

THE USE OF VIDEO CONFERENCES IN MICROTEACHING PRACTICES BY PRIMARY SCHOOL TEACHER EDUCATION STUDENTS

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Abstract

The emergence of the Covid-19 pandemic in the world affects the implementation of the learning in the Microteaching course which requires students to make simulations of learning activities in class. One solution that could be applied to achieve learning targets was using video conferencing. This study aimed to analyze the implementation process of teaching practices using video conference in Microteaching course by Primary School Teacher Education (PGSD) student. This study applied a quantitative descriptive method with microteaching assessment rubric instruments. Quantitative calculations were carried out by calculating the percentage of the total score obtained from each criterion of the microteaching assessment rubric, then converted into qualitative data through the percentage table of learning outcomes assessment criteria. Based on the results, it can be concluded that the student participants could achieve all criteria of microteaching process with good results. The use of learning media became the criterion which most students achieved very good results. It is followed by the criterion of the use of teaching methods, delivering material, and understanding concepts which most students achieved good results. Meanwhile, the criteria of opening, class management, and closing are still in a fair category and must be improved.

Keywords: microteaching; pedagogical competencies; video conference

Abstrak

Munculnya pandemi Covid-19 di dunia mempengaruhi pelaksanaan pembelajaran pada mata kuliah Microteaching yang mengharuskan mahasiswa melakukan simulasi kegiatan pembelajaran di kelas. Salah satu solusi yang dapat diterapkan untuk mencapai target pembelajaran adalah dengan menggunakan video conference. Penelitian ini bertujuan untuk menganalisis proses pelaksanaan praktik mengajar menggunakan *video conference* pada mata kuliah *microteaching* oleh mahasiswa Pendidikan Guru Sekolah Dasar (PGSD). Penelitian ini menggunakan metode deskriptif kuantitatif dengan instrumen rubrik penilaian *microteaching*. Perhitungan kuantitatif dilakukan dengan menghitung persentase jumlah skor yang diperoleh dari setiap kriteria rubrik penilaian *microteaching*, kemudian dikonversikan ke dalam data kualitatif melalui tabel persentase kriteria penilaian hasil belajar. Berdasarkan hasil penelitian, dapat disimpulkan bahwa mahasiswa peserta dapat mencapai semua kriteria proses *microteaching* dengan hasil yang baik. Penggunaan media pembelajaran menjadi kriteria yang paling banyak mendapatkan nilai sangat baik. Diikuti dengan kriteria penggunaan metode mengajar, penyampaian materi, dan pemahaman konsep yang sebagian besar mahasiswa memperoleh hasil yang baik. Sementara itu, kriteria membuka pelajaran, pengelolaan kelas, dan menutup pelajaran masih dalam kategori cukup dan harus ditingkatkan.

Kata Kunci: microteaching; kompetensi pedagogik; video conference

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Introduction

The success of learning in the classroom can not be separated from the role of teachers who master teaching competencies. Law Number 14 of 2005 concerning Teachers and Lecturers, Article 8 states that one of the competencies that must be possessed by teachers is pedagogic competence. In more detail, it is explained in the National Education Standard, article 28 paragraph (3) point a that one of the abilities in pedagogic competencies that need to be mastered by teachers is the ability to carry out learning, which includes the ability to apply basic teaching skills, apply various types of learning strategy models, master classes, and measure the level of achievement of student competencies. Based on these national standards, student teacher candidates need to be prepared carefully so that they can improve their pedagogic competence.

The Microteaching course is one of the mandatory courses that must be taken for prospective teacher students in most universities. This course should be in the form of practical and operational and is an implementation of the theories that have been obtained previously. Not only theories about the field of study are taught, but also educational and learning theories. This course is generally given to 6th or 7th semester students as a prerequisite before carrying out Field Experience Practices. Microteaching is a miniature learning process made with a limited time and number of students (Silalahi, 2020; Yusuf et.al., 2017). Generally, micro teaching activities are carried out for 5-20 minutes with 3-10 students (Agustin, 2017). The form of teaching practice is carried out in a simple way, where prospective teachers are in a limited and controlled classroom environment and only teach one concept by using one or two basic teaching skills. This learning activity is usually carried out offline in a classroom or microteaching laboratory. However, during the pandemic, it is not possible to carry out these learning practices offline, so that learning practices must be carried out online using e-learning in the form of video conference.

