

## EVALUATION OF ASPECTS WHICH SUPPORT THE PRACTICE OF TEACHING FOR STUDENTS

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*Teaching practice is a compulsory component for students in the Department of Biology Education. Courses that support the implementation of this teaching practice are a) Microteaching (MT), b) Teaching and Learning Strategies (TLS) and c) Development of Biology Teaching Program (DBTB). In the implementation of teaching practices, every student is mentored by a lecturer (LM) and a teacher (TM). Prior to the implementation of teaching practice in schools, the opportunity is given to the students to perform simulations on campus. This study aimed to determine how effectively the above aspects support the implementation of the teaching practice as well as how the depth of material that has been given supports the practice of teaching and the role of teaching practice in providing teaching experience for students. This research was a descriptive study that involved 77 students. Data were collected using a questionnaire, the responses to which were analysed by a quantitative descriptive technique. Results showed that more than 75% students' responses either strongly supported or supported the aspects MT, TLS, DBTB, TM and LM respectively. Similar levels of support were given for the depth of the material aspect and the role of teaching practice in providing teaching experience for students. However, the simulation implementation aspect was strongly supported or supported by less than 55% students.*

**KEYWORDS:** Microteaching, Simulation, Teaching Practice, Teaching and Learning Strategies

### INTRODUCTION

The teaching practice is a subject that must be taken by students in Department

of Biology Education. This event is held at the junior high school or the senior high school. The teaching practice is an activity to provide opportunities and experiences for students as prospective teachers to apply the theory they have gained into practical knowledge in the classroom. With this activity they will gain experience in terms of knowledge, skills, attitudes, and can recognize more clearly the school environment with all its dynamics. The activities of teaching practice cannot be replaced by other forms of teaching practice, as microteaching etc. Before taking the practice of teaching the students should have passed the supporting courses such as Teaching and Learning Strategies (TLS), Development of Biology Teaching Program (DBTP), and Microteaching (MT).

TLS is one of the subjects that equip students with competence pedagogy. Pedagogical Knowledge (PK) is one of the competencies required of a teacher. PK is teachers' deep knowledge about the processes and practices or methods of teaching and learning. They encompass, among other things, overall educational purposes, values, and aims. This generic form of knowledge applies to understanding how students learn, general classroom management skills, lesson planning, and student assessment. It includes knowledge about techniques or methods used in the classroom; the nature of the target audience; and strategies for evaluating student understanding (Koehler & Mishra, 2009). Topics covered in TLS course are: teaching methods, approaches, media, as well as innovative methods in learning. System of lectures for this course consists of presentations and simulations to practice innovative teaching methods. With these courses, students are expected to know a variety of methods, as well as having the ability to choose the method and appropriate learning approach when implementing the learning process. With the provision of material that has been gained from the course of teaching and learning strategies (TLS), it is expected that the students are capable enough to carry out the learning process during teaching practice.

DBTP is another course that equips students with the pedagogical competence. This course discusses about how to make a lesson plan, starts from formulating learning goals, plan the student's learning experience, determine methods and instructional media, and plan evaluation. In the lesson plans created by teachers, it is determined what teaching methods are to be used, as per the characteristics of the teaching materials that will be delivered to students, as well as how the learning steps are to be implemented. Thus, the lesson plan is a guide for teachers to implement the learning process in the classroom. Good learning process would have to start from a good lesson plan. Professional teachers are required to have the ability to make a lesson plan and implement learning plans with a variety of innovative instructional strategies

(Ahmadi, 2012).

In addition to SBM and P3B subjects, Micro teaching also equips students with competence pedagogy. Micro teaching (MT) is one approach or method used to develop the teaching skills in a "micro" or simplified way. This simplification is related with each component of learning, for example in terms of time, material, number of students, the type of teaching basic skills practiced, the use of methods and media, and other elements of learning (Susantini et al., 2014). The material covered in this course is about teaching basic skills, such as opening and closing skills, skills for providing reinforcement, variations in teaching, and others. In this course every student performs simulations of about two to three basic teaching skills conducted through peer teaching in a micro situation.

