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Difficulty analysis of biology education students in learning microteaching at Universitas Labuhanbatu

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Abstract

Education is a field that is very important for the future and influences other fields. One of the functions of education is to develop skills and abilities and form a better sense of dignity in the context of educating the life of the nation. This study aims to be able to see and know the difficulties faced by biology education students in microteaching lessons at Labuhanbatu University. The method used in this research is descriptive-qualitative. The sample in this study was made up of all fifth-semester biology education students. Data collection techniques included questionnaires and interviews. The results of the research that has been carried out regarding the analysis of the difficulties of biology education students in microteaching learning at Labuhanbatu University are: use of learning methods (42.61%), mastery of material (42.15%), skills in teaching (52.67%), skills in opening learning (54.36%), readiness in learning (54.70%), skills to ask (46.79%), skills to close learning (50.81%), and skills to explain (40.81%). Microteaching is very important for students in preparing themselves as prospective teachers and adding insight and knowledge.

Abstrak

Pendidikan merupakan suatu bidang yang sangat penting bagi masa depan untuk mengembangkan keahlian dan kemampuan serta membentuk generasi yang lebih baik dalam rangka mencerdaskan kehidupan bangsa. Penelitian ini bertujuan untuk dapat melihat serta mengetahui kesulitan yang dihadapi mahasiswa pendidikan biologi dalam pembelajaran *microteaching* di Universitas Labuhanbatu. Metode yang digunakan dalam penelitian ini yaitu kualitatif deskriptif. Sampel dalam penelitian ini yaitu seluruh mahasiswa pendidikan biologi semester lima, tehnik pengumpulan data berupa angket dan wawancara. Adapun hasil penelitian yang telah dilakukan mengenai analisis kesulitan mahasiswa pendidikan biologi dalam pembelajaran *microteaching* di Universitas Labuhanbatu yaitu: penggunaan metode pembelajaran (42.61%), penguasaan materi (42.15%), keterampilan dalam mengajar (52.67%), keterampilan dalam membuka pembelajaran (54.36%), kesiapan dalam pembelajaran (54.70%), keterampilan bertanya (46.79%), keterampilan menutup pembelajaran (50.81%), dan keterampilan menjelaskan (40.81%). Pembelajaran *microteaching* sangat penting bagi mahasiswa dalam mempersiapkan diri sebagai calon guru dan menambah wawasan dan pengetahuan.

A. Introduction

Education is a crucial field for the future that influences other disciplines. In the context of educating the life of the nation, one of the functions of education is to foster the development of skills and abilities as well as a higher sense of self-respect (Jayanti et al., 2022). Especially in the current digital era, a biology teacher or prospective biology teacher must be able to comprehend not only content, expertise in designing learning and teaching strategies, and teaching and learning models, but also the phases of the learning and teaching process (Turmuzy & Kurniawan, 2021). Basic teaching skills can determine the quality of the learning process that will be carried out by students or prospective teachers. Students not only understand theoretically basic teaching skills but must also carry out teaching and ongoing exercises through existing courses (Nurmasiyah, 2021).

Problems in teaching and learning are intertwined with a teacher's responsibilities, so aspects of competence that teachers must possess have become a standard of evaluation in that community. The low quality of learning caused by an teacher's demands, the lack of facilities and infrastructure in schools, and the incompetence of teachers all contribute to the inefficiency of the learning process. In addition, teachers must be able to provide their students with the finest possible education. Even though attaining educational objectives is not as simple as turning the palm of your hand, it requires a lengthy procedure and a determined teacher (Hidayah, 2018).

As is the case with microteaching learning, this is a crucial lesson in the Biology Education Study Program at Labuhanbatu University, where students are required to engage in both direct learning and teaching practice. In this instance, the teacher assumes that students are capable of independently designing a learning device (Kurniawan & Masjudin, 2018).

In every tertiary institution in Indonesia, students are required to prepare themselves as prospective teachers who must increase their knowledge, insight, and teaching skills. The biology education study program is one way to follow a process in the implementation of microteaching, or microteaching, so that the teaching faculty is more prepared and resilient in addressing various problems in education (Nazariah et al., 2022).

