Jurnal Pembelajaran Dan Biologi Nukleus p-ISSN: 2442-9481
Vol 10 (1): 170-180, March 2024 e-ISSN: 2685-7332

An Analysis of the Relevance of the Pancasila Learner Profile in the Learning of Biology

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Submitted December 24th 2023 and Accepted February 28th 2024

Abstract

Pancasila education is relevant to biology learning because it helps in the development of the Pancasila Learner Profile, which includes characteristics such as critical thinking and creativity. The purpose of this study was to analyse the relevance of Pancasila Learner Profile in biology learning and the challenges in integrating Pancasila values in biology learning. This research uses descriptive method with the sample being students of grade XII of SMA Negeri 1 Aek Kuo, SMA Negeri 1 Rantau Selatan and SMA Negeri 2 Rantau Selatan. Data collection was done through interview and observation. The sampling technique used in this research is purposive sampling because this school has implemented an independent curriculum. The results showed that for the dimension of faith, fear of God and noble character, students are required to pray before and after learning, the dimension of global citizenship, students are divided into groups to conduct experiments, the dimension of mutual cooperation, students carry out greening activities to preserve the environment. The independent dimension, students work independently on biology tasks, the critical thinking dimension, students solve problems that arise during experiments, and the creative dimension, students produce work from recycling waste

Keywords: *Biology Learning, Pancasila Learner Profile, Relevance*

https://doi.org/10.36987/jpbn.v10i1.5328

INTRODUCTION

Pancasila education plays an important role in the character building of students. It is important in developing the character of primary school students in their daily lives (Sopia et al. 2023). Pancasila is seen as the foundation of the state and the way of life of the Indonesian people, and cannot be replaced by secular ideologies (Arifin et al. 2023). The Pancasila profile, which includes faith, piety, noble morality, global diversity,

p-ISSN: 2442-9481
e-ISSN: 2685-7332

independence, mutual cooperation, critical thinking and creativity, supports students' development in the following areas (Kiska et al. 2023). Implementing the Project Based Learning (PLO) model using comic books has been shown to significantly improve student learning outcomes and engagement in the learning process (Firdayani et al. 2023). In addition, the development of Pancasila educational values contributes significantly to fostering anti-corruption attitudes in students, shaping their character and behaviour to be honest, responsible, fair and with a spirit of helping each other (Yuliansyah et al. 2023). The Merdeka Curriculum, which emphasises the values of Pancasila, aims to improve the quality of education in Indonesia and to instil a character integrated with Pancasila norms (Sopia et al. 2023). However, the erosion of Pancasila values due to globalisation and technological advances is a threat to the younger generation's understanding and application of Pancasila in everyday life (Kadir 2023).

The negative effects of globalisation, such as bullying, fighting and sexual harassment, have affected students' character development (Maghfiroh et al. 2023). To address this, the government has launched the Pancasila Learner Profile project, which aims to strengthen Pancasila values in education (Kadir 2023). The project focuses on building character and teaching skills through in-school and out-of-school activities (Widarini and Suterji 2023). One strategy for implementing the Pancasila Learner Profile is Problem-Based Learning, which has been successfully implemented in science education at SMPN 37 Semarang (Handayani et al. 2023). The application of Pancasila values in daily life is very important for students to face future challenges, and can be achieved through practice, habituation, exemplary behaviour and environmental conditioning (Afifah and Fadilah 2023).

Pancasila education is relevant to biology learning because it helps develop the Pancasila learner profile, which includes characteristics such as critical thinking and creativity (Arifin et al. 2023). By incorporating student-centred learning models such as Discovery Learning, which encourages critical thinking and group activities, the Pancasila Student Profile can be nurtured in biology classes (Syofyan et al. 2022). This approach is in line with the vision of the Ministry of Education to create Pancasila students who are globally competent and behave in accordance with Pancasila values (Minarti and Sa'diyah 2023). In addition, students' interest in learning, even in subjects such as biology, is greatly influenced by the management of Pancasila Education (Benawa 2022). Therefore, students' interest in biology and other related subjects can be increased by improving educational management in teaching Pancasila education (Rondli 2023).

The profile of Pancasila learners in the context of biology learning varies across studies. Research findings (Handayani et al. 2023) In realising the profile of Pancasila students in science learning can be done by using problem-based learning methods to develop critical thinking in students. Research (Syofyan et al. 2022) measured the dimensions of the Pancasila learner profile in PGSD students in science learning and found that the dimensions of the Pancasila learner profile in students are truth to God Almighty and an attitude of caring for the environment. However, a study carried out by (Imania et al. 2022) found that the students' ability to meet the Pancasila learner profile at MTs SA Miftahul Huda Bumijawa is still very low, indicating that the applied learning media and models have not been able to strengthen the Pancasila learner profile. The

Pancasila learner profile in the context of biology learning may vary depending on the particular educational institution and the methods used for teaching and learning.

