

PROCEEDING

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LOMBOK-INDONESIA**

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International Conference on Elementary and Teacher Education

"To Excel in Teaching and Learning for Global Competence"

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Implementation Of Lesson Study As Efforts to Motivating students in biology course (the patterns of heredity content)

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Abstract

A contextual and active learning can be designed by the teacher as the person responsible in the learning process by applying the theory and principles of contextual and active learning. The learning system can be done with any various ways in practice, one of them is implementation of lesson study. By the implementation of lesson study expected to motivate students for learning biology courses, especially in the patterns of heredity content. The Research was done of students in 1st semester of the year 2015/2016 with 24 students at Program Biology educational STKIP Hamzanwadi Selong. The steps preparation of learning device in patterns of heredity content consists of plan, do, and see. A Data obtained, analyzed in descriptive qualitative by observation of activities during the learning process, that is attitude and skills students.

Keyword: lesson study, attitude, skills, a pattern of

Background

Submission of abstract content sometimes difficult to be submitted requires a careful planning to be easily understood by students. One of them is General biological, in it there are abstract contents and need a proper analysis. One of content in the biology is patterns of heredity, which discusses about the cross of plant. The problem often encountered by lecturers related with enhancement quality of teaching is essentially rooted in obscurity hierarchy in learning process. A planning, implementation and reflection learning process never implemented continuously collegiality and accountability.

Generally, lecturer prefers to work alone in preparing and implementing learning device. Learning activities dominated by lecturer konvensional method. Discussion method usually used to intersperse utilization discourse method is not applied properly. Discussion only applied if the student is charged a task group to make the paper a certain matter. As a result, creativity or innovation learning conducted by lecturers lacking overall improve the quality of learning. In addition, the impact also on student's motivation in study such as attitude and their skills during the learning takes place.

Based on this, necessary reforms and improvements to the mindset lecturers in order to collaborate and share with other lecturers and open to improvement learning. One of the learning systems suitable to be applied to improve learning process is Lesson Study. Lesson study is professional model for founding educators through assessments and ongoing collaborative learning based on the principles of collegiality and mutual learning to build a learning community (Hendayana et al, 2006). Lesson study was conducted in three steps namely is Plan, Do, and See. Gordon (Aunurrahman, 2011) states that the development of students is the aim by all colleges and lecturers, it means that very wrong if the lecturer just responsible for presenting the content in his courses. The development potential students in the learning process should be comprehensive and integrated. The development potential students are not balanced in turn will make tend education to be more concerned with the development one aspects of personality, particular and partial. Therefore, the problem that wants to put

forward in this research paper is how the impact implementation of lesson study in biology teaching, especially in the heredity of patterns content?

Research Method

This study used a qualitative descriptive to reveal the facts, variables, phenomena, and the circumstances that occurred while running research and presenting as it is. A respondent is students in first semester STKIP Hamzanwadi academic year 2015/2016 amounting 24 person. Observation instruments in the form of attitudes, skills and responses student learning. The indicators for Attitude (Cooperation, Responsibility, and Curiosity), and Skill (calculate, Using and Creating Tables). Attitudes instruments form are presented in Table 1, skill in table 2, and student responses in Table 3.

The process implemented previously patterns of heredity content that is meeting with other lecturer to discuss about learning device (syllabus) or be known as **Plan**. At the time of Plan, all of components in syllabus are discussed, from the suitability content, method, until the final assessment. After the plan, the next process is **Do**. Do is applying syllabus that has been in plan along other lecturer accordance course schedule and involves the observer, the observer is the lecturer in biology education program. Next step is See that is reflecting the activities during learning process. In the See, the findings presented by other lecturer as an observer, for the improvement of teaching at next meeting.