In the implementation of teaching practice, every student is mentored by a lecturer (LM) and a teacher (TM) from schools where students carry out practice teaching. TM provides good guidance in the lesson plan and the implementation of learning in the classroom, as well as LM. During the implementation of the practice of teaching students carry out three exercises, every workout is observed and assessed by TM. After doing the exercises three times the students appear for one exam with supervision and assessment of TM and LM. Before carrying out teaching practice in schools, every student is required to carry out simulations on campus with LM guidance. This is done to convince the lecturers and students, that students have sufficient ability and are ready to carry out teaching practice in schools.

This study aims to determine the role of each of the supporting aspects of teaching practice, i.e. TLS course, DBTP, MT, and implementation of simulation in support of the implementation of teaching practice. Additionally, we wanted to know how the role of TM and LM in the implementation of teaching practice, how the depth of the material (Biology) has been given on campus in support of the implementation of teaching practices, as well as the role of teaching practice in providing teaching experience for students as a prospective teacher.

## RESEARCH METHODOLOGY

This research is a quantitative descriptive study, and all students of Biology Education program that have been through the course of teaching practice were a part of the study. The sample consisted of 77 students, all of whom have passed all supporting courses, these are teaching and Learning Strategies (TLS), Development Biology Teaching Program (DBTP), and Microteaching (MT). The implementation of the teaching practice of each student is under the

guidance of a lecturer, and a teacher of the school where the student is carrying out the teaching practice. Before implementing the practice of teaching in the school, each student is required to carry out one simulation lesson on campus. Simulations are conducted by peer teachers under the guidance of the lecturer. The instrument to collect data was a questionnaire, and then the data were analysed by descriptive quantitative analysis.

## RESULTS AND DISCUSSION

Support for each aspect of the implementation of teaching practice, can be seen in Table 1.

Table 1

Support for Each Aspect (%) of the Implementation of Teaching Practice.

Aspect	Strongly Support	Support	Less Support	No Support
Teaching and Learning Strategies (TLS)	44.16	54.55	1.30	0
Development of Biology Teaching Program (DBTP)	33.77	50.65	14.26	1.30
Microteaching (MT)	42.86	41.55	6.49	9.09
Teacher Mentor (TM)	63.64	29.87	6.49	9.09
Lecturer Mentor (LM)	33.47	42.86	18.18	5.68
The Depth of Materials (Biology)	45.45	44.16	10.39	0
Simulation	28.57	25.97	24.68	20.78
The Role of Teaching Practice for Student	85.71	12.99	1.23	0

The results showed that the subjects of TLS, DBTP, and MT, all three expressed support/strong support, with the total percentage for each course being above 84%. Teaching and Learning Strategies (TLS) is a subject which equips students with pedagogical competence. According to Koehler and Mishra (2008) there are three main components of knowledge that should be possessed by a teacher, the content (material), pedagogy, and technology. Furthermore, Koehler and Mishra (2009) define Pedagogical Knowledge (PK) as teachers' deep knowledge about the processes and practices or methods of teaching and learning. A teacher with deep pedagogical knowledge understands how students construct knowledge and acquire skills and how they develop habits of mind and positive dispositions toward learning. As such, pedagogical knowledge requires an understanding of cognitive, social, and developmental theories of learning and how they apply to students in the classroom. Referring to the statement of Koehler and Mishra, a teacher must

have the ability to select and deploy an approach and appropriate learning methods as part of a pedagogical competence, in order to create a fun learning environment, so that learning can take place with effectiveness. This learning approach is not good, as it will lead to poor learning outcomes as well (Priyayi et al., 2012). Mastery and ability in choosing and applying methods, approaches, and learning strategies are competencies that must be mastered well by a teacher. It seems that the material that has been given in the course of TLS is sufficient to equip students in the implementation of teaching practices. Students had no difficulty in selecting and implementing methods of learning, because they already know and understand, even simulate a variety of teaching methods in the course of TLS.