This is an activity and the first activity of a teacher; through this activity, the teacher must interact with a large number of students in order to become an authoritative and respected human figure in the eyes of students. Prospective teachers must demonstrate their finest performance,

minimize their weaknesses, and capitalize on their assets in order to mature into teachers (Apriani et al., 2020). The ability to create and maintain optimal learning conditions for the achievement of learning objectives is essential for a biology teacher. When student teacher candidates conduct microteaching in class management, discipline is the indicator that needs improvement. Candidate teachers have been unable to instill in students a disciplined disposition (Irawati, 2020).

Microteaching is learning and teaching activity that helps prospective teachers develop their teaching skills and serves as a training medium for interacting with students. Before instructing an actual class, microteaching provides the opportunity to teach a small class (Rahayu & Sulistyawati, 2022). Teaching is one of the teacher's responsibilities in an endeavor to impart knowledge, impart skills, and shape character. The ideal teacher is one who is able to become a qualified learning resource, facilitator, motivator, demonstration, and a dependable class manager. Good competence is required to conduct teaching activities so that the learning process can attain its objectives (Khaerunnisa & Muqowim, 2020).

Microteaching is one of the required learning programs for all teacher training students at universities in Indonesia, including Universitas Labuhanbatu. With this learning process, it is hoped that students who wish to become future teachers will acquire both theoretical and practical teaching skills (Nazariah et al., 2022). So that the low competence and professionalism of prospective teachers will have an effect on the gap between what is expected and actual progress in enhancing the quality of education nationally. This indicates that teachers, particularly those in tertiary institutions, must increase their preparedness to teach (Isrokatun et al., 2022).

All teachers, regardless of their level of education, face the difficulty of developing an effective, decent, and efficient learning environment. The selection of appropriate learning media that is adapted to the conditions of students and the learning environment is an effort to address these obstacles (Rachmadyanti, 2021). Based on the aforementioned theory, it can be concluded that in order to implement a plan in the microteaching learning process, students must be able to manage classes, have skills in teaching and guiding, and use methods in learning. Furthermore, students continue to face obstacles when entering subjects. According to the opinion of Pratiwi & Harahap (2022), students when (entering the course material) students are enthusiastic in

learning because some of the students say that entering the course during the learning implementation is one of the obligations in lectures as is the case with microteaching learning that students think learning is the responsibility of being a student, will but there are some students who are less enthusiastic in the learning process because of a lack of motivation in learning and so on. It can be seen that from the practice in teaching carried out by students that the average is categorized as sufficient.

On the subject matter side, students also find it difficult and understand the constraints on the material because students prefer to listen to an explanation accompanied by direct examples (Khaerunnisa & Muqowim, 2020). This research has never been conducted at Universitas Labuhanbatu for Biology Education Students, so based on the background on the problems above, it encourages researchers to conduct research under the title "Difficulty Analysis of Biology Education Students in Learning Microteaching at Universitas Labuhanbatu". This study also aims to be able to see and know the difficulties faced by biology education students in microteaching lessons at Universitas Labuhanbatu.

B. Material and Method

This research was conducted in November for the 2022/2023 school year at Labuhanbatu University for fifth semester biology education students. This study employs a descriptive qualitative approach according to Sugiyono (2014). The population taken into this study were all biology education students at Universitas Labuhanbatu. The sample in this study were 43 fifth-semester biology education students at Universitas Labuhanbatu.

The sampling technique used was purposive sampling; the researcher determines the sampling method according to the research objectives so that it was expected to be able to answer the researchers' problems. The data collection technique was carried out by giving questionnaires and interview to students. The questionnaire consists of several indicators, namely: Use of Learning Methods, Mastery of Materials, Skills in Teaching Skills in Opening Learning, and readiness for learning. All of these indicators were contained in the questionnaire and are carried out individually online using Google Forms. The questionnaire distribution technique was carried out by distributing the Google Form list to research students for later analysis.

Table 1 Indicator Statement of Point Value

Positive (+)		Negative (-)	
Alternative answer	Score	Alternative answer	Score
Strongly agree (SS)	5	Strongly agree (SS)	5
Agree (S)	4	Agree (S)	4
Doubtful (RR)	3	Doubtful (RR)	3
Disagree (TS)	2	Disagree (TS)	2
Very Disagree (STS)	1	Very Disagree (STS)	1

The questionnaire contained 60 statements; after being validated, it became 40 statements. The statement questionnaires for each indicator were then distributed to students, and the results of these statements were calculated for each statement and given a point value. The point value for each statement was as Table 1. After being given a point value for each statement indicator, then the statement value is calculated in the form of a percentage. To support the data, the results of the interviews were analyzed descriptively.

