

# Classroom Action Research Training and Assistance for Science Teachers at Attohiriyah High School, Bodak, Central Lombok

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**Abstract:** Community service carried out by the service team chose schools as targets for implementing activities. School selection is carried out through initial observations to find out the problems and appropriate solutions. This service activity takes the form of training in preparing Classroom Action Research (CAR). The activities carried out were not only limited to training, but the service team also provided assistance to Attohiriyah Bodak High School teachers, especially natural science subject teachers, namely physics, chemistry and biology teachers. The benchmark for the success of this activity is the participant's response and the follow-up provided after the training. Responses from teachers participating in training and mentoring. Most of them gave positive responses and stated that this activity was very useful for teachers in carrying out or creating scientific work

**Keywords:** Class Action Research; Science Teacher; Training

## Introduction

Schools are an environment as a forum for preparing future generations (Naziyah et al., 2021). In reality, there are many problems faced by teachers, both problems outside the classroom and problems in the classroom (Aswita, 2017). Problems, especially in the learning process, are problems that must be handled by a teacher so that these problems can be resolved. The teacher's efforts in solving problems has often been done (Suprihatin, 2015). Various efforts have been made by teachers to solve these problems, but the same problems often recur. The large number of problems that exist, requires teachers to prepare various solutions that suit the problems faced (Nurhuda, 2022; Suhandi & Robi'ah, 2022). So that the same problems that have been resolved do not happen again, as a teacher you must investigate the problems that underlie the emergence of these problems by conducting research or studies (Salim, 2019; Saputra, 2021). The facts that occur in schools

are still teachers' lack of desire to conduct research, this can be seen from the low number of scientific publications owned by teachers.

Research is a concrete first step that starts from a very basic stage, namely analyzing problems that occur factually in the surrounding environment (Rahmat & Mirnawati, 2020). The problems that exist in the classroom are varied problems. One subject teacher and another subject teacher have The problems are not the same, even in the same class, so the solutions to the problems carried out are certainly not the same.

In order for teachers to have motivation and desire to carry out research to solve problems, training and guidance from lecturers who are competent in conducting research is needed. So it can increase teachers' desire to solve problems based on classroom action research carried out at Attohiriyah High School, Central Lombok.

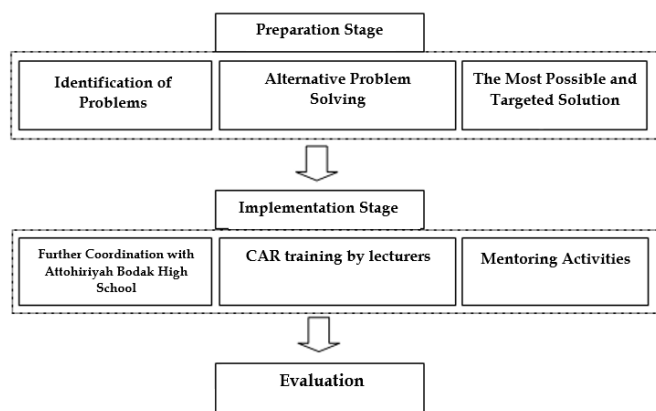
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## Method

Following up on the limitations and difficulties experienced by teachers at Attohiriyah Bodak High School, Central Lombok. This problem must be resolved by the teacher from the most basic problems by conducting classroom action research. The importance of classroom action research in solving problems in the classroom, a problem-solving framework was prepared which was divided into several stages, namely: preparation stage, implementation stage, evaluation stage (Asrori & Rusman, 2020), as shown in Figure 1.

The aim of this activity is to improve teachers' abilities in compiling scientific work, especially in conducting classroom action research and preparing articles from CAR results for publication in journals. Related to this, the strategic and appropriate target audience to be involved in this activity is the Mathematics and Natural Sciences specialization teachers at Attohiriyah High School, Central Lombok.



