



THE SOCIALIZATION OF LESSON STUDY ACTIVITIES TO IMPROVE BIOLOGY TEACHER PROFESSIONALISM AT SMAN 3 UNGGULAN MARTAPURA OKU TIMUR

Riyanto

The Lecturer in Biology Education Department of Mathematics and Natural Science

Faculty of Teacher Training and Education Sriwijaya University

Jln Raya Palembang-Inderalaya Km 32, Ineralaya Ogan Ilir in South Sumatra

Indonesia 30662

E-mail: riyanto1970@yahoo.com

Abstract

The world of education today is advance; learning improvements have been made in various ways. One way to improve the professionalism of biology teachers needs an example of lesson study (LS) activities. LS activity has been shown to increase the professionalism of teachers. The purpose of writing this paper is to provide information that the socialization of lesson study can motivate the increasing of high school biology teachers' professionalism in OKU Timur. In the end, they will skillfully prepare the learning materials, understand teaching materials well, the relationships between teachers become stronger and so on. The research was conducted in November 2012 in class XII IPA 2 SMA 3 Unggulan Martapura OKU Timur academic year 2012/2013. The subject is Heredity in humans. The numbers of students are 25. The research was carried out one cycle or one meeting. The method used is descriptive method of observation technique and literature. This activity is done in three stages: plan, do and see. The data in this study were collected through observation in the classroom at the time of learning, evaluation and questionnaires for students and teachers. The results of socialization of LS biology subjects in class XII IPA2 of SMAN 3 Unggulan Martapura OKU Timur: 1. LS motivate the increasing of high school biology teachers professionalism in the OKU Timur, because it can increase teachers' knowledge or skills in creating, preparing for the learning of biology. 2. LS can enhance the satisfactory of evaluation results with an average biological value above KKM. 3. LS finds the methods of hereditary material in humans more effectively with simulation activities involving all of students. 4. LS gives a positive response or satisfactory answers to the activities of LS. 5. There are still shortcomings, namely, the lack of classroom interaction or interaction in one direction, it is necessary to get the attention for the next cycle should be improved. At the conclusion teacher gives conclusions directly. The conclusion should be made by students with the guidance of teacher.

Key words: Lesson Study, Professionalism Teacher and Biology Learning

INTRODUCTION

The results of research mapping of quality biology subjects senior high school in OKU Timur 2011 some material get value national examination (UN) is still low. Based on the results of the focus group discution (FGD) found compliance between value of UN and the comprehension of the biology teachers at SMA OKU Timur. The biology teacher less attend in training. A biology teacher at SMA OKU Timur in 14-year period just one time attended training material learning devices. Other biology teacher reveals that he has attended training on subjects of local content. In addition, an understanding of the subject matter and learning device is less (Hartono, et al., 2011). Such a condition must be looked for solving problem in order to increase the quality of biology subjects in SMA OKU Timur can be realized.

World Education is currently more advanced in learning and improvement has many way. The use of models, methods, approaches and strategies have been studied by biology teacher candidates in college. The use of modern techniques were assisted by media and ICT has also been done. All of these activities are expressed, it can produce professionals biology teacher candidate in biology subjects. Teacher discussion activity in biology subjects (MGMP) at SMA OKU timur already exists, but less optimal. To increase professionalism of teachers, its needed an example of biological activities, namely lesson study (LS). LS activities have proven to be able to enhance the professionalism of teachers (Supriatna, 2011). Professional teacher has professional competence, social competence, padagogik competence and competence of personality (Rachman, Mahsunah, 2011 and 2012)

LS is a model coaching profession through study of educator learning collaboratively and sustainably is based on principles of mutual learning and kolegalitas to build a learning community. When we examine, some of the main objectives LS are increased knowledge about teaching, learning content, learning activities, observing the quality of the learning plan, increasing kolegalitas relationships, and increasing motivation to constantly develop (Supriatna, 2011). Therefore, the activities of LS particularly suited to biology teacher in SMA OKU Timur became professional teachers.

