



Analysis of the Learning Obstacles Based Lesson Study on the Lecturer Models in Subject of Animal Diversity and the Solutions

Rahman Fadli¹, Sri Endah Indriwati²
Universitas Negeri Malang, Indonesia
cerdasbermanfaat@yahoo.com

Abstract: Lesson study based learning by magister students who took subject lecture and practice field was an experience as lecturer model. The aim of this study was to take data and information about learning obstacles based lesson study on the magister students (as lecturer models) in subject of animal diversity. This research used descriptive exploratory. Data collected by observation and interview. The observation was conducted in August 2016 to October 2016 during learning process in the class. The interview was conducted to six lecturer models. Technique analyzed by qualitative approach. The result of this research showed that there are same obstacles on lecturer models during learning process. The obstacles were: lacking of confidence, in this case some lecturer models nervous when learning was started; over timing; the concepts and learning material were not understand optimally; syntax was not implemented correctly, and teaching techniques was not professional. The solution could be given in some aspect: plan learning, concept and material subject, learning method, and teaching professionalism especially in lesson study. The conclusion of this research was learning based lesson study on the lecturer models in animal diversity subject has the same obstacles and need efforts as the solution.

Keywords: lesson study, lecturer model, animal diversity, the learning obstacles

The goals of Biology Education Study Program, Postgraduate Malang State University are (1) professional in implementing learning biology and biology education for S1 and schools. (2) to develop science and technology in the field of biology and biology education through the organization of research, development, and other scientific activities; (3) to conduct monitoring and supervision of the implementation of the biology education, both in S1 and school levels. Based on the goals, there were two competencies: (1) conduct learning biology and biology education, both the graduate program and school levels; (2) improve the ability of teachers to implement teaching biology in schools through training programs (Pascasarjana UM, 2015).

In order to realized competencies graduate master education of biology, the competences to be implemented in the lecture curriculum. One of subject which could be improve competences was studies and field experience (KPL). Pascasarjana UM (2015) stated KPL was subject that linked theory with practice through the implementation in learning microteaching with lecturer subject as guide and adviser. The postgraduate students plan, do, and evaluate educational program in institution or people. In the end of KPL time, students must make a individual or group report. KPL was action research based on lesson study.

Action research is a form of disciplined inquiry used to investigate a problem or question of personal interest where there is no satisfactory present answer. It is a cyclical process in which educators use primary resources and real-world information and data to inform new courses of action (Johnson, 2001). It helps educators know that their questions and perspectives matter and pursue investigations that are of authentic concern from a motivational perspective, (Ginsberg, 2011).

Action research can be a powerful tool to strengthen instructional leadership. Action research can also be a collaboration form of learning. For example, the Japanese “lesson study” method through which educators investigate an instructional concern by designing a lesson together, watching a colleague teach the lesson, and then reflecting can be collaborated with action research. It called action research based on lesson study.

Lesson study is a professional development process that Japanese teachers engage into systematically examine their practice (Fernandez *et al*, 2004). Lesson study is a cycle in which teacher work together to consider their long term goals for students, bring those goals to life in actual “research lesson”, and collaboratively observe, discuss, and refine the lessons (Lewis, 2002). Lesson Study is a “comprehensive and well-articulated process for examining practice” (Fernandez, Cannon, & Chokshi, 2003).

Lewis (2002) describes the *Lesson Study Cycle* as having four phases: goal-setting and planning – including the development of the Lesson Plan; teaching the research lesson enabling the lesson observation; the post-lesson discussion; and the resulting consolidation of learning. The phenomenon known as lesson study evolved through precisely such a sharing of responsibility, and a collaborative process of preparing lesson plans, conducting and observing lessons, checking and evaluating teaching, reflecting on practice, and planning. It means, there was any differences about lesson study cycle or steps. In this KPL subject used steps from Saito *et al*.

There were 3 steps in lesson study: plan, do, and see (Saito, *et al* 2005). Action research based on lesson study was learning process in KPL used 3 steps plan, do, and see). It means was the lecturers model used method and strategy to taught in the class, not only taught the lecturers model also as an observer during learning process if not as a lecture. Lecturers model was taught animal diversity subject in this KPL.

Animal diversity is a subject that is taught at the State University of Malang on S1 Biology Education courses. This subject has learning objectives include: Understanding the concept of animal diversity, classification, and taxonomy; applying the principle of classification of animals based on the biological characteristics (morphology, anatomy, physiology, DNA, habitat, livelihoods) and its relation to the role / benefits for everyday life in animal samples from members of each phylum/subphylum.

Lesson study based learning by magister students who took subject lecture and practice field was an experience as lecturer model. Implementation KPL in animal diversity subject has a lot of information that can be obtained during the learning. In this discussion, it will be examined the other side of the lesson study, the postgraduate students' first experience as lecturers model of biology education. It is first experience as lecturer model taught graduate program. Its means there was many something that found, one of them was the obstacles. As the lecturer model, there were many obstacles that found. The assessment will be focused on the obstacles encountered during a lecturer in the model as well as the solutions that will be given to overcome it.

