

Training Learning Model PjBL Based on Science Practicum Tools at the Attohiriyah Alfadiliyah Islamic Boarding School, Bodak, Central Lombok

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Abstract: Community service activities are one of the lecturer's obligations as stated in the tridharma of higher education. The community partner chosen by this service team is the Attohiriyah Bodak High School teacher. This activity is carried out in three stages, namely preparation, implementation and evaluation. The preparation stage was carried out to observe the problems faced by teachers at Attohiriyah Bodak High School, especially the problem of implementing learning and identifying the most effective problem solutions for solving problems. The problem that is resolved is the problem of less varied learning by providing training to teachers to carry out learning using the PjBL model. In the implementation phase, direct training was carried out in the application of the teaching aids-based PjBL learning model. The final stage carried out is the evaluation stage which aims to reflect on the service activities that have been carried out. This evaluation stage is in the form of the teacher's response after the service activity has been carried out, namely that the teacher is very enthusiastic about participating in this activity from start to finish.

Keywords: Learning Model; PjBL; Science Practicum Tools

Introduction

Facing very fast global technological developments, it is very necessary for all Indonesian citizens to improve the quality of human resources so that they can become a society that is responsive to technological developments (Andriani, 2022; Fauzi et al., 2023). Universities that are considered important by society must be responsive to actual strategic issues that are currently developing. The role of lecturers is very broad in dealing with technological developments, not only being capable in the field of learning on campus, but also having to contribute and pass on their abilities to partners, namely teachers at schools (Fadjarajani et al., 2021), both at primary and secondary levels in order to support higher education tri dharma activities. The quality of education in Indonesia experiences ups and

downs. The development of the quality of education in Indonesia is still categorized as low, both at the world level and at the Southeast Asia level, even though efforts have been made by both the central government and the private sector to improve the quality of education.

Learning activities at school are routine activities that are carried out every day. Learning activities at school are facilitated by teachers who are expected to carry out learning smoothly. The fact that often happens in class is that students are often less enthusiastic about following lessons. This problem can be solved by carrying out learning by applying innovative learning models.

Innovative learning models are very diverse, one of which is the Project Based Learning (PjBL) model. The PjBL model is very relevant to be applied in learning in the current era because the PjBL model has characteristics that are very in line with

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the independent curriculum which is oriented towards providing a sense of independent learning for students (Kainama et al., 2023; Lestari et al., 2023; Purwanto et al., 2021; Putri, 2023). The PjBL model is very suitable to be applied because the PjBL model has systematic stages that are very supportive of growing the profile of Pancasila students (Lubis et al., 2022; Wahyuni, 2023).

Each stage of PjBL model learning provides opportunities for students to be more active in learning so that learning is student-centered (Anggraini & Wulandari, 2021; Pradita et al., 2015). The PjBL model can help students to foster a spirit of mutual cooperation in study groups.

Method

Following up on the limitations and difficulties experienced by teachers at Attohiriyah Bodak High School, Central Lombok. Learning problems faced by teachers must be resolved so that learning runs as expected.

The aim of this activity is to improve the teacher's ability to carry out learning with an innovative learning model, namely the PjBL model. Related to this, the strategic and appropriate target audience to be involved in this activity is the MIPA specialization teachers at Attohiriyah High School, Central Lombok.

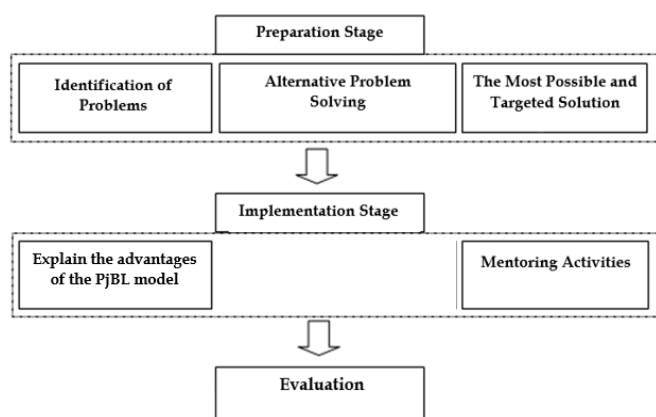


Figure 1. Stages of implementing PjBL model learning training at Attohiriyah Bodak High School