Implementing the Pancasila Learner Profile in learning biology requires an effective learning strategy. Research Findings (Agustina et al. 2023) conducted a study on the learning strategies used by teachers to strengthen students' Pancasila profiles through the use of differentiated learning, project-based learning and habituation. Efforts to realise the Pancasila Student Profile require the formation and strengthening of students' character education. The strategy of developing the Pancasila Student Profile is carried out by integrating it into formal educational activities. Based on the above explanation, the purpose of this research is to analyse the relevance of Pancasila values in biology learning and the challenges in integrating Pancasila values in biology learning.

METHOD

The research method used was a descriptive method with a qualitative approach. The research was conducted in SMA Negeri 1 Aek Kuo Senior High School, SMA Negeri 1 Rantau Selatan Senior High School and SMA Negeri 2 Rantau Selatan Senior High School. The data collection was done by interview and observation. to the students of grade XI. The sampling technique used in this research is purposive sampling because this school has implemented an independent curriculum. Narrative analysis used in this study using observation sheet instruments.

RESULTS AND DISCUSSION

Relevance of the Pancasila Learner Profile in the Learning Of Biology

Students' character education can be shaped by implementing Pancasila in schools (Widiyani 2023). Pancasila, as the fundamental ideology of the Indonesian state, is relevant to the study of biology in several ways. Pancasila emphasises human values, which can be linked to ethical considerations in biological research and applications. In addition, the principle of social justice in Pancasila can be linked to the equitable distribution of resources and access to health services, which are related to the field of biology. In addition, the dynamic and open nature of Pancasila as an ideology allows it to adapt to the development of science and technology, including biology. The relevance of Pancasila to biology education can be understood through its emphasis on humanity and social justice, and its dynamic nature that allows it to adapt to scientific developments. This relationship highlights the importance of integrating ethical, social and cultural considerations into biology teaching and learning. Aspects of the Pancasila learner profile have 6 dimensions, namely (1) faithful, devoted to God Almighty and noble; (2) global diversity; (3) gotong royong; (4) independence; (5) critical thinking; and (6) creativity. From these six dimensions, effective learning activities are needed to develop the Pancasila learner profile. (Table 1).

Table 1 shows that there is relevance of Pancasila learner profile in biology learning. In the dimension of faith, fear of God Almighty and noble character. Students are used to praying before and after learning, and teachers also provide learning materials that invite students to be grateful to themselves and to God for His creation. Apart from

classroom activities, the school has also created a culture for students and teachers to follow, based on the results of interviews with students regarding the profile of Pancasila students. One of the school cultures implemented for this dimension is the habit of shaking hands with the teacher when entering the classroom. Character culture and character education are closely related. Character culture refers to the values, norms and behaviours that become part of the everyday life of a society, while character education refers to the deliberate and planned efforts to build good character through formal and non-formal education (Suyitno 2012).

Tabel 1. Implementation of the Pancasila learner profile dimension in the learning of biology

No	The dimensions of the Pancasila learner profile are	Implementation
1.	Faithful and noble character, fearing God Almighty	Pupils are required to pray before the lesson begins and at the end of the lesson, the teacher begins the biology lesson where pupils are taught about environmental and health issues..
2.	Global diversity	Students are divided into groups. They carry out experiments/practicals with the teacher.
3.	Gotong Royong -Mutual Assistance	Students carry out greening activities. They bring cleaning equipment from home.
4.	Independent	Students are encouraged to work independently
5.	Critical Thinking	Students solve problems when carrying out experiments/practicals. They analyse the problems.
6.	Creative	Recycled waste is used by students to make handicrafts.

The second dimension is global diversity, which is a form of society that recognises and appreciates culture, the ability to communicate interculturally when interacting with others, and reflection and responsibility for the experience of diversity. The Pancasila Student Profile aims to strengthen the noble values of Pancasila and prepare students for the Industrial Revolution 4.0. It focuses not only on cognitive skills, but also on attitudes and behaviours that are in line with the identity of the Indonesian nation (Cahyaning and Arifin 2023). These efforts aim to produce students who practice the values of Pancasila in their daily lives. The impact of globalisation on the profile of Pancasila students can be seen in the challenges it poses, such as increased cases of bullying and sexual harassment, which affect the formation of the nation's character (Sukirno et al. 2023). In Realising Global Diversity, students are divided into groups to carry out the practicum. Students who have completed the placement are asked to write and discuss a placement report to be presented to other groups.