Tabel 1.
Attitude Indicator

Aspect	Indicator	Score	Number of student			
Cooperation	Actively involved during discussion	3				
	Less actively involved during discussion	2				
	Not actively involved during discussion	1				
Responsibility	Completed a work	3				
	Completing half a work	2				
	Not Finishing work	1				
Coriosity	Finding patterns and correctly	3				
	Finding patterns half and right	2				
	Not finding patterns and wrong	1				

Tabel 2.
Skill Indicator

Aspect	Indicator	Score	Number of student			
Calculate	Calculate F2 results and percentage correctly	3				
	Calculate F2 results and half percentage correctly	2				
	Calculate F2 results and lack percentage correctly	1				
Using a propeller	Using propeller carefully and correct	3				
	Using propeller carefully and unselective	2				
	Using propeller correctly	1				
Creating/ writing table	Creating / writing table complete and correct	3				
	Creating / writing table sketchy and correct	2				
	Creating / writing table incomplete and wrong	1				

Tabel 3.
Form of respon student about learning

Nama:

NPM:

Petunjuk:

Beri tanda (√) pada kolom “ya” dan “tidak”, kemudian berikan alasan saudara dengan jawaban yang telah dicentang pada kolom keterangan

No	Question	Yes	No
1	A used learning method is new for me		
2	A applied Learning methods are keep me to motivated		
3	My hands became skilled with applied learning method		
4	A better understand the concept with applied learning methods		
5	My creativity appear with applied learning methods		
6	I feel asleep with applied learning methods		
7	The applied learning method make me confused		
8	I feelafraid during the learning process because there are some observer		
9	A learning method make me boring		
10	A learning method has been applied previously		

Results And Discussion

Lesson Study cycle

Lesson Study was conducted in three step that is Plan, Do (implement), and See (reflects). In other words, Lesson Study is a way of improving the quality of education that never ends (continuous improvement).

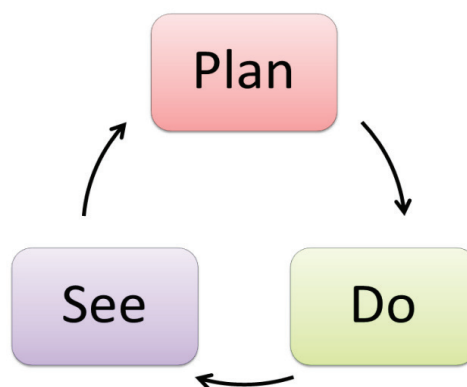


Figure 1.

a cycle of learning *Lesson Study*

Plan

Collaboratively, a lecture planning a learning base on student-centered learning in the classroom. A plan aims to produce lesson plan are believed be able to effectively and awaken active participation of learners in learning. The teachers belonging of the TIM Lesson Study collaborate to arrange a lesson plan that reflects the student-centered learning. The steps in the implementation of the plan include: 1) Analysis the needs and problems learning by seeing the scope of the basic competencies, how to teach a students, lack of facilities solutions and vehicle of learning, 2) establish a observation procedures including instrument research, and 3) simulation lesson plan.

A Tim lesson at study biology education program STKIP Hamzanwadi Selong involving nine person with details that seven lecture as observer, one lecture as internal monitoring and evaluation, and one person as a cameraman. Plan held on October, 22 2016. At the time plan, all devices that have been made are presented, consists of: syllabus, unit lecture event, student

worksheets, media of learning to be used on the content. The contents discussed are the patterns of heredity includes a cross between two individuals with two different trait (dihybrid), and a cross between two individuals with three trait (trihybrid) with problem solving methods, using propeller blades patterns of heredity from cardboard used as a medium of learning. At the time to prove a cross, the students assisted with media learning that has been provided and verification by using the punnet table.



Figure 2.

Plan activity in study biology education program room

Do

A lecturer in implement student-centered learning, while another lecture observing students' learning activities. Do is implementing the lesson plan that have been formulated in the previous step. The step in Do include: 1) observation activities conducted by other team Lesson Study, 2) The focus observation directed at the activities of learners, 3) Observers should not disturb a learning activities, 4) Observer not to be discussed during the learning process, and 5) not to evaluate teacher performance.