C. Results and Discussion

Based on the research results of the that has been done, it has been found that the results obtained regarding the analysis of the difficulties of biology education students in microteaching learning at Universitas Labuhanbatu. In research on the indicators above modified from Afdillah et al.

(2022); Aida (2019); Rosali & Singkawijaya (2020). In this instance, it is evident from the outcomes of the acquisition of microteaching practice for biology students that there are still challenges facing biology education students. In terms of students, they must be able to prepare themselves to carry out microteaching, therefore, from the initial activities, core activities, to closing. Before carrying out microteaching, both a teacher and prospective teachers must know the aspects contained in microteaching. In this case, teachers and prospective teachers can understand these aspects and maximize the improvement of specific skills in teaching.

Based on the percentage data (Table 2), to support the percentage data, the researchers also conducted and collected data in the form of interviews with biology education students who were the objects of the research (Table 3). As for

the results of interviews regarding the first indicator regarding the use of learning methods, for students who still experienced difficulties in the method to be taught in microteaching learning and there are still students who did not understand a

learning method related to the material, the results of the value obtained regarding the first indicator are 42.61 %. However, in this case, there are still students who did not experience difficulties with the microteaching learning method.

Table 2 Percentage Value Analysis of the Difficulties of Biology Education Students in Microteaching Learning at Universitas Labuhanbatu

No.	Indicator	Percentage
1.	Use of learning methods	42.61%
2.	Learning material mastery	42.15%
3.	Skills in teaching	52.67%
4.	Skills in opening learning	54.36%
5.	Readiness in learning	54.70%
6.	Questioning skills	47.96%
7.	Closing skills	50.81%
8.	Explaining skills	40.81%

Table 3 Interview Analysis of Difficulties of Biology Education Students in Microteaching Learning at University Labuhanbatu

No	Question	Answer
1	Did you experience difficulties when using learning methods in front of students?	Yes, I experienced difficulties when using the learning method that I used because I felt nervous when I was in front of students.
2	How did you master the material to be taught?	By understanding the material to be conveyed so that it could be realized in the learning process.
3	How did you do in your teaching skills?	My teaching skills were not good enough so that students did not understand what I taught.
4	How did you open up learning?	By doing a prayer together before starting learning and student attendance first.
5	Did you prepare the lesson before starting the lesson?	Yes, there must be proper preparation before the lesson started so that I did not hesitate during the lesson.
6	Did you often ask questions to students in learning or were there students who asked questions during learning?	I often asked students if there was clear material that I taught, or they did not understand, and without being asked questions there were some students who asked.
7	How did you close the lesson in class?	I did not have a separate way to do it because sometimes I was not skilled at closing lessons.
8	How was your skill in explaining the lesson?	In explaining learning I was not good at explaining so that students did not understand what I taught.

According to Sholikhah & Wahidah (2021), learning activities require learning methods that are used to implement plans or designs that are made in real terms. Many kinds of learning methods have been applied. Generally, the learning method used in conveying material to students. In line with opinion of Nurjanah et al. (2020), in teaching, teachers must use learning methods that are appropriate to the development of students so that the material presented can be well received and that students are able to apply it in everyday life.

The second indicator regarding mastery of the material is that there are students who lacked confidence and did not understand the content of the material to be taught during the microteaching

learning process. So, the value obtained from this second indicator is 42.15%. In this case, there are still some students who experienced difficulties, but there are also students who were able to master the material to be taught in the microteaching learning process.

According to Febrian & Fera (2019), Choosing a learning model that corresponds with the nature of the material being taught, selecting an evaluation strategy that corresponds with the nature of the material, the learning process, and the evaluation objectives, and ensuring the clarity of the answer keys are aspects of the device's preparation that have an average level of difficulty for all students. The teacher's ability to explain a subject matter clearly will have a big impact on

how well students understand it. If a teacher is unable to properly and correctly convey the material being taught, there will be a misunderstanding (Irawati, 2020).

The third indicator regarding teaching skills is that there are students who were less skilled at explaining good material during the microteaching learning process, so students asked by questions felt confused about answering these questions, and were less skilled at providing media and educational videos related to the material to be taught. The result of the value obtained from the fourth indicator is 52.67%. However, there are still students who were skilled at providing reinforcement and motivation through microteaching.

