



Conference Paper

Teacher's Perspective on STEAM Life Skills-Based Learning as a Means of Strengthening Pancasila Student Profiles

Fenny Roshayanti^{1*}, Veryliana Purnamasari², Arfilia Wijayanti²

¹Master of Education IPA, Postgraduate, PGRI University Semarang,50125, Indonesia ²PGSD, Faculty of Education, PGRI University Semarang, 50125, Indonesia

ORCID ID

Fenny Roshavanti: https://orcid.org/0000-0001-9056-267X

Abstract.

The STEAM approach contains life skills that support the development of project-based learning, which strengthens the profile of Pancasila students, so it is hoped teachers can implement STEAM life skills-based learning. This research aims to learn the perspective of teachers on STEAM life skills-based learning. The subjects of this study are 125 teachers from Central Java. The data collection technique used was a questionnaire, with data analysis carried out using the Milles and Huberman (2007) model. The results showed that 32.1% of teachers stated "strongly agree"," and 42.9% of teachers stated "agree" when asked if they had heard of the STEAM approach; only 4% of teachers stated, "strongly disagree." This shows that most teachers have heard about STEAM and have a fairly high level of understanding of the benefits of STEAM life skills-based classroom learning.

Keywords: STEAM-based learning, life skills, Pancasila Student Profile

Corresponding Author: Fenny Roshayanti; email: verylianapurnamasari@gmail.com

Published 21 December 2022

Publishing services provided by Knowledge E

© Fenny Roshayanti et al. This article is distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICESRE Conference Committee.

1. Introduction

STEAM-life skills-based learning is a new innovation in the application of learning activities in the 2013 Curriculum and the Independent Curriculum (1). The STEAM approach containing life skills supports the development of project-based learning to strengthen the profile of Pancasila students, so it is hoped that the appropriate teacher's perspective can support the implementation of STEAM-life skills-based learning. In STEAM learning, students are asked to develop knowledge related to science, technology skills, engineering, art development skills and abilities in mathematics (2). These abilities are outlined in a project in a sub-theme of learning in class.

This research aims to see the teacher's perspective on STEAM-life skills-based learning as a means of strengthening the profile of Pancasila students. Profile of Pancasila students as part of the realization of Indonesian students who have global competence

○ OPEN ACCESS



and behave in accordance with the values of Pancasila. The six main characteristics of the Pancasila student profile are such as having faith that fears God Almighty, having a noble character, having an attitude that supports global diversity, working together, having strong independence, having critical thinking skills, and having high creativity(3). In the 'Merdeka curriculum', the implementation of strengthening the profile of Pancasila students becomes a priority character, so that students not only have high knowledge but also have a good attitude.

The profile of Pancasila students relatesto student life skills in Elementary School. The life skills in this study consisted of two types, namely generic life skills and special life skills. Generic life skills consisted of personal skills and social skills. Specific life skills are skills to deal with a particular job or situation. Skills to deal with certain jobs or situations consist of academic and vocational skills(4). The developed life skills will be applied in classroom learning in the form of projects. From the explanation of these reasons, the researchers conducted 'teacher's perspective on steam-life skills-based learning as a means of strengthening Pancasila student profiles'.

2. Method

The object of research is teachers in Central Java with 125 respondents. The data collection technique used a questionnaire distributed to teachers in Central Java in a google form format, while the data analysis used the Milles and Huberman model. Data analysis techniques can be seen in Figure 1.

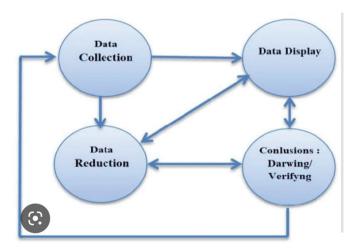


Figure 1: Analysis with Milles and Huberman Method.

DOI 10.18502/kss.v7i19.12468 Page 486



3. Result and Discussion

3.1. Presenting the Results

IndicatorAspect 5

3.6

Materials of STEAM STS TS RR S SS 10.7 10.7 42.9 **Indicator Aspect 1** 32.1 14.3 39.3 32.1 10,7 IndicatorAspect 2 3.6 IndicatorAspect 3 7.1 46.4 32.1 10.7 3.6 IndicatorAspect 4 3.6 14.3 42.9 39.3 0

39.3

32.1

14.3

10.7

TABLE 1: Teachers' Perspective of the STEAM Approach.

The teacher's perspective on the STEAM approach is explained in 5 indicator aspects, namely: 1) the first indicator aspect, having heard of the STEAM approach, 2) the second indicator aspect, the STEAM approach is widely available in the mass media, but the teacher does not know what STEAM is, 3) the third indicator aspect, the STEAM approach is very easy to apply as a new approach, 4) the fourth indicator aspect, teachers have started to apply the STEAM approach but have difficulty in implementing it, 5) the fifth indicator aspect, the STEAM approach facilitates learning activities.

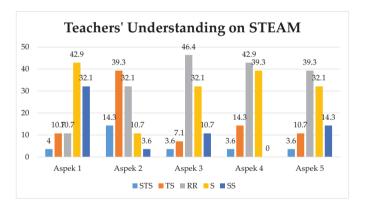


Figure 2: Diagram of Teachers' Perspective of the STEAM Approach.

The picture above shows that there are 5 aspect indicators contained in the statement regarding aspects of teachers' understanding of the STEAM approach. In the first aspect indicator, as many as 32.1% of teachers stated strongly agree and 42.9% of teachers stated that they agreed that they had heard of the STEAM approach, only 4% of teachers stated that they strongly disagreed. This shows that more teachers have heard of STEAM. Then on the second aspect indicator, 39.3% of teachers disagree and 14.3% strongly disagree with the negative statement which states that the STEAM approach is widely available in the mass media, but teachers do not know what STEAM is, thus showing consistency in the statement previously. While the indicators for the third, fourth

DOI 10.18502/kss.v7i19.12468 Page 487



and fifth aspects include the STEAM approach which is very easy to apply as a new approach, teachers have started to apply the STEAM approach but have encountered difficulties in its application, and the STEAM approach facilitates learning activities, indicating that the majority of teachers are still hesitant in implementing STEAM learning. in the classroom, so it is still necessary to assist elementary school teachers in the implementation of STEAM learning.