Do, held one meeting with the allocation of 3 x 50 minutes, according the schedule of lectures on October, 26 2016. At the time Do, team lesson study doing out their task as an observer and a cameraman. All lecture observing learning process suitable instrument learning that have been discussed at the time plan. At the moment Do, some students do not use of media learning which has prepared. Only use a punnet table that have been made, and there are still not understand how to crossing the marriage primarily on parental. Students look seriously attempted crossing by using the punnet table.

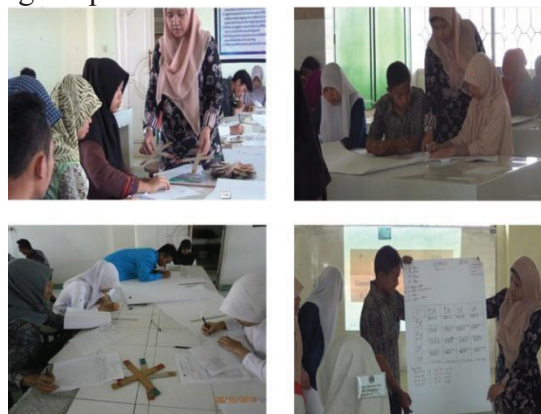


Figure 3.
Do process

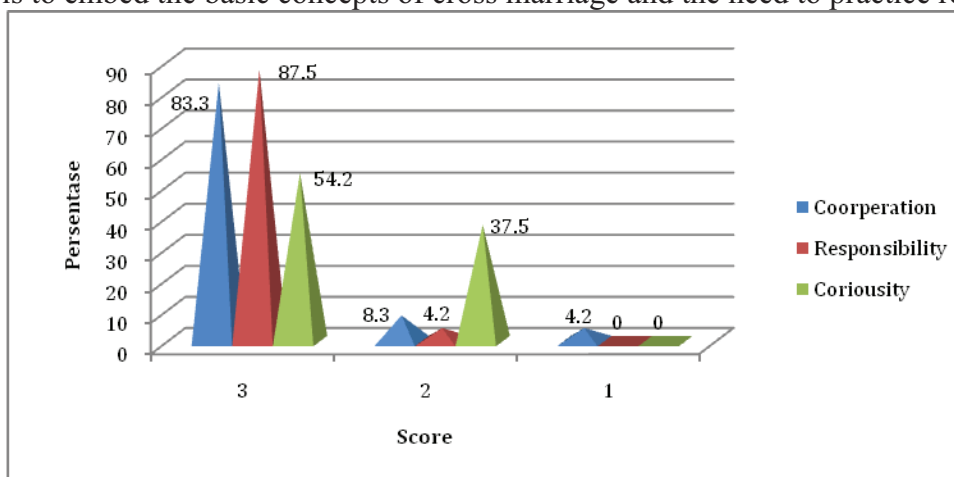
See

See is the reflection after learning process, see immediately implemented after finished teaching. The objective See is to correct the learning process has been implemented, observers suggested a variety of valuable experiences and findings were analyzed by lecturers propound various experience and the findings were analyzed by models lecturer and be used to further improve teaching quality. With the principle of collegiality, collaborative reflects the effectiveness of learning and mutual learning. A stepreflection (See) are finding the advantages and disadvantages of learning process. Steps in reflection include: 1) conveying the impression during the learning process, 2) Observer submit a comments or suggestions, and 3) Self-reflection.