The online learning process or e-learning allows interaction between lecturers and students. E-learning process activities require an agreement between lecturers and students to make sure all learning activities run well. The definition of e-learning itself is to provide educational material that is presented using a computer and to deliver the learning material using the web (Donnelly & McSweeney, 2014). The success of e-learning does not only depend on the content of e-learning itself, but also how the process of delivering the material provided by the teacher to students in order to understand the content of the material delivered by the teacher. The current online-based learning model means that online is interactivity between teachers and students even though they are not in one place, therefore with video conference facilities in e-learning will help the learning process conducted, because teachers will be directly involved with students with using video conferencing. E-learning activities generally use forums, where students will wait for comments from the teacher, therefore video conferencing will facilitate the sharing of information carried out by teachers and students (Al-Hudhud, 2016). Based on the background and several previous studies related to micro learning and online learning, the purpose of this study was to analyze the implementation of microteaching practices using video conference by students by looking at the 7 criteria in the microteaching assessment rubric.

Practices in Microteaching course can be a means of learning for students, both before they engage in field practice, or as real teachers later. In the implementation of microteaching, Ardi (2014) obtained results regarding the percentage of aspects of microteaching skills, namely closing and opening lessons (84.94%) in the good category, explaining the material (94.75%) in the very good category, and managing the class (72 ,41%) with good category. Other research

(Kansil & Freddy, 2017) shows that in the implementation of Microteaching practices for the opening and closing aspects are in the good category with an assessment percentage of 84.41%, explaining skills are in the good category (82.40%), and the skill of managing class is in the good category (81.90%). The percentage of components of microteaching performance assessment in other studies obtained the following results: skills in opening lessons (73.2%) in good category, skills in using learning media (78.5%) in good categories, skills in choosing methods (65%) with fair category, explaining skills (75%) in good category, class management skills (60.2%) in fair category, and closing skills (74%) in good category (Agustina, 2019). Some of the research results on the analysis of microteaching activities above provide mixed results with a minimum category of fair.

The form of teaching practice is carried out in a simple way, where prospective teachers are in a limited and controlled classroom environment and only teach one concept by using one or two basic teaching skills. The concept of micro teaching is based on the main ideas (Suryani, et.al., 2018), namely: 1) Learning is real (implemented in the actual form, but has a mini concept with a basic character); 2) training focused on basic teaching skills; 3) using information and knowledge about student learning levels as feedback on the ability of prospective teachers; 4) learning is carried out for students with different backgrounds and based on the intellectual abilities of certain age groups; 5) strict control over the training environment held in the Microteaching Laboratory; 6) an atmosphere of minimal pressure (low threat situation), so that prospective teachers can easily learn teaching skills; 7) a low risk situation, so that students can actively participate in teaching; and 8) retraining opportunities and arrangements for distribution of exercises within a certain period of time are provided so that all participants can get an equal share.

In practice, there are eight basic skills that are trained in microteaching course (Sohibun, et.al., 2017), namely: 1) setting introduction and closure; 2) explaining the material; 3) providing basic variations; 4) giving reinforcement; 5) question building; 6) managing classes; 7) basic teaching the small group; and 8) basic supervising small group discussion. Regarding the internal skills that are trained in the Microteaching course, it can be seen that this course has a fairly high urgency. Educational students should have at least experience in delivering material to facilitate adaptation in the actual classroom (Meutia et.al., 2018). In addition, teaching and learning activities in a simulation class are one of the most effective ways to make students analyze their strengths and weaknesses in learning (ibid). In this analysis activity, it can be seen how well these prospective teacher students will adapt and innovate when they are in the actual educational environment in the future (Darmayenti, et.al., 2019). Given that the mechanism for preparing prospective teachers has been systematically arranged, but the empirical conditions in the field show that there are still many unskilled teachers in carrying out their professional functions. Therefore, an in-depth study and evaluation is needed. One area that can be studied in this case is related to the implementation of the learning process that has been carried out so far.

The online learning process or e-learning allows interaction between lecturers and students. E-learning learning process activities require an agreement between lecturers and students, so that all learning activities can run well. The definition of e-learning itself is to provide educational material that is presented using a computer and to deliver the learning material using the web (Donnelly & McSweeney, 2014). According to Sanjaya (2020) online learning is a learning that utilizes technology or internet networks in the learning process. Rapid technological developments have brought this civilization to the industrial revolution 4.0. We are currently in an era where technology and the internet support various lines of life. The

Covid-19 outbreak suddenly attacked us and all students who had bargained with the use of technology were forced to use it. This drastic change is certainly not easy to accept for some parties, but for now only technology with learning from home is able to become a bridge for the ongoing transfer of knowledge. Several types of applications are quite helpful in online learning activities. This gives rise to advantages and disadvantages in the learning process.

