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Study on Effectiveness of Classroom Action Research Workshop to Improve Teacher Research Understanding in Balangan District, South Kalimantan, Indonesia

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Abstract:- Teacher competence is dynamic according to the development of science and technology. The demand for teachers to always be creative and innovative in developing the learning they manage. Government of Indonesia made a policy that aims to improve the competence of teachers in carrying out duties as an educator in school, both competency pedagogy, personality, social, and professional competencies. Problems found in the field that teachers have difficulty doing educational research and making research reports for professional development is due to the lack of teacher understanding of educational research methodologies. Classroom action research workshops are seen as effective in increasing teacher understanding of educational research. The subjects of the study in the implementation of this class action research workshop were junior and senior high school teachers in Balangan District, South Kalimantan Province, Indonesia, totaling 14 teachers. To measure the effectiveness of implementation in increasing teacher understanding of educational research, pre-test and post-test were analyzed and analyzed using n-gain score analysis. Based on the study it can be concluded that the classroom action research workshops given to teachers by the methods of discussion, question and answer, presentations, and assignments are effective in increasing teacher understanding of classroom action research in the medium category.

Keywords:- *Classroom Action Research (CAR), Teacher Competence, Teacher* ***Research C****ompetence.*

I. INTRODUCTION

Teacher competence is not something that is static, but dynamic in accordance with the development of science and technology. This is in line with the demands on teachers to always think creatively and innovatively in developing learning and solving problems in the learning they manage to improve the quality of education and education outcomes[1,2].

The Indonesian government has carried out many activities aimed at increasing teacher competence in carrying out their duties as educators in schools, both pedagogical, personal, social, and professional competencies[2,3,4]. One of them is the enactment of the Regulation of the Minister of State for the Utilization of the State Apparatus and Reform of the Indonesian Republic Bureaucracy[5] No: 16 of 2009 concerning Teacher Functional Positions and Credit Numbers and the Regulation of the Minister of National Education of Indonesia[6] No: 35 of 2010 Concerning Technical Guidelines for the Implementation of the Functional Position of Teachers and Their Credit Numbers. The new rules will take effect on January 1, 2013.

The Regulation of the Minister of National Education of Indonesia No: 35 of 2010 seems to be a policy that can encourage the creation of quality education and quality education outcomes. In the implementation of these rules, the rules of credit numbers and promotion/ class space for teachers are required to develop sustainable profession as an expression of teacher professionalism as educators. Starting with the teacher with the first class of teacher class IIIb until the main teacher class IVd must conduct research or scientific publications for the development of professional competence and as a condition to meet credit scores. As a result of the implementation of the decision in general, teachers began to have difficulty proposing promotion.

Efforts to further enhance the professionalism of teachers in carrying out their duties, the government has also issued a policy of granting certification to every teacher who has met the requirements. The consequence of the certification is that there is an award in the form of an additional salary of one time basic salary which also requires teachers as professionals to have innovative work. Innovative works in the form of educational scientific papers in the form of classroom action research (CAR), Teaching Aids, Modules, Books, or Educational Technology Works.

The results of discussions with several Balangan district teachers in South Kalimantan Province revealed that teachers had difficulty in carrying out research activities and research reports in the field of education, this was due to the lack of teachers' understanding of the classroom action research methodology and analysis of class problems and solution methods. Classroom action research is a research method that can develop the quality of learning, teaching and learning, skills or new approaches, solving problems with direct application to the learning process,

flexible and adaptive, and does not interfere with the learning process at school.

One effort that can be done to help teachers to overcome obstacles in making educational research reports is through workshops classroom action research. Lecturers of the Faculty of Teacher Training and Education, Lambung Mangkurat University jointly collaborate with teachers in Balangan District starting from the identification of learning problems faced by teachers, making action plans to address student learning problems, implementing actions to evaluating and reflecting on shortcomings that exist during the implementation of learning, to reporting and writing scientific articles.

II. METHOD

To assess the effectiveness of classroom action research workshops to improve teacher research competencies, pre-test and post-test were carried out using O_1 X O_2 pre-experimental design; where O_1 is a test score before a class action research workshop, X is an action in the form of a class action research workshop, and O_2 is a test score after a class action research workshop.

