

Implementation of the Pancasila Student Profile Strengthening Project in Natural and Social Science Learning on Climate Change Material in Elementary Schools

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Abstract: *Climate change education is one of the theme options offered in the Pancasila Student Profile Strengthening Project as part of the implementation of the Merdeka Curriculum at various levels of education in Indonesia. In the Natural and Social Sciences (IPAS) learning for Grade IV Elementary School, there is material on Climate Change and Its Impact. The principles and approaches used in the Merdeka Curriculum for the implementation of climate change education are FRIENDLY. (Relevan, Afektif, Merujuk Pengetahuan, Aksi Nyata, dan Holistik). Then, the purpose of this research is to describe (1) lesson planning, (2) lesson implementation, (3) and evaluation of Natural and Social Sciences learning on the Climate Change theme for 4th grade Elementary School. This research uses a mixed-methods approach with a convergent parallel design. The primary data for this research consists of observations and interviews with teachers and elementary school principals in Lampung Province to obtain perception data related to the implementation of the Merdeka Curriculum. The data analysis technique used is the convergent parallel mixed methods. The researcher collects and analyzes quantitative and qualitative data simultaneously and independently, then combines the quantitative and qualitative analysis results in the final integration of the research. The research results show that: 1) Learning planning uses the available teaching materials. 2) The implementation of learning is in accordance with the prepared teaching module, which includes initial activities, core activities, and final activities. 3) Learning evaluation uses formative assessment, but not all of it has been implemented, namely diagnostic assessment.*

Keywords: lesson preparation, convergent parallel, teaching modules, formative assessment, and Merdeka Curriculum.

INTRODUCTION

The Independent Learning Program is a philosophy that comes from the thoughts of Ki Hajar Dewantara, the Father of National Education. Independent learning focuses on the principle of freedom in applying essential and flexible materials according to the interests, needs, and characteristics of students. Independent learning provides freedom for teachers and students to apply an effective and enjoyable learning system so that it will later help improve the quality of the national education system. According to Ki Hajar Dewantara (in Talsania, 2023), educating and teaching is a process of humanizing humans so that it must liberate humans and all aspects of life, both physically, mentally, physically and spiritually. It

is further explained that education is an activity to create human character, so that they become complete beings according to their nature (Arifin, 2023).

To implement the national education philosophy of Ki Hajar Dewantara, it is hoped that it will be able to instill good character in students and increase critical reasoning skills so that they reflect intelligent and noble students. Good education will create a cultured country with good civilization in the future (Rahayuningsih, 2021). This is in accordance with the vision of Indonesian Education, which is to realize an advanced Indonesia that is sovereign, independent and has personality through the creation of Pancasila students who are critical thinkers, creative, independent, faithful, devoted to God Almighty, and have noble morals, work together and have global culture. What is meant by the Pancasila Student Profile is the embodiment of Indonesian students as lifelong learners who have global competence and behave in accordance with the values of Pancasila, with its six main characteristics, namely: faithful, devoted to God Almighty and have noble morals, global diversity, work together, independent, critical and creative reasoning.

Projects to strengthen the achievement of the Pancasila Student Profile are developed based on certain themes set by the government (Rasidi et al., 2024). The project is not directed at achieving certain learning achievement targets so it is not tied to subject content. One of the themes that can be chosen is Climate Change Education to strengthen the Pancasila Student Profile.

It is important for the younger generation to learn to understand climate change because climate change is currently a complex global challenge with a broad impact on human life (Valentin, 2023). Therefore, appropriate education is needed to increase student awareness and build a critical mindset towards the increasingly worrying climate change problem in Indonesia. Indonesia is ranked in the top third of the countries most vulnerable to the climate crisis due to its geographical situation (an archipelagic country), social (people's jobs depend heavily on nature). This vulnerability is even higher due to the still minimal understanding of the urgency of the climate crisis (Aditomo, 2024). Children are the generation that faces the climate crisis directly both now and in the future; they deserve adequate information and capacity building to be able to respond to the challenges of the climate crisis.