There are several advantages in the online learning process, including more effective time and place because students can directly follow the learning process from home (Simamora, 2020; Lassoued, et al., 2020). In addition, this type of learning also raises awareness in students that the internet can be used for positive and productive things. Therefore, students are trained to better master the information technology that continues to develop (Piccoli, et al., 2020; Pratama, et al., 2020). However, it cannot be denied that there are still some shortcomings in the implementation of the online learning process, including the difficulty for educators to control which students are serious about taking lessons and which are not. In addition, the portion of learning is minimal because it is not possible to have direct interaction with students. In addition, there are difficulties for those who live in locations where the communication infrastructure is still not good and this results in difficulties in accessing the internet because basically not all students have and are able to access the internet.

According to Hyder, et.al. (2007), the definition of video conference is a combination of video and audio in full screen mode. It allows a person to share screens and document camera source input and conduct face-to-face meetings. Video conference works most effectively when classroom learning is controlled remotely (Knipe & Lee, 2002), via a microphone that allows all participants to comment, splitscreen, and multistream video feeds. In addition, video conference is a telecommunications technology in the form of sending audio and video that is used together, which allows several users in different places to interact. Based on the opinions above, it can be concluded that video conference is a technology in the form of a long-distance communication tool that combines video and audio at the same time, which allows one person and two/several people to meet face-to-face in full screen mode or sharescreen mode. In its use, there are several applications that can help online learning activities such as WhatsApp, Zoom, Edmodo, Google Classroom, Google Meet and so on. Some of them are video based which are commonly used for learning activities, including Zoom and Google Meet.

There are already a number of studies regarding the effectiveness of microteaching for preservice teachers (Sen, 2009; Ramesh, 2013; Majoni, 2017) and some of them are utilizing video (Kpanja, 2001; Savas, 2012; Widodo & Rozak, 2016) However, in this study, we are using video conference to fill the gap. Based on the explanation regarding the burning issues of microteaching in online learning process, this paper analyze the implementation process of teaching practices using video conference in Microteaching course by Primary School Teacher Education (PGSD) students.

Research Methods

This study uses a qualitative descriptive method with some quantitative calculations to explain the phenomena that occur in the practice of micro learning by students by using video conferencing in a factual and actual way. The purpose of this method is to make a systematic, factual, and accurate description, picture or painting of the facts, characteristics and relationships between the phenomena studied. The research subjects were students at Elementary School Teacher Education class 2017 at a private university in Bandung with a total of 40 people who took Microteaching course in semester 6. The samples were taken using

purposive data collection techniques. The research was carried out during the research period, which was for 6 months. Data collection techniques were carried out by observation. Observations were carried out during the implementation of the microteaching practice. There are 3 observers for each practice session, namely the lecturer and 2 students who take turns being observers in peer assessment activities, so technically the whole class is involved in observation activities. The instrument used in this observation is the observation sheet of lecturers and fellow students in the form of a checklist rubric. The observation sheet was adapted from the microteaching assessment sheet adapted to online learning.

Based on the instruments used in the process of analyzing the implementation of microteaching for PGSD students, there are 7 criteria, namely: Opening, Teaching Method, Concept Understanding, Learning Media, Class Management, Speaking Skills, and Closing. Rubrics are used to assess the high or low performance scores of each predetermined criterion (Djulia et al., 2020). Each criterion in the microteaching rubric has a scoring scale consisting of: 4 (Very Good), 3 (Good), 2 (Fair), and 1 (Poor). Quantitative calculations using the results of the microteaching assessment rubric by calculating the total score for each criterion, then converted into percentages. According to Yuanita (2019) the change in score to a percentage uses the following formula:

$$SP = RS/SM \times 100\%$$

SP : Score Percentage

RS : Raw Score

MS: Maximum Score

The percentage results are then converted into qualitative data using the learning outcomes assessment criteria adapted from the percentage category in the study in the Table 1 (Kolai et al., 2016):

Table 1. Assessment Criteria of Learning Outcome

Percentage (%)	Predicate
86-100	Very Good
76-85,99	Good
60-75,99	Fair
55-59,99	Poor
≤54,99	Very Poor