From the results of FGD with biology teachers in SMA OKU Timur problem solving model is a model of mentoring such as coaching and learning device making materials in each cluster MGMP. Teachers that are trained to become a model teacher can effects on biology teachers in cluster MGMP. FGD results was very appropriate, because the activities of the LS has been covering what is desired by biology teacher in SMA OKU Timur. Therefore, the issue is whether the activity of socialization LS can motivate biology teachers improvement of professionalism in SMA OKU Timur. The purpose of this paper is to provide information that the activity of socialization LS can motivate to improvement of professionalism biology teachers in SMA OKU Timur.

RESEARCH METHODS

This research was carried out in November 2012. The research in class XII IPA 2 SMA Negeri 3 Unggulan Martapura OKU Timur in academic year 2012/2013. The topic of Heredity in humans. The number of students are 25 persons. The used method is descriptive method with the techniques of observation and literature study.

Procedure

This activity is done with three stages, namely the plan, do or teaching and see or reflection (Supriatna, 2011 and Bilyeu, 2009).

Plan

This step produces a lesson design that is believed able to motivate students effectively in learning. In the plan, teachers collaboratively share they ideas about each experiences. The plan produced a lesson design, observation sheets and instrument response for students and teachers activities LS.

Do

Do aims to implement lesson design that have been arranged by team. In process one teacher roles as model teacher. On the other hand team members other roles as an observer according in

observation sheet that has been made. Observations focus on the learning students not on model teacher. Observer shall not disrupt the process of learning.

See

The purpose of see stage is to find the advantages and disadvantages of model teacher. At beginning model teachers say impression and next the observer is given a chance to pass advice and criticism. Criticism and advice are directed in order to improve the quality of learning without degrading or hurt model teachers. Positive feedback is used to design the next instruction.

Data Collection Techniques

Data collected in class observation, evaluation and question sheet. The observation is performed to obtain information on student learning behavior. Evaluation used to complete of learning, whether it reaches the KKM school. Question sheet is used to determine the level of satisfaction or student response and biology teacher response.

Analysis of the data

Descriptive Data from the results of observation, evaluation and the now analyzed qualitatively. Further data are written in the table form.

RESULTS AND DISCUSSION.

The Socialization of LS activities on Biology Teachers in SMAN 3 Unggulan Martapura OKU Timur

1. The Plan Stage

The plan stage carried out on Monday November 26th 2012. Before plan stage, the teacher, the supervisory and some of the headmaster in SMA OKU Timur get LS matter from Mr Dr.Hartono, M.A. as the head team on devotion activities to community. The purpose of to know LS matter, so the teacher, model teacher and the supervisory have known work that will be do. The plan stage followed by team members of LS biology subjects consisting of Joko Purwadi, S.Pd., as a supervisory and biology teacher in SMAN 3 Unggulan Martapura, Nasution, S.Pd., as biology teacher in SMAN 1 Belitang, Fiona Miranda, S.Pd., as biology teacher in SMAN 1 Martapura and Sudaryanti, S.Pd., as model teacher and biology teacher in SMAN 2 Martapura.

At this stage of the plan is assigned a model teacher, namely the Sudaryanti, S.Pd. For the purposes of the report as physical evidence of plan activity is documented by video handycam. Further to look for the information about the condition of the students, the number of students, the atmosphere of learning, laboratories and school facilities, it is needed to Do stage. The model teacher presented of the topic of the heredity in humans, whereas team members provide feedback for improvement of lesson design including how to present material of the heredity in humans. The models teacher and team members also deliver possibility the activities of students and how student response. This Plan was produced lesson design of the topics heredity in humans consists of lesson plan, student worksheet, studies media, teaching material, the question of evaluation and the question sheet for students as well as the observation sheet. It means the plan activity can be increase teacher skill in lesson design, so the biology teacher can be increase the competence of pedagogy or biology teacher become more professional. Stated by Cerbin and Kopp (2006) LS can be increase the ability of teaching and pedagogy of the teacher. LS is the creativity of teachers that can help improve the skills



taught in the class. Added by Dubin (2009) LS can be increase professional of teachers on primary school and secondary school in Japan.

