
Pancasila Student Profiles in Science Lessons and Potential for Strengthening by Developing PjBL-Based E-Modules

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Abstract

This study aims to find out class VII students' profiles of Pancasila abilities of MTs SA Miftahul Huda Bumijawa. The dimensions of the meticulous Pancasila student profiles include four dimensions, namely critical reasoning, creativity, mutual cooperation, and independence. This type of research is a qualitative descriptive. Data collection instrument were observation and interview guidelines. Based on research data, the results showed that the ability of students to the Pancasila student profiles were still very low. 70% of students were in category of very low and another 30% were in category of low on the critical reasoning dimension. 57% of the students were in category of very low and another 43% were in category of low on the independent dimension. Overall students where in category of very low on the dimensions creative and mutual cooperation dimensions. It indicates that the applied learning media and learning models have not been able to strengthen Pancasila student profiles. The Integrated Science learning process still uses conventional methods and rarely does practicum or projects. The media used is still limited to textual. One of the potential solutions in order to strengthen the Pancasila student profiles are to develop an e-module based PjBL.

INTRODUCTION

Based on the Constitution article 3 No. 20 of 2003, it is stated that the purpose of national education is to develop the potential of students to become human beings who have faith and mindful to God almighty, have noble character, healthy, have knowledge, capable, creative, independent, and become citizens who uphold the principles of democracy and have a sense of responsibility. Therefore, the government strives to always transform the education sector by adjusting the determination of the globalization era so that the quality of education in Indonesia is better. However in its implementation there are still many obstacles faced, one of which is the Covid-19 pandemic which not only has an impact on the economic sector and social order, but also has a great impact on the education sector.

The pandemic seemed to be a catalyst for the transition of the industrial revolution 4.0 to the era of society 5.0. The era of super smart society (society 5.0) was introduced by Japan in 2019 which was raised in anticipation of the turmoil of distrust in the 4.0 era. Era Society 5.0 is a process of collaboration between humans as the center (human-centered) and technology as the basis (technology based). Education era 5.0 is an educational process that focuses on human development as a creature that has reason, knowledge and ethics supported by the development of modern technology today.

The Era of Society 5.0 in the world of education emphasizes character, moral, and transparency education. This is because the knowledge possessed can be replaced by technology while the application of soft skills and hard skills owned by each learner cannot be replaced by technology. The Indonesian government has formulated soft skills in order to face the era of society 5.0 and to achieve the educational goals realized in the concept of Pancasila student profiles. This is stated in Ministerial Decree No. 1177/M/2020, mentioning that the purpose of the curriculum is to strengthen proficiency and personality with the Pancasila student profiles.

Pancasila student profiles are a lifelong students who have global competence and behaves according to Pancasila values. The formulation of Pancasila student profiles were made with the aim of being a compass for Indonesian educators and students. All learning, programs, and activities in the education unit aim to end up with the Pancasila student profiles (Kemendikbud, 2021). Pancasila student profiles contain six dimensions that complement each other, namely 1) faith, mindful of God almighty, noble character, 2) global diversity, 3) cooperating, 4) creative, 5) critical reasoning, and 6) independent.

Based on the six dimensions of Pancasila student profiles, the dimensions that can be directly achieved during the natural sciences learning process are critical reason, creative, independent and cooperative, as for the dimension of faith, mindful of God Almighty, noble character and global diversity are achievement that can indirectly be achieved (Puspaningsih *et al.*, 2021). Research in a smaller scope regarding the abilities of Pancasila student profiles need to be done. This is the basis for further research to find or introduce media or learning models that have the potential to improve the quality of education, especially in strengthening the Pancasila student profiles. This research aims to describe the abilities of Pancasila student profiles at MTs SA Miftahul Huda Bumijawa.

METHODS

This study uses a qualitative descriptive method by observations and interviews. Observations were made to determine the initial abilities of Pancasila student profiles and interviews were conducted to determine the integrated science learning tools and processes. The research was conducted during the natural science teaching and learning activities for the 2021/2022 academic year in May-April 2022. The subject of the study was from VII B MTs SA Miftahul Huda Bumijawa students of 23 learners. The observation sheet instrument for the initial abilities of Pancasila student profiles include the dimensions of critical, creative, mutual cooperation, and independent reasoning using an instrument developed by Hardanie *et al.* (2021). The data obtained was then analyzed descriptively.