Climate change education is one of the theme options offered in the Pancasila Student Profile Strengthening Project as part of the implementation of the Independent Curriculum at various levels of education in Indonesia (Press Release Manager, 2024). The principles and approaches used in the Independent Curriculum in the implementation of climate change education are RAMAH (Relevant, Affective, Referring to Knowledge, Real Action, and Holistic). With this provision, facilitation is needed for teachers in designing the Pancasila Student Profile Strengthening Project (P5) based on Climate Change to Realize Independent Learning in Grade V of Elementary Schools in Lampung Province. Elementary schools in Lampung have generally implemented the Independent Curriculum (Putra, 2024; Yufiarti et al., 2023). In Natural and Social Sciences (IPAS) Learning in Grade IV Elementary Schools, there is material on Climate Change and Its Impact. The learning system and delivery of the material provided must of course be educational in nature with a

presentation pattern that can attract interest and motivate real action by students as school citizens and members of society to face climate problems and various efforts to overcome them.

Anindito Aditomo (in Umara et al., 2024) stated that climate change education is very necessary to form children's awareness and understanding from an early age so that they can play an active role in responding to climate change. Education about climate change from an early age is indeed one of the best ways to reduce the risk of disasters (mitigation) due to climate change in the future. Climate change education can encourage elementary school students to carry out activities that minimize carbon emissions so that they are balanced and environmentally friendly.

Climate change-based education introduces learning related to the causes and impacts of climate change, with the aim of encouraging climate-resilient development and reducing the vulnerability of communities to face uncertain lives. Thus, learning objectives can be aligned with sustainable development goals. Handling climate change through education and learning in schools is one step that can support the realization of the 13th Sustainable Development Goals SDGs, namely regarding handling climate change. Through climate change education, it is hoped that it can provide awareness and increase the knowledge, understanding, and participation of elementary school students as members of society in handling climate change. With the existence of SDGs, it is hoped that the next generation of the nation can carry out sustainable development with a wise and caring attitude in the use of existing resources. One of the important points that is the basis for realizing other points in the SDGs is point 13, namely climate action. SDGs can be integrated into one of the educational processes, namely climate change-based school learning (Pramswari, 2024).

The main principles of climate change-based education are understanding climate change, climate change adaptation, and climate change mitigation (Arwan in Septiani, 2023). These three topics must be supported by all learning activities, reflections, and connections between students and learning resources related to climate change that can be managed more broadly. Furthermore, the focus of climate-based education includes improving education, awareness and human and institutional capacity for climate change, mitigation, adaptation, and impact reduction and early warning. Therefore, the purpose of this study is to describe: learning planning, learning implementation, and learning evaluation on Climate Change material in Natural and Social Science Learning in grade IV Elementary School.

METHOD

This study uses a combined approach with a convergent parallel design (Wicaksono, 2022; Yufiarti et al., 2023). The primary data of this study are in the form of observations and interviews with teachers and principals of Elementary Schools in Lampung Province to obtain perception data related to the implementation of the Merdeka Curriculum. The data analysis technique used is the combined convergent parallel method. Researchers collect and analyze Quantitative and Qualitative data simultaneously and independently, then

combine the results of the quantitative and qualitative analysis in the final integration of the study.

RESULTS AND DISCUSSION

In the Independent Curriculum, co-curricular programs are implemented in the form of the Pancasila Student Profile Strengthening Project (P5) which is developed based on a specific theme set by the government. P5 does not aim to achieve a specific learning achievement target so that it is not tied to the subject matter (Pratama & Dewi, 2023). Co-curricular in P5 is a breakthrough in creating flexible learning, increasing motivation to actively participate in face-to-face learning, working together, creating and expressing to produce ideas and concepts through actions that can have an impact on oneself and the surrounding environment (Shalikhah, 2022). Co-curricular activities can improve conceptual understanding and learning achievement. Likewise, the research of Sami et al. (2024) found a positive relationship between co-curricular activities and academic achievement.

Strategic steps of the learning project, Internalization of Pancasila values is an effort to improve the quality of success in the subjective actualization of Pancasila so that the practice of Pancasila can take place in an orderly manner (Rasidi et al., 2024). The relationship between the internalization of Pancasila values described through the Pancasila Student Profile with the actualization and practice of Pancasila.