METHODOLOGY

This research used descriptive exploratory. Data collected by observation and interview. The observation was conducted in last August 2016 to October 2016 during learning process in the class. Based on lesson study this observation was conducted during Do process of lecturer model. The interview was conducted to six lecturer models. Based on lesson study this interview was conducted during See process (Reflection). Technique analyzed by qualitative approach.

RESULTS & DISCUSSION

The result of this research showed that there are same obstacles on lecturers' model during. The table 1 showed the result of obstacles:

Table 1 Aspects of Obstacle

| No. | Aspect | Described |
|-----|-------------------------------|--|
| 1 | Self confidence | Lacking of confidence, in this case some lecturer models nervous when learning was started |
| 2 | Timing | Over timing |
| 3 | Concept and material learning | It show good concept but the concept and material learning should be optimally know. |
| 4 | Syntax | Good implemented, but not thoroughly lecturer model completed the steps. |

The first experience as lecturer model has made some of them felt nervous. It's normally condition. One well-established finding in psychology is that actions give rise to feel. Eison (1990) states there are no impression without expression. Thus, to feel confident in the classroom the neo Phyfe instructor must begin acting confidently. "Easier said than done" or "How does one begin?" the doubtful reader might rightfully reply. Increased confidence about one's teaching will result when the following general recommendations are implemented and practiced regularly.

Almost of lecturers model are over timing in their class. Time management was important to effective and optimally during process. Ugluwashi (2012) stated the realization of educational goal despite the amount of resources involved remains ineffective without good time management. Time is an indispensable element in successful accomplishment of any activity and refers to a "particular period". The condition happened because during process learning (main activity) spent many times. The students' enthusiasm during process, it's good but the risk not good for time management.

Lecturers model had a good knowledge about material learning, but occasionally still have doubt. Teacher's cognitive abilities do determine students' academic performance and effective classroom management (Rice, 2003; Khojastehmehr & Takrimi, 2009; Wayne & Young, 2003; Rackoff, Jacob, Kane & Staiger, 2000). In reviewing the literature related to teacher quality models, Harris and Rutledge (2007) have concluded that the predictors of teacher quality and effectiveness are cognitive ability, personality attributes and educational background.

As a lecturer model, taught could be saw to include the technical knowledge especially about animal diversity which encompasses professional judgment that requires strong knowledge base or cognitive ability.

Generally, all of syntax which used in learning had good implemented but there was one or two steps that could be attention to recognized and then fixed it. The table 2 was showed it:

Table 2 Syntax Condition

| Lecturer Models | Method | Steps |
|-----------------|---------------------------------|---|
| 1 | PBL | Presenting problem |
| 2 | TPS mixed Experiential Learning | Generalizing: connect to real life Applying: plan effective change |

| | | |
|---|--------------------|---|
| 3 | STAD | Achievement to students |
| 4 | Guided Inquiry | Formulation problem difference between students |
| 5 | Discovery Learning | Data processing report |
| 6 | PjBL | Determining project based on lecturer , not students. |

Presenting problem in PBL was abstract, the student felt difficult to described something that related material with problem. This was became responsibility of lecturer model to presenting concrete problem. TPS mixes Experiential Learning was not presented generalizing and applying. It happened because the material had not something which touched directly to connect to real life students. Material is talking about Cnidaria. STAD not implemented step achievement to students. This is important as main step. The condition happened because overtime. Guided inquiry has good implemented but the first step not enough strength to formulated problem so that the problem difference between students to other. Discovery learning during processing data is not including data processing report. PjBL was method spent long time. The implementation was good. The step must be fixed was determining project. Determining project based deal between lecturer and students, not only lecturer.

Teachers are also school managers who manage their students in and out the classroom. Thus, curricular and co-curricular activities must be planned and executed effectively to ensure students' holistic development (Abdul Rashid & Bokkasam, 2005). The obstacles had been happened could be fixed with some solutions, the solutions that could be fixed it, are:

1. Plan learning: At this stage all participants LS expected to plan the learning process together. Planning activities implemented jointly will have a positive impact on results will be obtained.
2. Concept and Material Subject: Before starting learning (do), lecturers are expected to master the material with good models. This can be done by: reading the references relating to the material or subject taught, in this case that of the diversity of the phyla of animals in particular; All participants LS conduct an academic study of the teaching materials that have been, so that learners can be optimized to get the material and avoid misconceptions; Invited lecturers specialists or experts in their fields, such as faculty diversity of animals to provide the material with this understanding will be owned by the lecturers and participants LS models will be more comprehensive.
3. Learning method: Study method of learning is very important so that will give you an understanding of the observance.

SUMMARY AND CONCLUSION

Learning based lesson study on the lecturer models in animal diversity subject has the same obstacles in generally. The obstacles were self-confidence, timing, concept and material learning, and syntax. I suggest that for magister students be given concept and sharing experience about lesson study. If we include part of lesson study, as an observer or lecturer model, at the same time we are as a researcher actually.

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