The third dimension in the Pancasila student profile is gotong royong. This gotong royong dimension aims at cooperation, care and sharing (Nafi 2022). Gotong royong is

seen as a fundamental value that promotes social participation and community support, and is a manifestation of Pancasila values (Lasmawan and Suarni 2023). In the implementation of the dimension of gotong royong in biology learning, the students are asked to bring cleaning equipment because they are carrying out greening activities by cleaning the environment in the school and around the classroom by planting flowers and small trees so that the school looks more beautiful and helps to reduce the current global warming problem. Interviews with students revealed that the school also has a routine schedule for mutual cooperation, which is held on Friday or Saturday by doing community service activities.

The fourth dimension is autonomy. Independence is awareness of oneself and one's situation and self-regulation. The self-directed dimension focuses on developing students' self-management skills and instilling a sense of responsibility (Rodhiyana 2023). It aims to empower students to take ownership of what they learn and to become independent learners. (Rahmadani et al. 2023). Creating learning activities that allow students to explore their potential without restriction is one way of implementing the independent dimension (Imania et al. 2022). In the independent dimension, teachers accustom students to doing biology tasks independently, students are not allowed to discuss with other students and cheat on other students' work.

The fifth dimension is critical thinking. The critical thinking dimension in the Pancasila Student Profile refers to students' ability to distinguish facts from opinions, to identify existing problems, and to not take theories or opinions for granted (Imania et al. 2022). It involves developing students' ability to analyse information, evaluate arguments and make logical and informed judgements. The critical thinking dimension is an important aspect of the Pancasila student profile as it helps students develop a critical mindset, think independently and make decisions based on evidence and reasoning. (Sesario 2023). On the relevance of Pancasila learner profile in biology learning is to develop and present problems. Students are asked to solve problems encountered during the implementation of biology practicum. From the results of the interviews with the students, it was found that in the implementation of the practicum, the students were asked to analyse and solve problems encountered during the practicum. For example, in the tempeh production practicum, if the tempeh produced fails, students are asked to analyse the cause, then students are asked to repeat the tempeh production until it succeeds.

The sixth dimension in the Pancasila learner profile is creative. The creative dimension in the Pancasila profile has 3 elements, namely (1) generating original ideas; (2) producing original works and actions; and (3) having flexibility in thinking in finding alternative solutions to problems (Kirani, 2023). To develop the creative dimension in biology learning, several strategies are needed, namely: (1) integrating local wisdom by incorporating local ethnicity/culture in biology learning; (2) using learning methods that encourage student creativity, such as project-based learning; (3) encouraging collaborative and active problem solving related to biology (Hannum 2023). The relevance that teachers do is to produce handicrafts from recycled waste which also aims to develop creative ideas for entrepreneurial character. Students who are able to produce these handicrafts are exhibited in front of teachers and other students to motivate students to be creative in order to improve their skills.

Challenges in the Integration of Pancasila Values in the Teaching of Biology

Challenges in integrating Pancasila values in biology learning can include several aspects, such as preparing lesson plans that include objectives, content and materials related to Pancasila values. In addition, challenges may also arise in efforts to strengthen the dimensions of the Pancasila learner profile, such as the dimensions of critical thinking, noble character, mutual cooperation and creativity, through biology learning (At'haya et al. 2023). Implementing Pancasila values in education has a positive impact on the character development of students. The application of Pancasila values in the first commandment, such as "belief in one God", plays an important role in the character development of primary school students (Sopia et al. 2023). The Pancasila Learner Profile, which incorporates Pancasila values into the curriculum, helps to strengthen students' character by instilling habits, promoting discipline, providing guidance and emphasising the application of ethics and Islamic teachings in daily life (Maulida et al. 2023). Schools that have implemented habituation programmes based on the six key characteristics of the Pancasila student profile have seen positive results in shaping students' character (Maghfiroh et al. 2023). By practising the values of Pancasila through various approaches such as inculcation, modelling, facilitation and skill development, students can develop the necessary skills to face future challenges (Afifah and Fadilah 2023). The aim is to develop students with faith, noble character and a strong sense of national identity through the application of Pancasila values in education (Kadir, 2023).