Subjects in the classroom action research workshop were 14 teachers at junior and senior high schools in Balangan District, South Kalimantan, Indonesia. The test is given in multiple choice with four answer choices with question indicators (1) basic concepts of classroom action research, (2) class action research cycle, (3) data collection techniques, (4) data analysis techniques, (5) data interpretation[7,8]. To find out the effectiveness of increasing teacher understanding in classroom action research the n-gain test was calculated using the formula[9]: n-gain = [*post-test* score - *pre-test* score] / [100 - *pre-test* score] with the following categories: (a) high category if n-gain ≤ 0.3; (b) medium category if 0.3 <n-gain <0.7; and (c) high category if n-gain ≥ 0.7.

III. DISCUSSION

Based on the test results obtained by the teacher's understanding of the method of classroom action research in pre-test and post-test can be seen in Table 1.

	Teacher's understanding of research	
	Pre-test	Post-test
Average score	41.07	80.71
Max score	55.00	90.00
Min score	32.50	75.00
Average n-gain score	0.67	

Table 1:- Scores of Teachers' Understanding of the Classroom Action Research Method.

Table 1 above shows that there is an increase in teacher understanding of classroom action research methods. The average score before being given a classroom action research workshop was 41.07 while after being given a workshop the average score of teachers' awards for the classroom action research method was 80.71. For the highest and lowest scores in the pre-test respectively are 55.00 and 32.50, this score has increased in the post-test for the highest score is 90.00 and the lowest score is 75.00. The increase in the score of teachers' understanding of the classroom action research method was also measured from the average n-gain score obtained by 0.67, this indicates that there was an effective increase in the teacher's understanding of classroom action research in the medium category.

As for the ability of the teacher's understanding of the classroom action research methods described based on test indicators, the results obtained in the case of table 2.

Indicator	Teacher's understanding of research	
	Pre-test	Post-test
Basic concepts of classroom action research	34.82	75.89
Classroom action research cycle	42.86	76.79
Data collection technique	39.29	83.93
Data analysis technique	47.32	84.82
Data interpretation	41.07	82.14

Table 2:- Teachers' Understanding of the Classroom Action Research Method Based on Test Indicators

Table 2 above shows that all measurement indicators have increased from pre-test scores to post-test scores. In the basic concept indicators of classroom action research the score obtained for pre-test was 34.82 while for the post-test to be 75.89, in the indicator cycle of the classroom action research the score obtained for pre-test was 42.86 while for the post-test it became 76.79, the indicator for collecting data technique scores obtained for pre-test is 39.29 while for post-test to 83.93, the indicator of data analysis technique obtained for pre-test is 47.32 while for post-test to be 84.82, the interpretation indicator for data obtained for pre-test is 41.07 while for post-test becomes 82.14.

Improved scores of teachers' understanding of the classroom action research method are due to the process of action given to the trainee teachers. The action activities given to the teacher are carried out by the methods of discussion, question and answer, presentations, and assignments. This causes the teacher participants in addition to understanding the concepts are also able to understand the classroom action research procedures. The material presented by the facilitator/ instructor includes, among others, the basic concept material of classroom action research which includes urgency, the basic principles of classroom action research.

In the implementation of the training, participants also obtained material, namely the class action research cycle, in that session the material contained components of the class action research cycle, examples of activities from the components of the class action research cycle. Other materials provided during the training were data collection techniques, in the session the teachers were trained to know the types of research data, to know the types of data collection techniques such as observation, tests, interviews and preparation of data collection instruments according to data collection techniques. In the data analysis technique material, the teachers are trained to recognize and identify data analysis techniques that are in accordance with the formulation of the research problem, research data, and data collection techniques. At this stage the teacher is trained using descriptive and quantitative data analysis methods. In the final material which is data interpretation material, the teachers as trainees are trained to interpret the data provided, make discussions and draw conclusions based on the results of data analysis. By carrying out all stages of the training, this has an impact on increasing teacher understanding of classroom action research, this can be seen from the increase in the pre-test average score of 40.07 to 80.71. When viewed from the average n-gain score obtained is 0.67, this indicates that there is an effective increase in teacher understanding of classroom action research in the medium category.

IV. CONCLUSION

Based on the Discussion Results above, it can be concluded that the classroom action research training provided to teachers by the method of discussion, question and answer, presentation, and assignment is effective in increasing teacher understanding of classroom action research in the medium category.

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