The number of students under the category of strongly support and support the course of Development of Biological Teaching Programs (DBTP) is also quite high at 84.42%. DBTP is a subject which equips students (prospective teacher) about how to make a lesson plan, before implementing the learning in the classroom. With a comprehensive lesson plan, the learning process becomes more focused and organized, so the learning process occurs effectively and efficiently. A good lesson planning is the first step that must be done by the teacher to ensure effective learning in the classroom. With a comprehensive learning plan that has been made, the teacher will have clear goals and measures when implementing the learning process in the classroom. The purpose of education can be achieved in the presence of an atmosphere of learning and a well-planned learning process (Prasetyo et al., 2012). Lesson plan created by a teacher is the embodiment of the teacher's ability to integrate knowledge with pedagogical content knowledge (PCK). PCK is a type of knowledge that is unique to teachers and is based on the manner in which teachers relate their pedagogical knowledge (what they know about teaching) to their subject matter knowledge (what they know about what they teach). It is the integration or the synthesis of teachers' pedagogical knowledge and their subject matter knowledge that comprises pedagogical content knowledge (Cochran, 1997). According to Shulman (1986; 1987) the PCK is the main component of teaching expertise. According to Anwar et al. (2012) teachers should continue to develop the process of teaching in the classroom, and a prospective teacher should always continue to train the ability in designing learning outcomes by understanding the PCK. With the ability to create a learning plan that has been given in the course of DBTP, integrated with the ability to select the method and learning media, which have been obtained in the course of TLS, students are not difficult to create a learning plan during the implementation of the teaching practice, this will greatly help facilitate the teaching practice and raises their confidence.

In addition to courses TLS and DBTP, microteaching course also is a subject which supports the implementation of the teaching practice. The number of students under the support and strongly support category for the course are 84.41%. Microteaching is a subject which discusses teaching basic skills that should be possessed by a teacher, such as skill of opening a lesson, closing the lesson, explaining, asking questions etc. Teaching job as a profession certainly requires special skills, starting from lesson planning to the implementation of these plans in the classroom. This professional work must be supported by a specific competence, in this case is the competence pedagogy. Microteaching is one of the subjects, which also strengthens the pedagogical competence, which can enable the prospective teacher to have good teaching skills. Teaching will go well and interesting for the students if teachers master the basic skills of teaching, including classroom management. Data from this research shows, that students have learned a lot through microteaching and have developed skills to improve their teaching practice.

The role of the Teachers Mentor (TM) in guiding students participating in teaching practice is very important as 93.51% of the students expressed support and strong support, while the role of the Lecturer Mentor (LM) was supported and strongly supported by 76.33% of the students. When the students carried out teaching practice, they interact a lot and got a briefing from the TM. In the implementation of this teaching practice, each student gets a chance to carry out the exercise three times and takes an exam one time. While the presence of LM only at the time of the exam, the intensity of them to interact with a TM is more than the LM. In addition, a meeting of students with TM outside of teaching hours is certainly a lot more, this is done during school orientation, distribution of learning materials, preparation of lesson plans, determining the schedule, and others. These activities are the responsibility of TM and does not involve the LM. The role of the TM is enormous in the implementation of teaching practices for students. This has also been reported by Sudarisman (2012), who reported that 96.30% of students were satisfied with the support from TM. Although TM is a new figure known to the students, but their role in providing support for the implementation of teaching practice is very large. Each TM can provide appropriate solutions to students when they encounter problems during implementing the learning in the classroom and outside the classroom, as it is because every TM understands and knows the characteristics of the students and the school environment better than the LM.