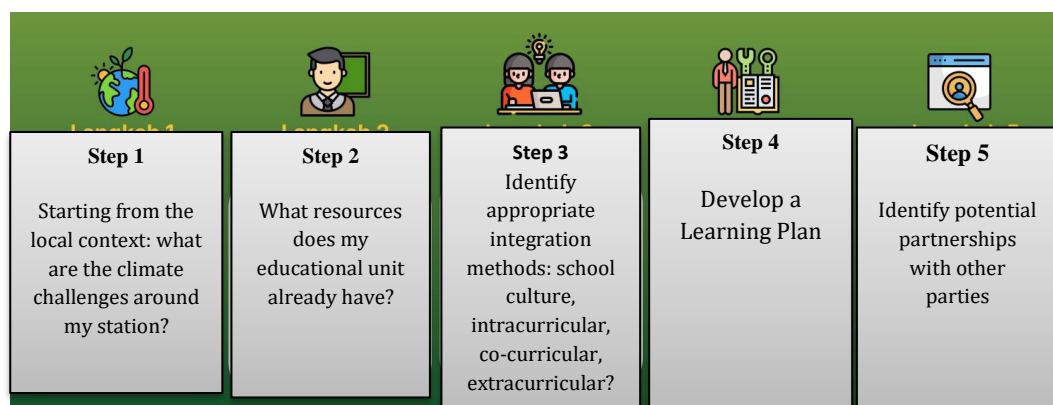


Figure1
Concrete steps for internalizing climate change education

The implementation of the Independent Curriculum in learning is measured based on the teacher's answers to questions with 5 options. The analysis was carried out in general by summarizing the results of the analysis of the implementation of the Independent Curriculum in classroom-based learning at the Elementary School level in Lampung Province in a summary table of the analysis results.

Table 1. Summary of Analysis Results of the Implementation of the Independent Curriculum in Learning

| No | Indicator | Number of Questions | Average | Percentage (%) |
|------------|---|---------------------|---------|----------------|
| 1 | Learning Planning | 5 | 3,77 | 75,4 |
| 2 | Implementation of Learning Planning | 6 | 4,64 | 77,4 |
| 3 | Assessment, Reflection, and Reinforcement | 6 | 4,57 | 76,2 |
| Σx | | 17 | 4,4 | 87,2 |

The data from the table shows that the average result of the implementation of the Independent Curriculum in learning at the Elementary School level in Lampung Province is 4.4 with a percentage of 87.2%. The three aspects observed are learning planning, implementation of learning planning and assessment, reflection, and reinforcement. The following graph shows the percentage of the implementation of the Independent Curriculum in class-based learning for each indicator.

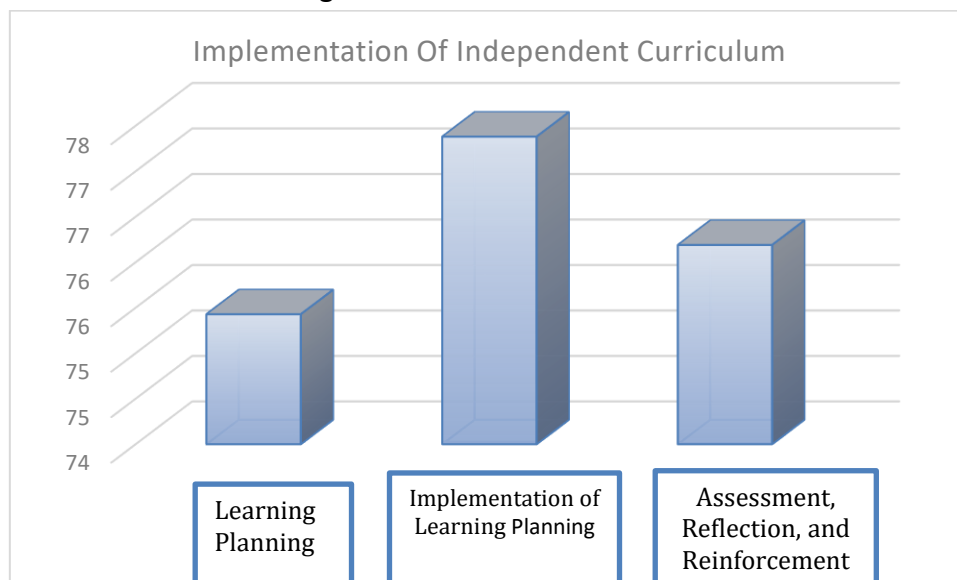


Figure 2. Percentage Graph of Implementation of Independent Curriculum in Learning

