

The Ability to Explain by Prospective Teacher on Microteaching Course

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Abstract— The purpose of this research is to know the process of explaining skill of teacher candidate of mathematics education in micro teaching course. The type of this research is descriptive research with qualitative approach. The subject of this research consists of 25 students of the 2013 Mathematics Education Study Program. The instrument used is an explanatory sketching rubric sheet and an interview sheet. The data analyzed is the result of the rubric of explanatory skill assessment and interview results. Data analysis techniques used are the concept of Miles and Huberman, namely data reduction, data presentation, and withdrawal of conclusions. The results of the research indicate that: (1) mathematics education teacher candidate on indicators of the use of method / model of learning is optimal, but the characteristics of using various media in accordance with competencies less than optimal (2) mathematics education teacher candidate on indicators of material accuracy less than optimal because two characteristics less optimal (3) mathematics education teacher candidate on competency control indicator has been optimal, but the characteristics of the practice students give reversal and model clearly to the learning behavior that is appropriate / not in accordance with the competence that should be less than optimal.

Keywords—*Process; explaining skill; Prospective teacher of mathematics; Micro teaching courses.*

I. INTRODUCTION

In the curriculum of mathematics education IKIP Budi Utomo Malang, micro learning is given in the sixth semester because students will carry out practice field experience activities. The course is a prerequisite for students who will follow practice field experience activities. Thus, when students implement practice field experience, students must master the teaching skills. The micro teaching course prepares the students to be teacher candidate who are able to improve their educational staff in a variety of specific skills. In addition, prospective teachers should be able to prepare for learning, implement the plan made, manage the class, and master the material well. Mathematics education teacher candidate need a lot of skills in teaching. Skills in teaching, among others, open learning skills, explaining skills, questioning skills, strengthening skills, skills to vary, and closing skills [1] However, one of the skills related to mastering the material in learning is the skill of explaining.

Based on the above background, there are research questions as follows.

1. How to use teacher candidate method of mathematics education in micro teaching course?;
2. What is the accuracy of mathematics subject matter in micro teaching course?;
3. How to master competence of teacher candidate of mathematics education in micro teaching course?;

II. LITERATURE REVIEW

A. *Explaining Skill Process*

Explaining skills for a prospective teacher is a very important skill. Explaining skills include ways of explaining, skills that students have mastered is delivering material in a structured (systematic) order, putting pressure on important parts, using examples that follow deductive patterns or inductive patterns, and giving feedback to know the students' understanding by asking response or student questions [2] In this research the skill explains there are some things that is the use of method, material accuracy, and competence of teacher candidate.

B. *Teacher Math Candidate At Micro Teaching Course*

Micro teaching is a system that uses the teaching practice method in a small format of the learning component. Micro teaching should include some of the teaching skills that students get during the course [3] Micro teaching courses are able to train and provide direct experience to teacher candidate as the provision of the necessary competence development and able to apply these skills significantly and professionally [4].

Mathematics education teacher candidate should follow micro teaching courses. This is because mathematician candidates must master mathematical material and collaborate mathematics in everyday life.

III. RESEARCH METHODS

The type of this research is descriptive research with qualitative approach. The subject of this research consists of 25 students of class of 2013 Mathematics Education Program. The instrument used is an explanatory sketching rubric sheet and an interview sheet. The data analyzed is the result of the rubric of explanatory skill assessment and interview results. Sources of

data in this study were students as research subjects. Data analysis techniques used are the concept of Miles and Huberman, namely data reduction, data presentation, and withdrawal of conclusions [5]. Techniques The validity of data used is time triangulation and using reference adequacy.

Analysis of the research conducted is the skill analysis to explain the candidate math teacher in the micro teaching course. The indicators of this study are described as follows.

TABLE 1. RUBRIC EXPLANATORY RATING RUBRIC INDICATOR

Indicator	characteristics
Use of method	Method / Model used involves student activeness
	The method / model used involves students to work with other students
	Methods / Models used involve students to explore and expand understanding
	Using various media in accordance with the competence
	Build a classroom atmosphere so as to create enjoyable learning
Material accuracy	The material is presented according to the basic competencies and indicators in the curriculum
	Material presented accurately (theoretically correct)
	Basic material is elaborated / developed from indicators adequately
Mastery of competence	Students who practice can present and demonstrate competencies that should be mastered by students through examples / modeling
	Students who practice to give feedback and model clearly to the learning behavior that is appropriate / not in accordance with the competence that should be
	Students who practice can respond to student questions and comments appropriately and adequately

- Each appearance of the characteristics of the optimal (perfect) got a score of 2, the emergence of characteristics but less optimal gain score 1, and not the appearance of the characteristics got a score of 0
- Maximum score $2 \times 11 = 22$
- value = $\frac{\text{acquisition score}}{22} \times 100 \dots\dots\dots(1)$

[1]

IV. RESEARCH RESULT AND DISCUSSION

A. Use Of Methods/Models

In the indicator use method / model there are 5 characteristics. The characteristics are (a) The method / model used involves student activeness; (b) The method / model used involves students working with other students; (c) The method / model used involves the student to explore and extend the

understanding; (d) Using various media in accordance with competence; (e) Build a classroom atmosphere so as to create enjoyable learning.