The quality of Biological material which has been given to students, is supported and strongly supported by 89.61% students participating in teaching practice. This means that the material that has been given equips them

to lead the profession as a teacher of Biology, both in high school and junior secondary schools. Mastery of the material by a teacher or prospective teacher is a very important aspect. A teacher must have a good mastery of the material as a content that will be taught to students, Koehler and Mishra (2009) stated that the Knowledge of content is of critical importance for teachers. As Shulman (1986) Noted, this knowledge would include knowledge of concepts, theories, ideas, organizational frameworks, knowledge of evidence and proof, as well as established practices and approaches toward developing such knowledge. For a teacher mastery of the material / subject will be taught and how to teach it is of equal importance. Mastery of a good concept is not just to know or understand the concept, but also includes the ability to explore the attributes of the concept and its relationship to other concepts (Palmer, 2009; Schawarz et al., 2009). This capability will determine the students' ability to perform analysis to find the essential concepts. Determination of essential concept will also determine the appropriate learning experiences (Schonborn & Bogeholz, 2009). With a good understanding of the material, it will greatly help the students in carrying out the practice of teaching. They will have no fear or doubt, but they will be confident in conducting teaching practice. Sudarisman (2012) has also reported that from its search results to students participating in teaching practice, it is known that students are not ready to implement teaching practices because by several factors, one of which relates to the mastery of teaching materials.

Implementation of simulation held on campus before the implementation of teaching practice in schools has less support compared with other ancillary aspects. The number of students who stated strong support and support for these aspects is 54.54%. The remaining states are less supportive and not supportive with almost equal shares. Support simulation of the teaching practice is relatively small if compared with the other aspects. This is probably due to the fact that simulations were carried out no different from teaching exercises that have been implemented in other subjects, such as microteaching. However, the simulation is important to be implemented by each student before they carry out teaching practice, because it is an exercise that gives them an opportunity to teach properly, although it is still done through peer teaching. Teaching exercises performed through simulated as well as real teaching, help apply all the basic skills taught as a unified whole, to deliver the learning materials. This is in contrast with the practice of teaching in the subject of microteaching, where each student practices only one basic skill. Simulation is closer to the real learning and is undertaken by teachers in the school or teaching practice, and thus remains an important aspect to be done before they carry out their teaching practice. Based on this fact, it is recommended that each Lecturer Mentor (LM) to carry out simulation, so that it remains interesting and

challenging for students. In study activities of students, they should work collaboratively, so that they can give a good feedback to each other when designing the lesson plan, as well as during the implementation of the design. If the simulation is packed with interesting approaches, students will be more interested to follow and give great support to the implementation of teaching practices.

The role of teaching practice for students to provide experience in the organization of learning in the classroom, expressed support and strong support by 98.70% of the students, while the rest expressed less support, and no student expressed support for this aspect. This means that teaching practice is an activity that is meaningful to students as future teachers. Implementation of teaching practice actually provides practical experience for students, ranging from developing teaching preparation, implementing them in the classroom, as well as manage learning within classroom situations. From this activity the students actually have experience in solving the problems of learning that occurs in the classroom. Of course, it is different from teaching practice that has been done on campus either on the course TLS, MT, and simulation. In the exercise phase, the teaching is done in peer teaching way so that the classroom atmosphere is more easily controlled, while the implementation of teaching practices that are conducted in schools, learning is done in a real-life situations and confronted the students with diverse characters. Thus, students as prospective teachers actually gain experience in dealing with students and classes that have a very dynamic situation. This is certainly very important for students as prospective teachers, so that they have experience in interacting with students so that they finally have the courage to carry out the learning process in the classroom. In the process of learning, the classroom situation will affect the performance of teachers therefore exposing students as prospective teachers to real classroom situations is very important.

In addition to providing real experience in implementing the learning in the classroom, teaching practical activities is also very important to provide mental experiences for students. On the implementation of the teaching practice students interact with all members of the school, students, teachers, and administrative staff. This will give them the opportunity to get to know the atmosphere of the school in a more real way with all its dynamics and provide them experiences they never acquired on campus.

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