Results and Discussion

The practice of microteaching in this course is carried out at the 9th to 15th meetings alternately. Because this course only weighs 2 credits, which is 100 minutes of face-to-face learning, then for each meeting it can only be filled by 2-3 people with a maximum duration of 20 minutes for each student plus 10 minutes for technical preparation. Video conferencing applications used by students are Zoom Meeting and Google Meet. Google Meet is most widely used by students because it is free and there is no limit to the duration of use. Preparation of class conditioning is carried out first by students so that other students who act as elementary students can position themselves according to the context and level chosen by the students. The lecturer and 2-3 other students acted as participant observers and filled in the observation sheet

in the form of a microteaching assessment rubric. Students who acted as observers are students who will appear in the following microteaching session.

Based on Table 2, the criterion with the highest percentage is learning media at 82.69% (good). This shows that prospective PGSD teacher students are good at choosing learning strategies/methods that can direct students to actively learn. The criterion with the second high percentage is speaking skills of 82.051% (good), which means that students also show good confidence when teaching. The criteria for teaching strategies/methods (77.85%), concept understanding (77.564%), and class management (72.436%) are included in the good category. Meanwhile, the opening (62.82%) and closing (62.18%) are included in the fair category.

Table 2. Percentage of Elementary School Teacher Student Microteaching Assessment

Skills	Percentage (%)
Opening	62,82
Teaching Methods	77,85
Concept Understanding	77,56
Learning Media	82,05
Class Management	72,43
Speaking	82,01
Closing	62,18

Based on the data obtained, prospective Elementary School Education teacher students are quite good at opening section. Some of the indicators assessed in the opening section are the ability to attract students' attention before teaching, the ability to convey affective, cognitive, and psychomotor learning objectives, the ability to motivate students, and to review learning and relate it to the learning being delivered. Most student teachers can attract other students' attention before teaching. However, some student teachers have not been able to provide full focus through learning objectives to the students, lack motivation at the beginning of learning, and lack in providing reviews related to the conducted learning. Through observation notes, it is seen that student teacher candidates provide reviews or questions to students, but the reviews are less related to the learning materials being taught and the reviews provided are less in-depth. It was the evidence that the student teacher candidates had not fully conveyed the learning objectives, both from the cognitive, psychomotor, and affective domains (Naffziger & Fawson, 2013).

It is important for every teacher to be able to open the lesson very well because in this section, students can get the learning objectives to be achieved. Sanjaya (2015) said that the learning objectives are competencies or skills that are expected to be possessed by students after they carry out the learning process. Before entering the core activities, students need to know the competencies or skills that need to be developed through the learning carried out. This can also help students to be able to do self-evaluation after learning ends. Prastowo (2017) adds that the formulation of learning objectives becomes the accountability of teacher performance and encourages teacher commitment to creating interesting, effective, and efficient learning experiences in achieving learning objectives. Therefore, learning objectives need to be conveyed to each student at the beginning of learning so that learning can be more directed and effective.

Elementary School Education teacher candidate students are considered good in choosing learning methods. Sutikno (2009) said that learning methods are ways of presenting subject matter carried out by educators so that the learning process occurs in students to achieve goals. Based on the data obtained, most of the student teacher candidates have actively involved

all students through two-way learning methods. Some students use inquiry learning which can make students active in answering questions. Most of the students also seem proficient in accommodating the diversity of students' learning styles, both audio and visually through learning media. Most of the students have also been able to develop an attitude of cooperation and mutual respect among students through the group assignments given. A small number of students need to explore teaching strategies so that they can bring effective learning to students, especially in the online learning process.

The indicator that still needs to be improved in the selection of teaching strategies is that it can support students in understanding concepts. This may occur due to the transition experienced by students from the offline learning process to online learning (Bryson & Andres, 2020). The effectiveness of the learning method cannot be separated from the role of the teacher who brings the method in the classroom. Each method has its own uniqueness and advantages, but the success of the method is carried out in the classroom depending on the way the teacher presents the method. Through the method used, the teacher needs to be present to support students in understanding the concepts being studied. So far, students are still adapting to the online learning process, both as educators and students. Therefore, the results of this assessment are considered good because with all the limitations it can be faced by prospective teacher students.