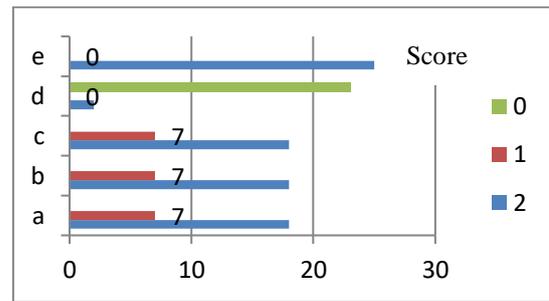


Fig 1. Method/Model Usage Indicators

Based on the above diagram mathematician candidate is very good on the indicator of the use of the model / method, but on the characteristics of some characteristics not yet optimal. The results showed that: a) the method / model used involved optimal student activeness of 18 subjects and 7 subjects less than optimal; b) the method / model used involves students to cooperate with other students optimally as much as 18 subjects and 7 subjects less than optimal; c) the method / model used involves the students to explore and expand comprehension optimally as much as 18 subjects and 7 subjects less than optimal; d) Using a variety of media in accordance with the competence of an optimal of 2 subjects, and 23 not optimal; e) build a classroom atmosphere so as to create optimally fun learning in 25 subjects.

Based on characteristic interviews using various media in accordance with the competence of only a few optimal subjects. The other characteristics of many subjects that have been optimal than less than optimal.

B. Material Accuracy

Based on characteristic interviews using various media in accordance with the competence of only a few optimal subjects. The other characteristics of many subjects that have been optimal than less than optimal.

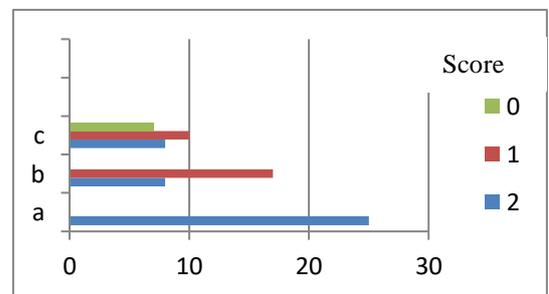


Fig 2. Material Accuracy Indicator

Based on the above diagram mathematician candidate is very good on the indicator of the use of the model / method, but the characteristics of some characteristics not yet optimal. The results showed that: a) the material presented according to basic

competence and indicators in the curriculum optimally as many as 25 subjects; b) the material is presented accurately (right theoretically) optimally for 8 subjects and 17 less than optimal; c) the subject matter is elaborated / developed from indicators adequately in an optimal manner of 8 subjects, 10 subjects are less than optimal, and 7 subjects are not optimal.

Based on the interview the material characteristics are presented accurately (true theoretically) there are still many subjects that are less than optimal as well as the characteristics. The basic material is elaborated / developed from the indicators adequately. The other characteristics of many subjects that have been optimal than less than optimal.

C. Mastery of Competency

In the indicator use method / model there are 5 characteristics. The characteristics are (a) Students who practice can present and demonstrate competencies that should be mastered by students through examples / modeling; (b) Students who practice to give feedback and model clearly to the learning behavior that is appropriate / not in accordance with the competence that should be; and (c) Students who practice can respond to student questions and comments appropriately and adequately.

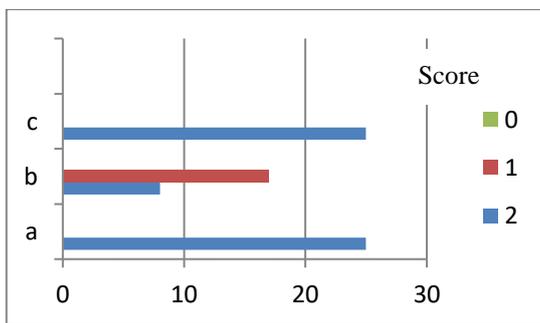


Fig 3. Competency Mastery Indicators

Based on the above diagram mathematician candidate is very good on the indicator of the use of the model / method, but on the characteristics of some characteristics not yet optimal. The results showed that: a) Practical students can present and demonstrate competencies that should be mastered by students through optimal modeling / modeling of 25 subjects; b) Practical students provide explicit and clear models of learning behaviors that are appropriate / not in accordance with the competencies that should be optimal as much as 8 subjects and 17 subjects less than optimal; c) Practical students can respond to questions and comments of students appropriately and adequately in an optimal 25 subjects

Based on interviews the characteristics of practical students give feedback and model clearly against the appropriate learning behavior / not in accordance with the competence that should be many subjects that are less than optimal. The other characteristics of many subjects that have been optimal than less than optimal.

V. CONCLUSIONS AND SUGGESTIONS

Based on data analysis from the research conducted, it can be concluded as follows. (1) mathematics education teacher candidate on indicators of the use of method / model of learning is optimal, but the characteristics of using various media in accordance with competencies less than optimal (2) mathematics education teacher candidate on indicators of material accuracy less than optimal because two characteristics less optimal (3) mathematics education teacher candidate on competency control indicator has been optimal, but the characteristics of the practice students give reversal and model clearly to the learning behavior that is appropriate / not in accordance with the competence that should be less than optimal.

The suggestions are: (1) mathematics education teacher candidate must be able to use method / model appropriately in learning; and (2) the candidate of mathematics education teacher must master the material and control the competence optimally

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