**Figure 1.** Stages of implementing community service at Attohiriyah Bodak High School

There are 2 aspects evaluated in this activity. Namely participant activities and publication of the resulting articles. Participants' activities during the training. It can be seen from the presence and activities of participants during the activity, including asking, answering questions and discussing. The activity is said to be successful if at least 85% of the targets attend, and at least 85% of the participants who attend participate in the activity in full. Article publication. Success can be seen from the percentage of articles published in journals, namely success if it is classified as complete, that is, an average of 85% of participants have published it.

## 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 physics 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 Stage

In the preparation stage, the service team observed the needs of the community, especially Attohiriyah Bodak High School. The results of observations show that the problems that teachers often face are problems in learning, but teachers rarely identify the causes of these problems. Based on this, the step that a teacher can take is to conduct classroom action research. Classroom Action Research is a very effective effort to solve problems that are often experienced in the classroom, because Classroom Action Research directs teachers to solve learning problems scientifically (Koryati et al., 2019; Nurlina et al., 2022).

### Implementation Stage

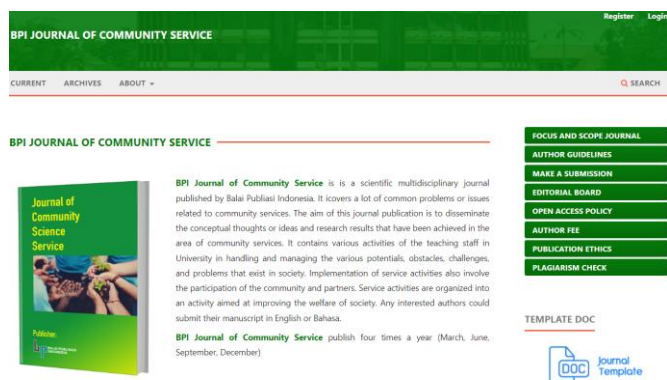
The implementation stage is the core stage of this service activity. This activity was attended by twelve subject teachers at Attohiriyah Bodak High School. This activity was carried out through two sessions, namely a training session and a mentoring session.



**Figure 2.** CAR preparation training activities

In the training session, teachers are given material about the principles of implementing CAR, starting from the observation stage, the stages of preparing learning tools to implement CAR, and assessment instruments (Adianti et al., 2021). Implementation of classroom action research is carried out in a minimum of two cycles. The results of classroom action research can be used as

material for writing scientific articles that can be published in journals.



Authors who publish with this journal, agree to the following terms:

**Figure 3.** Example of a journal destination for publication of Class Action Research Articles

Mentoring activities are carried out to follow up on the theory of CAR implementation. This is important to do because in mentoring activities teachers are directly guided in how to compose scientific articles and how to choose the journal for publication so that the article can be accepted and published. In this activity, the teacher exemplifies a goal journal as in Figure 3.

Training activities and assistance in preparing CAR articles are really needed by a teacher to publish findings during learning. Scientific work in the form of articles that can be published in journals is one of the important things that a teacher must do to develop themselves. Creating scientific work is also one of the demands that teachers must carry out in order to become professional teachers. Therefore, teachers are increasingly motivated to take part in this activity from start to finish. The number of participants who take part is 100% complete.



**Figure 4.** Assistance activities for preparing CAR

### Evaluation Stage

The final stage carried out in this service activity is evaluation. The evaluation results show that this service activity has been implemented up to 85%. This level of achievement is a calculation of

participant responses and follow-up assistance carried out by the service team.

The motivation of training participants is very high when taking part in training, however, in the process of preparing scientific articles, the level of completion is still very low. This is due to the limited time for face-to-face interaction between the accompanying team and the training participants.

## Conclusion

Service activities at the Attohiriyah Bodak High School, Central Lombok, went smoothly. This activity was attended by twelve science subject teachers, namely chemistry, physics and biology. Teachers really felt the assistance in writing CAR scientific papers, as evidenced by the enthusiasm of the participants when taking part in the activity and their attendance rate was 100% from start to finish of the activity.

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