There are two aspects evaluated in this activity, namely the participants' activities during the activity and the follow-up to the implementation of the PjBL model to students. Participant activity during the training was measured by the percentage of participant activity and follow-up implementation of the PjBL learning model in class.

Result and Discussion

Community service activities are one part of the tri dharma of higher education, so lecturers are obliged to carry them out every year. In 2023, we, from the team of lecturers serving the Master of Science Education study program, will carry out service to the school community, namely Attohiriyah Bodak High School, which is located in Central Lombok Regency. This service activity is carried out through several stages, namely the preparation stage, implementation stage and evaluation stage.

Preparation phase

In the preparation stage, the service team observed the needs of the community, especially Attohiriyah Bodak High School. Observation results show that teachers still implement very little innovative learning. Based on this, the service team provides training on implementing the PjBL learning model. The service team chose the PjBL learning model because the PjBL model is very relevant to the curriculum implemented at Attohiriyah Bodak High School, namely the independent curriculum (Fahlevi, 2022; Rizkianida et al., 2023).

Implementation Stage

The implementation stage is the core stage of this service activity. At this stage, the teaching team provides important insight into implementing learning with a learning model that can help students play an active role in learning. The learning model introduced is the PjBL learning model. During the activity, the training participants were very enthusiastic about following and paying attention to the presentation of the material presented by the service team. These activities are as seen in Figure 2.



Figure 2. Enthusiastic training participants implementing the PjBL model

The Project Based Learning model has many advantages. namely making students motivated to learn in making projects, making students creative

and innovative in learning and problem solving, increasing collaboration between students so as to generate a spirit of mutual cooperation, fostering scientific attitudes such as honesty, thoroughness, responsibility and creativity (Farihatun & Rusdarti, 2019). Apart from that, the Project Based Learning model is a learning model that is very popular with students in an effort to improve the quality of learning, as well as providing valuable experience for students in gaining knowledge.

The stages of the PjBL learning model are very easy to apply in learning because the stages are very systematic, these stages start from problem orientation, product design, schedule preparation, monitoring, testing and assessing projects, and evaluation (Kusumaningrum & Djukri, 2016).

The material regarding the insight into the PjBL model really attracted teachers' interest so that the teachers were very focused and enthusiastic in listening to the presentation of the material as in Figure 3.



Figure 3. Presentation of material by the service team

Evaluation Stage

The evaluation stage consists of participant responses and follow-up on the implementation of the PjBL model in the classroom. After the activity after taking part in the training in implementing the teaching aids-based PjBL learning model. All participants responded positively to the presentation of the material presented. Follow-up was carried out by one of the teachers, namely a physics teacher who had successfully implemented the PjBL learning model as in Figure 4.

After implementing learning using the PjBL model, students gave positive responses and were very enthusiastic about participating in the learning. The teacher succeeded in implementing PjBL learning smoothly and followed the syntax systematically in the fluid material. In this activity, students are trained to design the project that will be made and prepare a project work schedule carefully according to the time determined by the teacher. The evaluation results show that the

students are very enthusiastic and can produce work in the form of a hydraulic jack.



Figure 4. The follow-up to the implementation of the PjBL learning model produced a hydraulic jack

Conclusion

Service activities at the Attohiriyah Bodak High School, Central Lombok, went smoothly. Implementing this activity is very useful for teachers to realize innovative learning in the classroom. The success of this activity can be seen from the teacher's follow-up in implementing the PjBL model in the classroom.

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