RESULTS AND DISCUSSIONS

Process of Natural Sciences Learning

This study includes the process of learning natural science and the initial abilities of Pancasila student profiles. Based on the results of research that has been conducted at MTs SA Miftahul Huda Bumijawa through interviews and observations, it was found that the natural sciences learning process is still carried out the limited face-to-face class based on Circular Letter No. 4 of 2021 concerning the Implementation of limited face-to-face learning to the academic year 2021/2022 issued by the Directorate General of Higher Education, Research, and Technology. The method of natural science learning carried out is still with conventional methods and the media used is still textual only. This is due to the limitations of teachers in providing teaching materials or learning media, so that the learning process more often uses text books that are only available in libraries and students worksheet modules owned by students. This makes the natural science learning process seem monotonous, less

interesting, and makes students passive. In addition, limited time to face to face and the use of media that does not support the learning process will cause the natural science learning process to be ineffective. Based on these problems, there needs the development of media educations which interesting, interactive, and be able to easily accessed students in school and at home so that the learning process will be more effective. One of the media that can be developed is the learning module in the form of electronic (e-module).

E-module can help teacher to facilitate student in learning process. E-module has an important role in the learning process that can help teachers explain the subject learning (Asrial *et al.*, 2020). The advantages of e-module is more interactive than other print media or text book. E-modules packaged in digital form can be read through a personal computer or smartphone. The e-module also features facilities such as learning videos, animations, images, and audio. Sugihartini & Laba (2017) also staid that the e-module is interactive making it easy to navigate that can display images, text, and videos that are equipped with tests and provide feedback automatically.

Research about the innovation of e-modul teaching materials has been carried out by several researchers, including Kimianti & Prasetyo (2019) and Aryawan *et al.* (2018). In a study conducted by

Kimianti & Prasetyo (2019) stated that e-module can improve student learning outcomes so that they are suitable for use to support the learning process. Aryawan *et al.* (2018) stated that interactive e-module can be used to improve student learning outcomes significantly. Based on this, it can be concluded that the E-module can improve student learning outcomes so it is highly recommended to be developed.

The Initial Abilities of Pancasila Student Profiles

Based on the results of observations, it was also obtained that natural science learning has not been able to bring up the four dimensions of Pancasila student profiles. The critical reasoning dimension consists of three elements: the element of acquiring, also processing information and ideas, analyzing and evaluating reasoning and procedure, and reflection of thoughts and thought process. The aspects assessed based on the three elements include four aspects, namely (1) asking questions, (2) identifying, clarifying and processing information and ideas, (3) proving reasoning with various arguments in making a conclusion or decision, and aspect (4) reflecting and evaluating their own thoughts. The results of observation of the initial abilities of Pancasila student profiles of critically reasoning dimension can be seen in Table 1.

Table 1. Designing students' initial abilities at critical reasoning dimension.

Score Interval	Category	Percentage of students
13 < score ≤ 16	Very high	0%
10 < score ≤ 13	High	0%
7 < score ≤ 10	Low	30%
4 < score ≤ 7	Very low	70%

The creative dimension consists of three elements, namely original ideas, original works and actions, and flexibility of thinking. The aspects assessed based on the three elements include three aspects, namely (1) produce original ideas, (2)

produce original works and actions, and (3) have flexibility to think in finding the alternative solutions problems. The results of observation of the initial abilities of Pancasila student profiles of creative dimension can be seen in Table 2.

Table 2. Designing students' initial abilities on the creative dimension.

Score Interval	Category	Percentage of students
10 < score ≤ 12	Very high	0%
8 < score ≤ 10	High	0%
6 < score ≤ 8	Low	0%
4 < score ≤ 6	Very low	100%

Elements in the dimension of mutual assistance (gotong royong) consist of three elements, namely collaborating, caring, and sharing. The aspects assessed based on the three elements include seven aspects, namely (1) cooperation, (2) communication to achieve common goals, (3)

positive interdependence, (4) social coordination, (5) responsiveness to the social environment, (6) social perception, and sharing something with others in need. There are observations of the initial abilities of Pancasila student profiles of mutual assistance dimension can be seen in Table 3.

Table 3. Designing students' initial abilities in the dimension of mutual assistance.

Score Interval	Category	Percentage of students
22 < score ≤ 28	Very high	0%
16 < score ≤ 22	High	0%
10 < score ≤ 16	Low	0%
4 < score ≤ 10	Very low	100%

The independent dimension consists of two elements, namely self-understanding and self regulation of the situation. The aspects assessed in the independent dimension based on these two elements include seven aspects, namely (1) recognizing the quality and self-interest and challenges faced, (2) developing self-recollection, (3) emotional regulation, (4) setting learning goals,

achievements, and self-development and strategic plans to achieve them, (5) showing initiative and working independently, (6) developing discipline and selfcontrol, and (7) confident, resilient, and adaptive. The results of observation of the initial abilities of the Pancasila student profiles of independent dimension can be seen in Table 4.

Table 4. Designing students' initial abilities on a self-contained dimension.