3.2. Create a Discussion

The picture above shows 5 aspect indicators contained in the statement regarding aspects of teachers' understanding of the STEAM approach. In the first aspect indicator, as many as 32.1% of teachers stated strongly agree and 42.9% of teachers stated that they agreed that they had heard of the STEAM approach, only 4% of teachers stated that they strongly disagreed. This shows that more teachers have heard of STEAM. Then on the second aspect indicator, 39.3% of teachers disagree, and 14.3% strongly disagree with the negative statement, which states that the STEAM approach is widely available in the mass media. Still, teachers do not know what STEAM is, thus showing consistency in the statementpreviously. While the indicators for the third, fourth and fifth aspects include the STEAM approach which is very easy to apply as a new approach, teachers have started to apply the STEAM approach. Still, they have encountered difficulties in its application, and the STEAM approach facilitates learning activities, indicating that the majority of teachers are still hesitant to implement STEAM learning(5). In the classroom, so it is still necessary to assist elementary school teachers in the implementation of STEAM learning. Teachers have started applying the STEAM approach but encounter difficulties in its implementation, and the STEAM approach makes learning activities easier. The majority of teachers are still hesitant to implement STEAM learning in the classroom, so it is still necessary to provide assistance for elementary school teachers in the implementation of learning STEAM (6).

In this study, a STEAM model based on life skills was developed to support the strengthening of the profile of Pancasila students (7). Profile of Pancasila students as part of the realization of Indonesian students who have global competence and behave by the values of Pancasila. The six main characteristics of the Pancasila student profile are such as having faith that fears God Almighty, having noble character, having an attitude that supports global diversity, working together, having strong independence, having critical thinking skills, and having high creativity. In the 'Merdeka curriculum', the implementation of strengthening the profile of Pancasila students becomes a priority

DOI 10.18502/kss.v7i19.12468



character, so that students not only have high knowledge, but also have a good attitude. The six characteristics of the Pancasila student profile can be seen from the image below:



Figure 3: Diagram Pancasila Student Profile.

The profile of Pancasila studentsrelate with student life skils in Elementary School. Life skills in this study consisted of two types, namely generic life skills, and special life skills. Generic life skills in this study consisted of personal skills and social skills. Specific life skills are skills to deal with a particular job or situation. Skills to deal with specific jobs or situations consist of academic and vocational skills(8). The developed life skills will be applied in classroom learning through projects.

4. Conclusion

It can be concluded that the teacher does not fully understandthe implementation of learning using the STEAM approach even though the implementation of learning has given the project as one of the forms of implementation of the STEAM approach. It can be concluded that the teacher does not fully understandthe related to the implementation of learning using the STEAM approach even though the implementation of learning has been given the project as one of the forms of implementation of the STEAM approach. All projects that the teacher has given tostudents have the potential to STEAM, thus supporting the readiness of teachers to implement STEAM in learning. In this study, a STEAM model based on life skills was developed to support the strengthening of the profile of Pancasila students.

Acknowledgments

Thank you to DRPM as a source of research funding and to PGRI University Semarang for the opportunity that has been given to carry out this research. Thank you to the

DOI 10.18502/kss.v7i19.12468 Page 489



students who have assisted in the data collection process, the research team who have assisted in the data analysis process, and LPPM Universitas PGRI Semarang, who have assisted in the research administration process.

References

- [1] Monkeviciene O, Autukeviciene B, Kaminskiene L, Monkevicius J. Impact of innovative STEAM education practices on teacher professional development and 3-6 year old children's competence development. Journal of Social Studies Education Research. 2020;11:1–27.
- [2] Riyanti ED, Roshayati F, Purnamasari V. The profile of elementary teachers' understanding in STEAM (Science, Technology, Engineering, Art, and Mathematics) Approach. Jurnal Ilmiah Sekolah Dasar. 2021;4:678–689.
- [3] Apriliana MR, Ridwan A, Hadinugrahaningsih T, Rahmawati Y. Pengembangan Soft Skills Peserta Didik melalui Integrasi Pendekatan Science, Technology, Engineering, Arts, and Mathematics (STEAM) dalam Pembelajaran Asam Basa. JRPK: Jurnal Riset Pendidikan Kimia. 2018;8:42–51.
- [4] Fomunyam KG. Machine learning and stem education: Challenges and possibilities. International Journal of Difference Equations (IJDE). 2022;17:165–176.
- [5] Sari PN, Ekayanti A. Penerapan model pembelajaran steam (science, technology, engineering, art, and math) untuk penguatan literasi-numerasi siswa. Jurnal Abdimas Indonesia. 2021;1:89–96.
- [6] Duban N, Aydoğdu B, Kolsuz S. STEAM implementations for elementary school students in Turkey. Journal of STEM Arts, Crafts, and Constructions. 2018;3:5.
- [7] Chemerys H, Ponomarenko O, Kardashov V, Briantsev O. STEAM project-based learning for future designers. AIP Conference Proceedings. 2022;2453:030026.
- [8] Sartika SB, Efendi N, Wulandari FE. Relationship of students' activities, responses, and cognitive learning outcomes on natural science learning-based ethno-STEM in secondary school. Prisma Sains: Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA IKIP Mataram. 2022;10:84–92.

DOI 10.18502/kss.v7i19.12468