as effective. While the level of practicality is classified as practical as the students' responses when interviewed, the results are: they like the appearance of the book used, they easily understand the subject matter in the book, like to read student books, they feel happy after reading student books, because it is easy to have pictures and is easy to read, they give suggestions if the book can be taken home. The response from the class teacher during the interview also gave a positive response to the learning process carried out by the researcher in implementing the CRT model, the results are: that the learning device in the form of a teaching module developed by the researcher is very good, the learning device in the form of a Student Book developed by the researcher is very good, the CRT learning model that has been implemented by the researcher is suitable for elementary school level, especially in Pancasila education subjects, the CRT learning model that has been implemented by the researcher and its learning device is suitable for use.

The results of the research that have been described prove that the CRT Learning Model based on the Merdeka Curriculum can improve the learning outcomes of grade IV students of MIN 1 Padangsidempuan in the Pancasila Education subject on the subject of ethnic and cultural diversity in Indonesia. This has previously been proven by Azizan et al. (2024b) in their research, the results proved that the learning outcomes of students at SD Negeri 200407 Padangsidempuan increased in the Pancasila and Citizenship Education subjects after the CRT learning model was implemented. The results are the same as those carried out by Azizan, Setiawan, Hidayat, & Lubis (2024a) proving that students' PPKn learning outcomes increased after the implementation of the CRT learning model.

Culturally and ethnically sensitive teaching practices are essential for the adjustment of ethnically diverse students (Ialuna, Civitillo, & Jugert, 2024). Culturally responsive teaching should be an instructional approach that helps teachers empower students and leverage their language, literacy, and culture (Thomas & Sebastian, 2023). Culturally responsive learning leverages students' knowledge, experiences, and culture (Walker, 2023).

Through culturally responsive approaches, educators can enhance the abilities of diverse learners by tapping into their academic skills as well as their social and emotional development (Gay, 2018). According to Ladson-Billings, culture plays a central role in

helping students gain insight into themselves and others, organize their social interactions, and build their understanding of knowledge (Bito & Fredy, 2020). Cole argues that culture is not a possession, but a means to live life (Isa, Bunyamin, & Phang, 2022). On that basis, Gay suggests that cultural responses are important to focus on teaching (Solano-Flores, 2019). This means that through responsive learning, local wisdom can help students interact politely so that their character attitudes develop. This is also in line with Vygotsky's theory that development depends on interactions with people (Gros & López, 2016). Culture reflects how people live and interpret their experiences in everyday life (Ogodo, 2024).

Teachers must be aware of the importance of CRT and their vision and knowledge of cultural diversity (Alhanachi, de Meijer, & Severiens, 2021). Teachers must also develop how culturally responsive teaching pedagogy is implemented and used (Achamrah, 2022). Gay explains that educators who apply culturally responsive teaching need to possess a deep understanding of cultural diversity. They should be able to incorporate students' cultural backgrounds, experiences, and viewpoints particularly those from various ethnic groups into the curriculum. Furthermore, they are expected to be attentive to the unique cultural needs of their students, foster inclusive and respectful classroom environments, utilize appropriate cross-cultural communication techniques, and adapt their instructional methods to accommodate cultural differences (Highfield, Webber, & Woods, 2024).

Teachers are a bridge for exchanging information between students in the learning process (Ernawati, Rosana, Atun, & ., 2024). The purpose of the CRT learning model is to strengthen student empowerment by utilizing culturally relevant connections to foster knowledge, social competencies, and positive attitudes (Miskiyyah, Buchori, & Muhtarom, 2023). According to Darling-Hammond, Hyler, and Gardner, the quality of teachers plays a crucial role as the most significant school-related factor impacting students' academic achievement (Castagno, Dass, Joseph, Keene, & Macias, 2023).

It is essential to create an effective teaching framework with improved curriculum quality to be clear and transparent to students (Berlian & Huda, 2022). The Merdeka Curriculum aims to improve the previous curriculum by giving schools greater autonomy (Jasiah et al., 2024). According to Prater and Devereaux, educators who embrace culturally responsive teaching typically incorporate cultural understanding and adjust both their curriculum and instructional methods to accommodate the diverse backgrounds present in their classrooms (Nganga & Kambutu, 2024).

The results of a study by Howe et al. in 2021 and Wrench et al. in 2020 found that curricula and teaching strategies that do not consider or utilize culture tend to be less effective in providing meaningful learning experiences (Rudhumbu & du Plessis, 2021). Through the Pancasila Education subject, students are expected to develop into intelligent, trustworthy, honest, and responsible individuals who embody the values of Pancasila. This aligns with the provisions outlined in the Decree of the Head of the Education Standards, Curriculum, and Assessment Agency of the Ministry of Education,

Culture, Research, and Technology Number 032/H/Kr/2024 regarding Learning Outcomes for Early Childhood, Primary, and Secondary Education Levels within the Merdeka Curriculum. The decree explains that Pancasila Education integrates both Pancasila and citizenship education, aiming to nurture students into responsible and ethical citizens. As a key subject in realizing the profile of Pancasila students, it is implemented through civic learning practices grounded in Pancasila principles, the 1945 Constitution, the spirit of Bhinneka Tunggal Ika, and the integrity of the Unitary State of the Republic of Indonesia. Therefore, learning at all levels of education must be directed to provide sustainable contributions to life and sustainable development (Jayantini, Hikmahyanti, Arjawa, & Jayantiari, 2024).

Students are therefore expected to acquire 21st-century competencies that align with the nation's unique characteristics. In its implementation, teachers are required to select three project themes annually and allocate 30% of instructional time to carrying out these projects (Purnomo, Yulianto, Mahdiannur, & Subekti, 2022). School culture is closely related to the culture of the school community and is influenced by the social environment (Al-Mughyirah, Abunaser, Al-taher, & Al-Otaibi, 2023). If the younger generation does not care about their own culture, for example, Reyog Ponorogo (a dance art with a lion's head and peacock feather decoration), then it is likely that the culture will be recognized by other countries (Syafii, Buntoro, Sugianto, Nurohman, & Sutanto, 2022). Understanding local cultural values is very important in developing strong character (Sakti, Endraswara, & Rohman, 2024).

#### **D. Conclusion**

This study aimed to develop culturally responsive learning tools in the form of teaching modules and student books based on the *Culturally Responsive Teaching* (CRT) model aligned with the Merdeka Curriculum, particularly for Pancasila Education in elementary schools. Unlike previous studies that merely adopt CRT, this research contextualizes the model within the local Angkola-Mandailing culture through the values of *Poda Na Lima*.

The developed model was assessed for its validity, practicality, and effectiveness in a comprehensive manner, covering cognitive learning outcomes, student engagement, and the formation of positive attitudes toward cultural diversity and Pancasila values. Results showed that the learning tools are valid (87.91%), effective (with students' average achievement scores of 85.36), and feasible to implement (with an observed implementation score of 87.5%).

Teachers found the model easy to apply, and students were more engaged and better able to understand the learning materials due to the culturally relevant approach. These findings suggest that CRT, when integrated with local cultural wisdom, not only improves academic outcomes but also fosters character education.

This study contributes to the broader application of CRT in Indonesia by offering a concrete, adaptable model that can be used as a training reference for improving teacher competencies. It also serves as a practical guide that can be disseminated and

implemented across various elementary schools. The researcher recommends systematic integration of the CRT model into Pancasila Education and student character programs. Future studies are encouraged to explore the adaptation of this model in other local cultural contexts across Indonesia.

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