



The implementation of group modelling and guiding based on lesson study to improve college student's basic teaching skills

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Abstract

Basic Teaching Skills course demands students technically on teaching techniques prior to implementing the program of Program Pengalaman Lapangan (PPL) at school in the next semester. The purpose of this research is to improve the basic skills of teaching students especially on three aspects: ask, explain, and open the lesson or apperception skills. The methods used is modeling of teaching that combined with group guidance as a preparation of learning scenarios. In modeling, the researcher acts as a high school model teacher. Each skills consist of two meeting of learning. Data was collected through an observation sheet given to two observers and video documentation by handycam. The results obtained that through modeling of teaching by researcher can improve the skills of students in teaching. This is reflected by the increasing of the confidence and some basic teaching component achievements in every learning meeting.

Keywords: modelling, lesson study, basic teaching skills

1. Introduction

Education is a continuous process in order to prepare superior and competitive human resources capable of contributing to the life of the community in the future. Education plays an important role on the progress of a nation that is as a means in translating the message of the constitution and the formation of character (nation character building). A smart society will give an intelligent life as well, and will progressively establish independence and creativity (Mulyasa, 2016) ^[14]. The education referred to in this case is the formal path education as described in constitution Number 20 (2003) on Indonesia's national education system.

One of the important components in the education system is the existence of professional teachers. Teachers are the most important spearhead of the entire educational device (Masyhud, 2010) ^[11]. Indonesia's constitutional Number 14 (2005) explains that teachers are professional educators who have the primary duty of educating, teaching, guiding, directing, training, assessing and evaluating learners in early childhood education formal education, primary education and secondary education. On the other hand, professionals are defined as work or activities undertaken by someone and become a source of income that requires expertise, proficiency, and professional education. A professional teacher must have a certain competence as a differentiator with other professions and as a prerequisite in carrying out the task. Competence in question is the competence paedagogik, professional, personality, and social. Teacher education in Indonesia is held by Lembaga Pendidikan Tenaga Pendidikan (LPTK). LPTK is a university which assigned by the government to organize teacher recruitment programs on early childhood education of formal education, basic education and secondary education, and to

organize and develop education and non-education (Regulation of Education Minister Indonesia Number 87, 2013). LPTK in this case plays an important role in preparing and providing prospective teachers of quality in various levels of education.

The curriculum at LPTK is designed so that students are able to prepare themselves as prospective teachers after completing the study. Therefore, the student of teacher candidate must master on basic teaching skill as a prerequisite to be a professional teacher which one of the ways can be obtained through micro learning (Frasetyana *et al.*, 2015) ^[7].

This is confirmed by research by Sen (2009) ^[17] which states that students' self-confidence teacher education program improved after doing micro learning. Micro learning until today is widely adopted by a number of universities that have teacher education programs (Butler, 2001; Benton-Kupper, 2001; Amobi, 2005; Harrison, 2005; Lee and Wu, 2006; Bell, 2007) ^[4, 3, 1, 8, 10, 2].

Modeling in this study is intended as a demonstration of micro teaching, while group guidance is to guide students in the group to develop learning scenarios. Preliminary observations made on show a lack of basic skills in teaching students related to the skills of questioning, explaining, and opening lessons. Based on the observations, the researcher identifies several problems such as 1) the student tends to avoid when the lecturer asks the question at the beginning of the lesson 2) not many students ask questions about the topic being studied, and 3) the students' inquiring ability is not evenly distributed. When practicing teaching in front of colleagues, the facts are found 1) the students still lack confidence in explaining a material 2) the explanation given is not yet focused on a material and not systematic, and 3) while practicing apperception, students do not formulate problems as part of the

learning objectives to be achieved.

Based on the problems found during the initial observation in the field, the purpose of this study is to improve the basic skills of teaching students in three aspects namely the skills to ask, explain, and open the lesson. The improvement of three basic teaching skills is done through modeling method combined with group guidance by researcher based on lesson study.