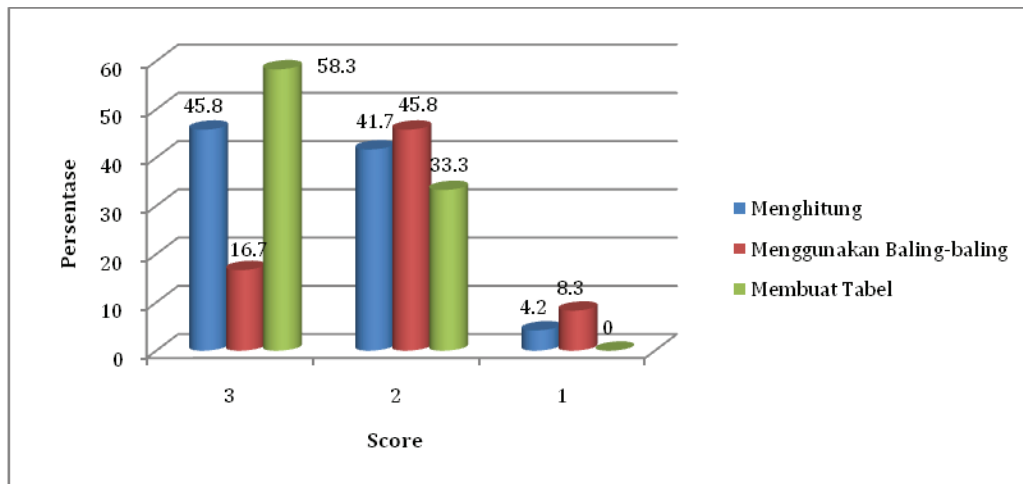


Figure 4.
See process

A result of reflection, obtainableresults an Attitude: student active in trying to prove dihybrid and monohybridcross using punnet table, this is accordance with the score obtained that is 54.2% of curiosity indicator. Skill: Student less used of media learning, some students harness to lower the parental from the cross (see from a score of 3 and 2 with nearly the same result; score 3 (45.8%) and 2 (41.7%). More results details for each the attitude indicator is presented in chart 1 and chart 2. A suggestion from internal monitoring and evaluation person and observer is to embed the basic concepts of cross marriage and the need to practice repeatedly.



Graph 1. Acquisition percentage attitude indicator observations during the learning process



Graph 1.
Acquisition of Skill indicator percentage of observations during the learning process

Impact of lesson study

Lecturer model

Lecturer models knowing the factors that may affect the learning process.

Lecturer models can improve teaching skills using strategies that lead to student centered learning.

Lecturer models more intense to guided and facilitate the students during discussion.

Lecturer model is more confident in teaching.

The relationship psychologically between lectur and students more closer

Communication between lecture and students more intense and active.

Observer

The experience of observer during observing learning process is to get a sense of cooperation and responsibility in their works.

Observer learn about better learning from lecturemodels appearance. Usman (2000) stated that three tasks teachers as a profession include educating, teaching and training.

(1) educate means to continue and develop the values of life, (2) teaching means to continue and develop science, (3) training is about developing skills students.

Student

A lesson study system get a positive response from all students, they are not nervous although observer seeing all of them in learning, more motivated to follow lectures, the quantitative results are presented in graph 3. Communication between them more active and aggressive in sense that they are corrected opinion when forward the discussion results. Students more reticent to talk with other friends in the classroom.

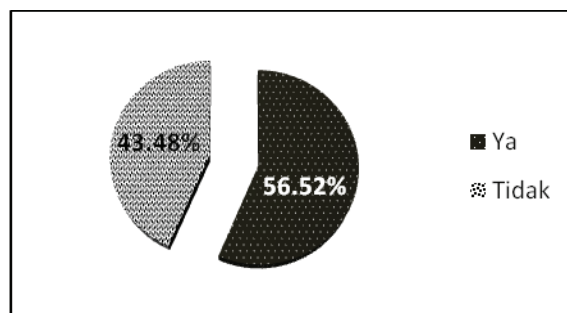


Figure 3:
The response of students to the pattern of lesson study

Lesson Study is a systematic process that is used by teachers in Japan to test the effectiveness teaching in order to improve learning outcomes (Garfield, 2006). Lesson study is a model professional founding for educators through assessments and ongoing collaborative learning based on the principles of collegiality and mutual learning to build a learning community (Hendayana, 2007; Ibrahim, 2013).