The histogram graph above illustrates the implementation of the Independent Curriculum in classroom learning at elementary schools in Lampung Province which was identified through answers from elementary school teachers. The data shows that the highest implementation of the Independent Curriculum in learning occurred in the Implementation of Learning Planning aspect reaching a percentage of 77.4%, while the lowest implementation of the Independent Curriculum in learning occurred in the Learning Planning aspect with a percentage of 75.4%. Meanwhile, the average result of the implementation of the Independent Curriculum as a whole was 4.4 with a percentage of 87.2%. This shows that the implementation of the Independent Curriculum in learning at the Elementary School level in Lampung Province has been successfully implemented optimally.

Climate Change Material Learning Planning in the Independent Curriculum

The curriculum determines the material taught in class. The curriculum also influences the speed and teaching methods used by teachers to meet the needs of students. That is why the Ministry of Education and Culture-Research and Technology developed the Independent Curriculum as an important part of efforts to restore learning from the crisis that we have experienced for a long time. In the Independent Curriculum, teachers have the freedom to choose various teaching tools so that learning can be adjusted to the learning needs and interests of students (Ministry of Education and Culture of the Republic of Indonesia, 2023).

In general, teachers have understood the general information regarding the Pancasila Student Profile Strengthening Project (P5). As stated by Okta Novi Yani (2024), teachers need to improve their skills and knowledge related to learning in schools. Teachers can also learn how technology and learning methods. The projects carried out vary because they include fun learning for students. The topics developed can add students to a learning process so that students can learn according to the material adjusted by the teacher. Another opinion was expressed by Yana Amanto (Amanto, 2024), the Pancasila Student Profile Strengthening Project (P5) is an initiative that aims to develop positive student character through education that is integrated with moral and social values. P5 aims to create a learning environment that supports the development of student character and shapes them into individuals who are not only academically successful but also have good character. The problem topics raised from the student environment focus on issues that affect the teaching and learning process and student development regarding climate issues and their effects.

The following are the steps in climate change learning that is oriented towards the Project Based Learning (PjBL) learning approach (Septiani, 2023).

- a. Determination of essential questions, namely questions that can assign students to do an activity including topics that are in accordance with real world reality and relevant to students. In relation to climate change, basic questions begin by providing stimulus about climate change issues, for example the phenomenon of global warming..
- b. Designing a project plan that is carried out collaboratively between teachers and students. Students are expected to feel "ownership" of the project. The plan contains rules of the game, selection of activities that can support project completion..
- c. Preparing a schedule of activities in completing a project, including: project completion flow, project deadline, getting students to plan new methods, guiding students when they create methods that are not related to the project, and asking students to provide an explanation (reason) for choosing a method..
- d. Monitoring students and project progress. The monitoring process can be done by using a rubric to record all important activities..

- e. Testing results to help teachers measure the achievement of standards, provide feedback on the level of understanding that students have achieved, and help teachers develop subsequent learning strategies.
- f. Evaluating the experience as the end of the learning process, teachers and students reflect on the activities and results of the project that has been carried out.

Steps for integrating climate change education into intracurricular learning can be done in the following ways:

1. Study the Climate Competency Map
The climate change education competency map is available for the Foundation Phase to Phase F. The competencies of each phase are grouped into the elements of Cause, Impact, Adaptation, and Mitigation.
2. Identify and Select Climate Competencies
Identify climate competencies that are appropriate to the learner's phase. Select and prioritize competencies based on the results of climate resilience mapping.
3. Determine the Subjects
In which subjects can the competencies be inserted? Look for learning materials that are in line with the climate competencies that have been selected.
4. Plan Learning
Prepare Learning Objectives (TP) based on subject CP. Insert climate competencies in the Learning Objective Flow (ATP), and detail them in the learning plan (Aditomo, 2024).
Example of learning objectives: The seasons in an area vary depending on the climate of the area. In this chapter, you will identify the types of seasons based on climate, climate change, and problems that occur related to climate change.