2. Methods

This research is a classroom action research based on lesson study for three cycles conducted through modeling combined with group guidance. The model used is adapted from Kemmis & Mc Taggart (1988) design consisting of plan, act and observe, and reflect. The research was conducted in one class (offering A). The subjects consisted of 14 students of Biology Education 5th Semester, State University of Malang.

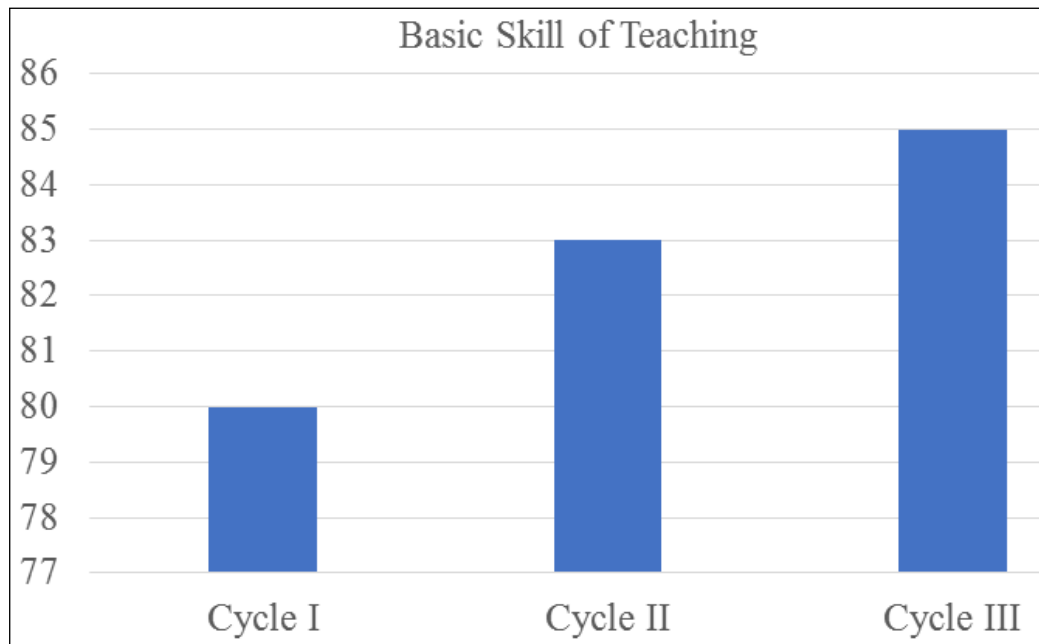
The research instrument used was observation sheet and documentation of learning activity through photos and video using handycam during the learning took place.

Lessons are held for two meetings per week, Monday and Friday. The first meeting (Monday) is done by teaching modeling by the researcher followed by group coaching activities (design learning scenarios) for 2 x 50 minutes. The second meeting (Friday) is practiced by students for 3 x 50 minutes based on the design learning scenarios that has been prepared. Learning at each meeting is done through the principle of lesson study with three stages of planning (plan), implementation (do), and reflection (see).

The data collection was done through the observation of the researcher during the learning and observation sheet of basic teaching skill given to peer observer. Data were obtained from six meetings based on observation scores supported by video recording learning.

3. Results and Discussion

3.1 Skills for teaching student skills



Source: data observer and learning video analysis

Fig 1: Skills for Teaching Student Skills

3.2 Implementation Modelling



Fig 2: Modelling of teaching by researcher



Fig 2: Modeliing of teaching by students

Each research cycle consists of two meetings with the stage plan, act and observe, and reflect. The plan is carried out together with a lesson study team consisting of researchers, observers, and expert lecturers who are intended as the preparation of learning scenarios that include objectives, learning steps, tools and media used, and time allocation of activities. After the plan is prepared, it is followed by the act and observe of teaching practices that are held in the classroom. One teacher's model was observed by two peer-reviewed observers. After the act and observe is complete, the next stage is reflection the learning activities for one cycle. Each meeting formed by 4 different groups (3-4 members).