Score Interval	Category	Percentage of students
22 < score ≤ 28	Very high	0%
16 < score ≤ 22	High	0%
10 < score ≤ 16	Low	43%
4 < score ≤ 10	Very low	57%

Based on the observation results in Table 1, Table 2, Table 3, and Table 4 of 23 learners during the natural science learning process in class VII B, it was found that 70% of students entered the very low category in the critical reasoning dimension and the other 30% entered the low category, while the average score of all students in the critical reasoning dimension was 6.73 with a minimum score of 4 and a maximum of 16, so that the average ability in the critical reason dimension is included in the very low category. In the creative dimension, the average score of learners is 4.91 with a minimum score of 4 and a maximum score of 12, so it include in the very low category. In the mutual assistance dimension, the average score of students is 7.52 with a minimum score of 7 and a maximum score of 28, so it is included in the very low category. In the independent dimension, it was obtained that 57% of students were in the very low category and 43% other students were in the Low category, while the average score of all students in the independent dimension is 10 with a minimum score of 7 and a maximum of 28, so that the average ability in the independent dimension is in the very low category.

Based on the results of these observations, it can be concluded that the abilities of Pancasila student profiles include critical reasoning dimension, creative, mutual assistance, and independent learners in natural science learning is still very low. So in order to strengthen the four dimensions of Pancasila student profiles, then there needs to integrated e-module of learning models

namely critical reasoning, independen. One of the learning models that can be used is with project-based learning that can develop soft skills and build the character of Pancasila student profiles in students (Faiz *et al.*, 2022).

Project Based Learning to Strengthen Pancasila Student Profiles

Project based learning (PjBL) is a learning model that emphasizes on a project or activity as the core of learning. According to Ayaz & Söylemez (2015), project based learning is more effective than traditional or conventional learning approaches with lecture methods in science education. In natural science class that uses project based learning model, students be able to explore phenomenas, investigate questions, discuss their ideas, engage in scientific practice, prove other people's ideas, try new ideas, build and revise models (Krajcik & Shin, 2014).

Project based learning or can be abbreviated as PjBL is an innovative learning model centered on students (student centered) with teachers as facilitators, so as to make students more active during the learning process and can strengthen the four dimensions of Pancasila student profiles in natural science learning, which includes critical reasoning dimension, creative, independent, and mutual assistance dimension. This is in line with research conducted by Zhao & Wang (2022) through qualitative analysis found that in PjBL,

students show more critical reasoning competencies, learning motivation, mutual assistance, the use of scientific practices, problem solving, creativity, environmental awareness, and perseverance in self study.

Research that shows that the PjBL model can strengthen the critical reasoning ability of students has been conducted by Sularmi *et al.* (2018) which shows that during learning process with the PjBL model, students experience an increased role (active) in the learning process, and the motivation is also increased, so that it has a significant influence in improving students' critical thinking skills. This is in line with research by Seibert (2021) which examined the critical thinking skills of Generation Z students during the natural science learning process, and it was found that the learning process with the PjBL model can bring up critical thinking indicators and elements of thinking involved with critical thinking.

Research that shows that learning using the PjBL model can also make students more confident and creative thinking skills develop better (Tasiwan, 2015) Based on research by Wulandari *et al.* (2019), it was found that project based learning is more effective in improving student creativity compared to conventional learning models. This is in line with Fajrina *et al.* (2018) research which in the pjbl learning process will involve students in real experiences or simulations and make students more independent, so as to improve their creative thinking skills. Based on this, the project-based learning model can also increase the independence of students.

In project based learning, a teacher often act simultaneously as designer, facilitator and manager, so that students can become independent learners (Pan *et al.*, 2020). This is in line with Hudáková & Papcunová (2019) which states that PjBL's main focus is on the activities and independent work of students, who gradually switch from passive methods (acquire knowledge) to more active methods (obtain information and become implementers) so as to increase the learning independence of students.

In addition to strengthening the three dimensions of the Pancasila student profiles (critical reasoning, creative, and independent), the PjBL model can also strengthen the dimension of mutual assistance of students. Based on research by Lee *et al.* (2015), project based learning has been shown to develop students' social skills, strengthen group collaboration and improve students' interpersonal skills. This is in line with Markula *et al.* (2022) which states that the main characteristics of PjBL that are most often displayed are collaboration in the form of cooperation either between students, between teachers or with outside partners, and every collaboration interaction is considered a form of mutual assistance.

CONCLUSIONS AND SUGGESTIONS

This research shows that the natural science learning process carried out is still using conventional methods, namely lectures and question & answer, while the media used is still limited to textual. The initial ability of students to the Pancasila student profiles are still very low, it is found that 70% of students entered the very low category in the critical reasoning dimension and the other 30% entered the low category. In the independent dimension, it was found that 57% of students entered the very low category and the other 43% entered the low category. As for the creative dimension and the dimension of mutual assistance, all students entered the very low category. According to the previous research, it was found that the one of solutions to increase the Pancasila student profiles in the dimensions of critical reasoning, independent, creative, and mutual assistance dimension are to use learning media in the form of PjBL based e-modules.

Based on the conclusions, this research can be followed up by research on the development of e-modules based on PjBL in natural science learning subjects to strengthen the Pancasila student profiles.

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