The Pancasila learner profile is still partly implemented by schools due to the lack of socialisation regarding its implementation, so that many schools still use K-13 where there is no Pancasila learner profile in K-13. The results of interviews with students who stated that in school only certain classes had implemented the independent curriculum. However, the school has a culture so that the Pancasila learner profile is realised, namely by implementing a culture of literacy on Tuesdays, where students are given the opportunity to read for 10 minutes and share the reading material in front of other students. The school has also made it a habit to shake hands with teachers before entering the classroom. The teacher on duty stands in front of the school gate and the students greet the teacher. On Friday, schools carry out greening activities by planting trees or flowers, cleaning the school environment, and there are schools that carry out gymnastic activities to form health care characters. On Saturday, schools do cultural performance activities by students or display the results of handicrafts made by students.

Challenges in integrating Pancasila values in biology education include the marginalisation and decline of Pancasila knowledge and practice among students (Adillah 2022; Wulandari and Raharja 2022). The emergence of negative behaviours and moral decay in society adds to this challenge (Afifah and Fadilah 2023). In addition, the Covid-19 pandemic and the shift to online learning have created obstacles in teaching and learning activities, affecting the coherence and cohesion of education. By applying the values of Pancasila through practice, habituation, role modelling and environmental conditioning, students can develop the skills and attitudes needed to face future problems. Some efforts that can be made to address these challenges include the integration of local wisdom, the use of creative learning methods, active collaboration, teacher skill development, and the use of technology in biology learning. To engage students in extracurricular biology activities, it is important to provide active learning experiences

that involve students in hands-on learning activities (Markova et al. 2020). This can be achieved by incorporating hands-on laboratory activities that allow students to apply theoretical concepts in a practical setting. In addition, providing opportunities for educational trips, internships, skills development and research involvement can further enhance student engagement and motivation (Parker and Morris 2016). The creation of a psychologically comfortable climate and the setting of problematic creative tasks can also contribute to the activation of cognitive activity and the development of independence in students (Kuit and Fildes 2014). In addition, modifying curriculum and assessment methods to include group work, inquiry-based learning, and self-directed and peer-assisted learning can increase student engagement and interest in lifelong learning in biology (Rogovchenko 2021).

Factors that support the application of Pancasila values in biology teaching include the integration of learning process activities in all subjects, the internalisation of Pancasila values as a form of local wisdom, and the use of school culture to promote unity and cooperation among students (Septiani and Kurniawan 2022). The role of teachers is crucial in shaping the character of students by providing guidance, promoting tolerance, strengthening discipline and fostering love of country (Setiyaningsih and Wiryanto 2022). In addition, the curriculum and education system play an important role in promoting the values of Pancasila, with the Merdeka Curriculum aimed at liberating students and educators to improve the quality of education in Indonesia (Lukitoyo et al. 2023). The learning environment and family harmony also have a positive influence on the practice of Pancasila values and contribute to the development of students' character (Sukarman 2023).

CONCLUSION

The Pancasila Learner Profile has 6 dimensions, namely (1) Faithful, Dedicated to God Almighty and Noble; (2) Global Diversity; (3) Gotong Royong; (4) Independent; (5) Critical Thinking; and (6) Creative. These six dimensions are relevant to the teaching of biology as implemented by teachers and schools to realise the Pancasila Student Profile. Teachers involve students actively, collaboratively and independently in the biology learning process. Students are accustomed to praying before and after learning as a form of gratitude to themselves, students are invited to actively practice and discuss related problems, and students are also asked to solve problems found during practice. The school culture also supports the realisation of the Pancasila learner profile through literacy activities, handicrafts and environmental cleanliness. The challenge experienced by teachers in implementing the Pancasila learner profile is the decline in students' knowledge and moral degradation regarding Pancasila, so teachers need to have learning strategies such as problem-based so that students can more easily understand the values of Pancasila in biology learning.

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How To Cite This Article, with *APA style* :

Chastanti, I., Rofieq, A., Huda, A.M., Eriyanti, R.W., & Hasruddin, H. (2024). An Analysis of the Relevance of the Pancasila Learner Profile in the Learning of Biology. *Jurnal Pembelajaran dan Biologi Nukleus*, 10(1), 170-180. https://doi.org/10.36987/jpbn.v10i1.5328

Conflict of interest : The authors declare that they have no conflicts of interest.

Author contributions : All authors contributed to the study's conception and design. Material preparation, data collection and analysis were performed by all authors. The first draft of the manuscript was submited by [**Ainur Rofieq**]. All authors contributed on previous version and revisions process of the manuscript. All authors read and approved the final manuscript.