According to Irawati (2020), the teaching skills of Universitas Labuhanbatu biology education study program students are in the good category in the aspects of opening lessons, asking questions, and closing lessons. The next good category is in the aspect of class mastery, explaining, and providing reinforcement.

The fourth indicator regarding skills in opening learning obtains a score of 54.36%. There are some students who did not pray together when starting the lesson. However, some of the other students prayed together before starting the lesson, took attendance of the students first and even provided motivation before starting the lesson and reminded students of the previous material.

According to Nurmasyitah (2021), the skills of opening lessons in microteaching can be seen from the students' attention in learning achieved and from the interactions carried out, but the teaching style and use of media in learning are still not optimal. Giving references is achieved, such as mentioning learning objectives and teaching materials discussed in learning, and relationships or linkages are achieved, such as explaining the relationship between the material that has been studied and will be discussed, in accordance with the knowledge and experience of students.

Goes along with it, Christi (2020) stated that it is important for every student who will become a teacher candidate to be able to open the lesson very well because, when opening the lesson, students can know the learning objectives to be studied.

In the fifth indicator regarding readiness in learning, there are still students who were hesitant to prepare things that needed to be done in learning and lacked confidence before starting learning, which were explained to them. So that the results obtain from the value of the fifth indicator are 54.70%. As for students who had prepared the

use of methods in implementing learning, media that supported learning, and strategies that were used in teaching and learning during microteaching lessons,

According to Rosali & Singkawijaya (2020), things that must be considered related to student preparation to take part in PLP, namely: Students need additional time to get materials regarding the process of preparing lesson plans. Students still do not understand the elements of the lesson plan (RPP) and its systematics.

The sixth indicator regarding questioning skills is that there are students who did not like asking questions to students directly or by playing games. The value obtained from the sixth indicator is 47.96%. But there are also students who gave the opportunity to ask questions about the material explained or asked for questions to students.

According to Afdillah et al. (2022), the learning process cannot be separated from question and answer activities either between the teacher and students or vice versa. Therefore, questioning skills are an integral part in order to improve the quality of the process and learning outcomes which are at the same time part of success in classroom management. Asking questions can be interpreted as teaching activities in conveying questions to students in the learning process both basic questions and advanced questions. Asking is one activity that is always there in the communication process.

According to Chera et al. (2022), to see the skills of asking questions by students in microteaching courses starting from giving questions clearly, the questions given can be understood by students, asking in turns and giving students time to think before answering questions.

In the seventh indicator regarding closing skills, there are students who were less skilled at giving conclusions from the material presented and less skilled at saying a prayer together when the lesson was over. From the seventh indicator, the yield value is 50.81%. However, not all students did not convey advice and assignments to students before closing the lesson.

According to Wijarini & Ilma (2017), closing learning activities are activities to end learning activities. What is more important than being an activity to end learning, is to find out the competency achievements of the learning that has been carried out.

In the eighth indicator regarding explaining skills, there were students who could not explain the material properly and did not give examples of the material so that the students did not understand the material presented 40.81%. In this

case there are still students who were able to explain the material well by using the media and giving examples.

According to Gumohung et al. (2021), the skill of explaining in teaching is the verbal presentation of information that is organized systematically to show the relationship between one material and another so that the desired understanding is achieved. In line with those statements, Aida (2019) stated that the number of students who can explain the material demonstrates that students can perform well in terms of their ability to clarify courses. This includes the ability to comprehend learning material, associate learning material with other pertinent knowledge, and integrate fundamental skills by exercising learning material in front of the class.

D. Conclusion

As for the results of the research that has been carried out regarding the analysis of the difficulties of biology education students in microteaching learning at Universitas Labuhanbatu, namely: 1. The use of learning methods obtains a score of 42.61%; 2. Learning material mastery obtains a score of 42.15%; 3. Skills in teaching obtain a score of 52.67%; 4. Skills in opening learning get a score of 54.36%; 5. Readiness in learning obtains a score of 54.70%. 6. Questioning skills obtain a score of 47.69%; 7. Closing skills obtain a score of 50.81%; and 8. Explaining skills obtain a score of 40.81%. With research on student difficulty analysis, we can see that a teacher or prospective teacher in the microteaching learning process must be able to understand and pay attention to teaching matters and be able to pay attention to various aspects of managing the class well. Prospective teachers must also be able to develop teaching skills. And have good enough skills in preparing themselves so that they can be better and more effective and achieve their learning goals to the fullest.

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