By implementing Lesson Study in learning, will be able provide an opportunity for lecture to learning how to learn and learn about teaching. Suratno (2009) stated that the implementation Lesson study is believed to improve the basic knowledge in learning, improving the professionalism of educators, and build a learning community. The same is expressed by Copriady (2013) that the expansion of the learning process through the implementation Lesson study can be used as a professional development program. Perry and Lewis (2008) suggest the implementation of lesson study as a learning problem-solving solution, because the lesson study can facilitate whatever method is used (Lewis, 2002). A model founding lesson study can be used as a model for teaching founding for lecture toward students (Rustono, 2008). Lecturers need to think about lesson study as a way to improve the quality of teaching and improvement of learning process for students (Yoshida, 2012). Each lecture have advantages and disadvantages, there is no perfect learning process, so that lecturers must learn in order to teach better.

Conclusion

Implementation of lesson study in biology course, particularly of heredity patterns content very useful, motivation and activities student looks different from previous lectures. Attitude and skill is honed, a positive experience gained either from lecture models, observer and the students as actors of lesson study.

Daftar Pustaka

- Aunurrahman.(2011). *Belajar dan Pembelajaran*. Bandung: Alfabeta.
- Copriady, Jimmi. (2013). The Implementation Of Lesson Study Programme For Developing Professionalism In Teaching Profession. Published by Canadian Center of Science and Education. *Asian Social Science*. 9 (12): 176-186.
- Garfield, J. (2006). **Exploring the Impact of Lesson Study on Developing Effective Statistics Curriculum**. (Online): www.stat.auckland.ac.nz/~iase/publication/11/Garfield.doc. diakses tanggal 19-6-2006
- Hendayana, S., dkk. (2006). *Lesson Study: suatu Strategi untuk Meningkatkan Keprofesionalan Pendidikan* (Pengalaman IMSTEP-JICA). Bandung UPI Press.
- (2007). Studi Peran IMSTEP Dalam Penguatan Program Pendidikan Guru MIPA Di Indonesia. *Educationist*. Vol 1 (1): 28-38.
- Ibrohim.(2013). **Implementasi Lesson Study Untuk Meningkatkan Kompetensi Pendidik, Kualitas Pembelajaran di Sekolah dan LPTK Serta Perkembangannya di Indonesia**. Makalah disajikan dalam Workshop Sosialisasi Lesson Study Program LEDIPSTI Sekolah Tinggi Keguruan dan Ilmu Pendidikan Hamzanwadi Selong, 19-20 April 2013
- Lewis, C. (2002). *Lesson study: A handbook for teacher-led improvement of instruction (Brief guide to lesson study)*. Philadelphia: Research for better schools. Online. www.lessonresearch.net/briefguide.pdf.
- Perry, R & Lewis, C. 2008. What Is Successful Adaption Of Lesson Study In The US? *J. Educ Change*. (10):365-391.
- Rustono, W. S. (2008). Meningkatkan Kemampuan Mahasiswa Menerapkan Strategi Pembelajaran Melalui Lesson Study Di Sekolah Dasar. *Jurnal pendidikan dasar*. (10):1-7.

- Suratno, T. (2009). *Toward a Fruition of Lesson Study in Indonesia: The case of technical cooperation between Faculty of Mathematics and Science Education (FOMASE) UPI and Japan International Cooperation Agency (JICA) 1*. Proposed to the Committee of International Symposium the Launching of Center for Research on International Cooperation in Educational Development (CRICED) Indonesia University of Education (UPI). New Paradigm of Education for Improving the Quality of Life. Bandung, August 18-20, 2009.
- Yoshida, M. (2012). Mathematics lesson study in the United States: Current status and ideas for conducting high quality and effective study. *International Journal For Lesson And Learning Studies*. 1 (2): 140-152.

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