Elementary School Education teacher student candidates are also considered capable of understanding the concept of learning well. In line with the fact that teachers need to master lesson concepts well to be able to transfer them to students, understanding concepts need to be instilled in students from an early age, namely since the child is still in elementary school (Herawati et al., 2010). Most students are considered to have mastered the concept of the material because they are able to answer the questions raised by students when teaching. They teach in a systematic and structured way. This is very important for elementary school children because the characteristic of elementary school age children is to have a very high curiosity (Jirout & Klahr, 2012). They are also in the introduction stage, so it is important to be able to present the material in a systematic and structured manner. An indicator that still needs to be improved is the ability to emphasize important concepts or key concepts of learning that are significant, relevant, and challenging for students.

One of the things that really supports the learning process, especially online learning, is the availability of interesting and effective learning media for elementary school children. The effectiveness of learning media is assessed from the suitability of the media with learning objectives, serves to help students understand the concepts being taught, according to student characteristics, and attract students' interest. Elementary School Education teacher candidates are good at providing effective learning media. Effective learning media are learning media that can make students experience the existing learning directly. Students have received the Learning Media course in the previous semester, which coincidentally has also entered the era of online learning. In this micro learning practice, most students apply the learning media well so that students are interested and make it easier for them to carry out the online learning process. Some students use learning videos, Quizziz applications, and Power Point with an attractive appearance. In essence, teachers must be able to provide learning media for elementary school children to help them see the real thing, encourage curiosity, and understand concepts better. This is also supported by research results which show that with the existence of learning media, students are very interested in learning and are more motivated because they get a clear picture of the concepts being studied (Rejeki et al., 2020).

Several indicators assessed through this criterion are time management, effective classroom environment management, and consistent management of student behavior. Elementary school teacher candidates are considered good in carrying out classroom management in the implementation of micro learning practices using video conference. There are many strategies that help students in controlling class situations, such as giving rules and procedures at the beginning of learning, providing reinforcement to increase learning motivation, and giving warnings to discipline students. Elementary school teacher candidates have creative ideas in managing the classes they teach, such as doing “*tepuk semangat* (cheerful clap)”, giving rewards for disciplined students, including doing light exercise to attract students' attention and prevent students from getting bored in learning activities. Theoretically, classroom management ability is the ability of teachers to create conducive learning situations (Helsa & Hendriati, 2017). Selection of good teaching method strategies, mastery of concepts, provision of learning media will not be effective if the learning situation is not controlled. Classroom management is one of the criteria that strongly supports the achievement of effective learning. The results of research conducted by Nurmaya (2019) also state the same thing that effective learning requires managerial skills from a teacher, namely the ability to create a classroom that is conducive to learning.

In managing the class, teachers also need speaking skills. It is a process to express, state, and convey ideas, thoughts, ideas, or heart to others by using spoken language that can be understood by others (Nurhasnah, 2018). The success of teachers in teaching is strongly supported by good speaking skills. Based on the data obtained, the prospective elementary school teacher students already have good speaking skills. They are able to teach with a volume according to class conditions, use the right tempo of speech, use good and clear grammar, and have direct eye contact and appropriate body language when teaching.

In the closing section, students are expected to be able to guide students to conclude learning, re-check student understanding, emphasize independent task work, and provide advice or motivation to students regarding the learning that has been done. The students were quite good at closing the lesson. Based on the existing observation notes, some students were not able to close the lesson properly because the learning time had ended. In this microteaching, students are given 20 minutes to teach. Most of the students did not give independent assignments to students and did not provide advice or motivation related to the learning that was brought. Most students only give conclusions and immediately end the lessons that are presented. Even though it is the ending of all sections of teaching, it is important to pay attention to the closing section since through this section that students summarize all the learning that has been done. In the closing section, teachers also need to evaluate through understanding checks to students to see the achievement of the learning objectives given in the opening section.

Based on the seven criteria assessed, prospective elementary school teacher students are already good at doing microteaching activities. There are criteria that still need to be honed by students, namely the ability to open the lessons well, to manage the classes, and to close the lessons so that they can be better. All criteria in the implementation of microteaching are interrelated with one another. No criterion is higher or superior to another. Each criterion is needed to achieve effective learning. If viewed individually based on observation notes, student teacher candidates still need to develop competence in each of the microteaching criteria described.

Conclusion

Based on the research that has been done, it can be concluded that in general the implementation of micro learning practices using video conferencing by Elementary School Teacher Education students is considered good. Of the 7 skill criteria assessed, skills using learning media get most of the highest scores. There are three criteria that still need to be improved, namely in terms of the ability to open lessons, class management, and close lessons. As a follow-up to this research, it is hoped that more in-depth qualitative research can be carried out to find causes and solutions to these problems.

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