3.2.1 Cycle I

The material taught in the first cycle is a questioning skill. At the first meeting, the researcher acted as a high school model teacher with material on Forest Fires in Indonesia. At the beginning of the lesson, researchers presented two 3-minute videos of forest fires that had occurred in Riau and Kalimantan island. Furthermore, researchers asked students to ask questions about the video that has been displayed. There are three main questions that become the formulation of the problem. After all questions are answered, the researcher finishes the modeling and proceeds with group guidance. The goal is to guide students to develop learning scenarios. Students who have finished drawing up the scenario, then present it in front of colleagues in the form of teaching practice, while the unfinished group, performing at the next meeting with only one or two represented.

At the second meeting, students do teaching practice based on modeling conducted by researchers. There were five students who performed at this meeting with an average score of 80 based on the results of the data from the observer. Qualitatively, there is an improvement achieved by students who acted as model teachers before applying the modeling that is able to provide directional questions at the beginning of the learning so that students are motivated to learn the material. The model teacher has also been able to use redirecting techniques by throwing questions into the whole class then selecting a particular student and proceeding to another student. Reflection on cycle I as unachievable is that the model teacher has not yet appeared to reinforce student answers and lack of tracking questions.

3.2.2 Cycle II

Material Cycle II is an explaining skill performed. At the first meeting, the researcher acts as a high school model teacher with the material of Abiogenesis and Biogenesis Theory. The researcher modeled the skill of explaining for 20 minutes by drawing illustrations of Lazzaro Spallanzani, Fransesco Redi, and Louis Pasteur on paperboard. After the modeling explains the completion, proceed with group guidance in the framework of the preparation of learning scenarios.

At the second meeting, the student acted as teacher of the explanatory skills model. The average score obtained from the results if the observer data amounted to 83. Some things that become learning achievements of the teacher model of confidence in teaching is well characterized by facial

expression, sound tempo, and familiarity with all students. The model teacher has also been able to explain the subject matter in accordance with the specified time allocation and the absence of language repetition when explaining. The result of cycle II reflection that the model teacher has been able to explain the material systematically, but the emphasis on the material that is considered important and feedback (feedback) on student answers is still lacking.

3.2.3 Cycle III

The third cycle material is the apperception skill. At the first meeting, the researcher still acted as a high school model teacher with Conventional Biotechnology materials. Researchers do the modeling for 10 minutes by displaying two conventional biotechnology products namely Tape and Singkong Rebus. At the beginning of the lesson, the researcher asks the students to taste the two foods and compare them. The researcher then asked the students to make the formulation of the problem as a learning objective on that day.

In the second meeting of cycle III, all the students who attend the role as model teachers with different materials. The average score from the result of the observer data is 85. Learning achievement at this meeting, among others, the model teacher has been able to perform apperception in a concise, clear, and attract students attention in accordance with the allocated time. The thing that is not yet apparent from the model teacher is giving students challenging questions.

Overall, there was an improvement in the teacher's teaching skills model from cycle I-III. It is analyzed from the researcher's observations at each meeting coupled with the video recording of the lesson when the model teacher teaches in front of colleagues. The achievement of teacher model teaching skills in this study is in accordance with Mergler and Tangen (2010) ^[13] research results which states that micro learning can improve students' teaching skills from time to time. Mauigoa and Tekene (2006) ^[12] stated that teacher's teaching skills can improve students' thinking level. Peker's research (2009) also confirms that micro learning is able to demonstrate the true way of teaching so that it can have implications for the formation of teachers' self-confidence when teaching.

4. Conclusion

Questioning skills of students who acted as model teachers in the first cycle of 80%, skill explain on the second cycle of 83%, and students' opening skills (apperception) in the third cycle of 85%. The components of questioning skills that have been achieved by the model teacher include clear questions, redirecting techniques, and thinking opportunities for students to answer questions. Components of skills to explain that has been achieved, among others, good confidence in presenting the material, the use of language that is easy to understand and not repeated, and the explanation presented systematic according to the formulation of the problem. Components of open learning skills that have been achieved, among others, apersepsi given presented briefly, clearly, and attract students' attention.

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