2. The Do Stage

The Do Stage was carried out on Tuesday November 27th 2012. The model teachers is Sudaryanti, S. Pd., while the team members act as an observer. The result of the observation will be a material in See stage. Before the Do stage, Mr. Joko Purwadi, S. Pd. introduce the model teacher and the observer. This next, the results and discovery during Do stage in the process of learning and teaching (PTL).

The Activity Early

Most of the students have active to attention, when the model teacher tell the motivation and learning objectives. At first there's student still dreamy, then students are motivated to learn. It shows that the model teacher have been successful in managing and motivate students in the classroom. But there is still found two students don't learn, they busy themselves are not tracked by the model teacher. It is as important notes for teachers on the learning activities of the next meeting.

The motivation is provided by the model teacher, i.e. ask about the kinds of blood only succeed on students who sit in the front row. The motivation must be increase to the students who sit in the back. When teachers provide questions to the students about genotype the kinds of blood for example the kinds of blood A has genotype = $I^A I^A / I^A I^O$, most of the students answered in unison. It happens, because the model teacher doesn't give instructions don't to answer with together. Management of a better classroom can affect the results of the study.

The core activities.

The students learn to follow the simulation. The effort of model teacher invite students who are not learning to succeed. The students are invited to play the role of simulating the matrimony and determine the kinds of blood. In this activity, the model teacher model has find the steps to play a simulation to determine the kinds of blood child inherited from both parents. All of the students follow a process of simulation interchangeably, and students fill the LKS which given by the model teacher. All the students learn actively. It's because the model teacher using the method of playing the role. Role playing is meaningful work, become real and contextual. According to the Hakim (2007) that the student is able to relate the lessons with their living environment, make the students be a dynamic and creative. The learning system of contextual teaching and learning (CTL) can do meaningful work.

The Do activities carried out in the best class, so the students have regular discussions and working on LKS with individually. Fill the LKS individually cause less interactions between students. When the student fill LKS, the students are in the group, because the group work lead to occur an interaction between students or the interaction can improve learning activities of the students on cognitive, affective and psychomotor.

On the core activities of the learning process less interaction or the interaction is only one direction. It might be taken a example of the different simulation for two way interaction. The LKS answer's is written by the students on the board. Don't correction first for example that the number one is in compliance. It can lead the students who answer in incorrectly can cange with the correct answer e.g. Mada Uganda, when the model teacher says this answer is correct, Mada Uganda change the wrong answer immediately. The model teacher should offers the students to respond to answers of the LKS.

The final activity

All of the students learn and try to fill out the evaluation sheet. From the results of the evaluation of the meeting this time is successful, because the posttest results of students with average grades above KKM school. The model teacher can already be a good motivator to improve the study results of students. Conclusion learning delivered directly by the model teacher. Should the students get a chance to do more biology learning activities, that's interactive biology lessons material, so the students are driven to conclude his understanding of just listening to the biological material being taught.

3. The See Stage.

The See stage implemented after Do stage, the See stage is led by a moderator. First, the model teacher is tell the results of the study, whether the lesson is appropriate as the agreed in the Plan stage. The next the observer in turn provide feedback about student behavior in learning activities. As the recommendations for the model teacher, the activities that are well preserved, while the less activities need to be improved. The following weaknesses and advantages of the model teacher during in PLT with the topic determine the kinds of blood (Table 1 and Table 2).

From the Table 2 shows that the application of LS in class XII IPA 2 SMAN 3 Unggulan Martapura OKU Timur can be found advantages in the PLT or advantages the ability of competence pedagogy. It means LS can motivate biology teachers in SMAN OKU Timur become more professional. Lewis, Perry and Murata (2006) said the application of LS can improve the capabilities of instructional the teacher. It means, the instructional ability is knowledge of the teachers to repair the PLT in class. Added by Ono and Ferreira (2010) the application of LS is able to increase the teacher professional science and mathematics in junior high school at South Africa.