Implementation of Climate Change Material Learning in the Independent Curriculum

The curriculum has a major influence on what teachers teach, as well as how the material is taught. Therefore, a well-designed curriculum will encourage and facilitate teachers to teach better (Amiruddin, 2022).

Winarni (2024) explains that the stage of readiness to understand the concept of P5 and how to learn the basics of P5 is by designing a project planning for organizing a team such as forming groups, preparing activities or the arrangement of activities to be carried out, implementing projects such as implementing activities, evaluating and reflecting, then presenting the results and follow-up. The dimensions and themes of the P5 project chosen are Climate Change.

The allocation of P5 time in this elementary school has 2 Pancasila Profiles with different themes each year. The teacher prepares the theme of Climate Change that is developed, namely strengthening the character of caring for the environment and students' critical thinking skills regarding climate change on the theme towards a prosperous society. The first step in preparing the P5 module is using fun materials. So, teachers must be able to carry out the learning process using creative and varied methods. A different opinion was

expressed by Sugianto (2024), in the preparation steps for the P5 module, the things that are done include identifying student needs (analysis), designing interesting activities, and compiling modules that are easy to understand.



Figure 3. Forms of Integration of Climate Change Education in Intracurricular Activities

Evaluation of Learning on Climate Change Material in the Independent Curriculum

The results of P5 are documented in the classroom, precisely in the Class Corner section. In managing and compiling P5 reporting, all relevant data (assessment results) photos, videos, data analysis, and compiling reports (project implementation and results achieved) are collected. Educators use journals in profile projects to document student

learning development. The use of rubrics in P5 is to provide clear standards for assessing student performance. Management of P5 Assessment results is carried out by storing, analyzing deficiencies and weaknesses, and utilizing them to improve the learning process. The P5 Report Card format consists of personal data, title description, objectives, stages, results, student performance assessment, student reflection, teacher comments (appreciation of suggestions). The report card in P5 has a role as evidence of student achievement in developing the Pancasila Student Profile.

Evaluation of the implementation of the profile project that was applied was to collect suggestions/feedback from students, teachers, parents, and directly observe the implementation of the project. The principal of SDN 34 Gedong Tataan conducted observations in classes every 2 months to find out the progress of teachers and students (Sutini, 2024). Surveys were conducted from class to class from the beginning to the end of the activity. The P5 evaluation tools and methods used were interviews conducted to dig deeper into information about the experiences of students and teachers. The follow-up carried out to expand the impact and benefits of the profile project was collaboration with various parties to support the implementation of P5 and continue the project in the following year with a different theme. The implementation of P5 at SDN 2 Kesuma Dadi was appropriate because it was guided by the principles in Pancasila (Sugianto, 2024). The implementation of P5 at SD Pancasila is also in accordance with the values of Pancasila if it is implemented by considering aspects of the values of Pancasila (Winarni, 2024).

The learning objectives are aligned with the dimensions of the Pancasila Student Profile that we want to develop. Activities in mapping elements and sub-elements of P5 include identifying activities, describing sub-elements of each element and connecting them with each activity. The stages of developing the P5 activity flow use various activities to motivate students. Then, formative assessments are carried out during the learning process, while summative assessments are carried out at the end of the project.

The implementation of the learning process towards improving environmental awareness and critical thinking skills of students regarding climate change on the theme towards a prosperous society as a whole is good. Because the number of results from the context components, input, process, and learning evaluation results show a value of 81% which is included in the good category. In this context component there are predetermined criteria, namely learning facilities and infrastructure such as smartphones/laptops along with their internet networks, applications or platforms used, and conducive learning places.

CONCLUSION

The results of the study show that: 1) Learning planning uses available teaching tools. 2) Learning implementation is in accordance with the teaching modules that have been prepared, namely initial activities, core activities, and final activities. 3) Learning evaluation uses formative assessment, but has not been fully implemented, namely diagnostic assessment.

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