Table 2. The Weakness of the first LS and suggestions for improvement the next LS

No.	Weakness	Advice on repair in the next LS
1	Still found two students don't learn, they busy themselves are not tracked by the model teacher.	The model teacher must be monitor all of student learn in evenly.
2	The motivations given by the teacher, i.e. ask about the kinds of blood only succeed on students who sat in the front row.	The motivation be improved for students who sit behind.
3	At the model teacher given the questions to the students, most of the students in class were answered with together.	The model teacher must be provide guidance, that the students do not answer together or if there is a question of just one student who answered
4	At the simulation the learning process less interaction or interaction one direction.	Maybe it takes an example a different simulation or more than one example of simulations, so there are the way two interaction.
5	The LKS answer written by students in the white board justified first e.g. number one is appropriate.	The LKS answer that written by students in the white board justified having finished written out in full by the students
6	In the time to take the conclusions the model teacher give the conclusions directly	The conclusions with the guidance of model teacher conducted by the students.

Table 2. the advantages is to be retained for next LS.

No.	The advantages of the first LS
1	Most of the students has been active attention to the model teacher tell motivation and the purpose of learning. Means model teacher has succeeded in managing a class and motivates students well.
2	Most of the students learn to follow the simulation. It's means, the model teacher asked the students did not learn to succeed.
3	On the core activities, the model teacher finds the steps to simulations play to determine the kinds of blood of child that is derived from both parents via the gamete.
4	The observation this meeting succeed, it is proven from post test results that the average of values above kkm school.

The evaluation results of student in class XII IPA2 SMAN 3 Unggulan Martapura OKU Timur.

The evaluation results of biology the subject with the topic determination of the kinds of blood in humans showed satisfactory results. To more clearly is showed in the next table.

The Table 3. The evaluation results of student in class XII IPA2 SMAN 3 Unggulan Martapura OKU Timur

No	Score value	The number of the students
1	75	1
2	80	2
3	85	2
4	100	20
Avarage = 96,2		Totally = 25 siswa

The LS activities in class XII IPA2 SMAN 3 Unggulan Martapura OKU Timur is expressed successful. The evaluation results of post test gets scores between 75 to 100. From 25 of student just one student gets score 75, two students get score 80, two students get score 85 and 20 students get score 100. The score average of value in class 96,2, it means that value score had exceeded value of kkm school biology subjects, namely 80.

The results of the response student of class XII IPA2 SMAN 3 Unggulan Martapura OKU Timur

The result of quiz of the student in class XII IPA2 SMAN 3 Ungulan Martapura OKU Timur provide an answer that satisfy or positive students response 80 % -100 % to the activities of LS. These are some questions of quiz is on the LS activity the model teacher tell the purpose of learning in early activity, it is important to motivate students. The model teacher is support the students to be enterprising learn. The students have the pleasure of learning by way of teaching which is done by the model teacher of biology subjects. The topic of materials that is given can increase curiosity the students. The students pleased with the subjects of biology. The model teacher of biology subjects don't boring in teaching. For learning in groups, the model teacher guide to discuss. The model teacher use tools experiments in teaching. The model teacher gave LKS on each PLT. The model teacher make a group of learning on each PLT. The model teacher gave an opportunity the students to ask. The response of students show that model teacher is represent of the biology teacher that professional.



CONCLUSIONS AND ADVICE

Conclusions

The socialization results of LS activity on the biology teachers in SMA OKU Timur:

1. The LS motivate increase the biology teachers professionalism in SMA OKU Timur, because they can increase knowledge or skill in the make and prepare a design lesson.
2. The LS can obtain the satisfactory evaluation results with biology value score average above KKM of the school.
3. The LS can find learning method of human heredity materials is more effective with the simulation activity by all students.
4. The LS activity give positive response or satisfactory answer to the activities PLT in the classroom.

The advice

The LS can motivate to increase professionalism of he biology teachers, The LS can obtain the evaluation of students above kkm school, so suitable to be a model to increase professionalism the biology teacher in SMA OKU Timur.

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