

IMPLEMENTATION OF BLENDED LEARNING USING ZOOM MEETING

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ABSTRACT

Rapid technology advancements have an impact on education, one of which is blended learning. Blended learning is a combination of physical classroom activities and online technology-assisted learning activities. The goal of this study was to learn more about the utilization of Zoom Meeting application for blended learning, especially in present pandemic. Literary studies are used in the research process. Through Google Scholar, secondary data was gathered from articles, journals, and books, yielding seven journal articles. The conclusion of this study were the Zoom Meeting application may be used in the implementation of blended learning for all levels of education, as well as in training for teachers and lecturers, and the community at the Community Learning Activity Center. This application can increase student learning result; learning process was not monotonous and can grab students' attention; and it has a favorable impact on training students' learning independence. The teacher and community training is also going smoothly and efficiently. The issues include a less stable internet network; its consumes a lot of internet quota; a 45-minute meeting time limit for the first user; educators' and students' lack of understanding of how to use the application; the government's uneven distribution of facilities and infrastructure for delivering free internet, and a lack of training for instructors or lecturers on how to use it in the classroom.

Keywords: blended learning, zoom meeting.

1. INTRODUCTION

Currently the development of information and communication technology is very rapid, its use greatly affects various fields, including the field of education. It is undeniable, education must always be ready to adapt so that it can go hand in hand with information and communication technology. Especially when the Covid-19 pandemic sweeps across the world, education inevitably has to make changes. The education system, which was originally face-to-face at school, turned into face-to-face in cyberspace. This system requires information and communication technology so that the learning process continues. This system is called online learning or distance learning, learning from home or online learning.

Since early 1990s, the concept of online learning according to Senge (1990) has shaped the possibility of blended learning. Since then, the study of online learning has developed in such a way that it integrates with learning in the classroom. This is understandable considering that a person tends to combine the new knowledge he has acquired with the knowledge he has previously. Currently, the study of blended learning has developed rapidly. The simplest form of blended learning, according to Garrison and Kanuka (2004) is a combination of physical classroom activities and learning activities supported by online technology, and then develops further in the integration of learning activities, students, and educators [1].

According to Wardani, Toenlio and Wedi (2018), face-to-face learning is also very important to implement, but seeing the vast technological developments, teachers must also be able to use it in order to attract students' interest in following the learning process and following these subjects. Therefore, one way to overcome this problem is to apply blended learning so that students are interested in participating in the learning process [2].

During learning from home in an emergency period of the spread of Covid-19, learning is carried out online. This makes teachers, students and parents adapt to a way of learning that for most people is a new thing. Teachers are required to continue to innovate in order to seek maximize learning with existing limitations so that students get maximum learning outcomes. Blended learning is one way to optimize learning by choosing the right learning model and media for students' conditions [3].

According to Syarif (2012), the blended learning model is basically a combination of the advantages of learning that is carried out face to face learning and virtually (e-learning). Online learning or e-learning in blended learning is a natural extension of traditional classroom learning that uses a face-to-face learning model [4].

Chaeruman and Maudiarti (2018) explain that there are 4 (four) learning spaces in blended learning activities which consist of: (a) Live synchronous, namely learning that can be done directly, such as

conducting face-to-face meetings at the same time and same place (real time); (b) Virtual synchronous, is learning that is carried out directly through virtual face at the same time (real time) but carried out in different places, this learning can use various kinds of video conferencing technology; (c) Self-directed asynchronous is learning that is carried out independently whenever and wherever, students can take their own initiative to determine their needs, goals and learning resources. Students can see, read, listen, and pay attention to learning objects in various ways; and (d) Collaborative asynchronous, is learning that is done by collaborating with other people anytime and anywhere, this learning can be done by criticizing, discussing, evaluating, comparing, and researching facilitated by collaborative technology, for example collaborating in online discussion forums, blogs, lark, and so on [5].

There are several advantages of implementing a blended learning system, namely: 1) cost-effective; 2) teachers can be online face-to-face to provide material interactively; 3) provide flexibility in determining the time and place to access lessons; 4) as well as providing opportunities for students independently to take control of their own learning success [6].

However, according to Amal (2019), the problem issue is that blended learning is not introduced properly. The argument put forward is that the development of professionalism in general is due to the large amount of literature submitted by expert teachers that focuses on how a teacher understands the material and how a teacher understands how students learn a material. Blended learning has not been seen as an alternative that is innovative and able to shift the old paradigm [1].

In its implementation, it also encountered several problems, such as the required media is very diverse, so it is difficult to implement if the facilities and infrastructure are not supported. The uneven distribution of facilities owned by students, such as computers and internet access, even though in blended learning adequate internet access is required, if the network is inadequate, it will make it difficult for participants to participate in independent learning via online, as well as the lack of public knowledge about the use of technology [7]. The lack of teacher knowledge when operating blended learning applications such as Google Classroom and other online media, teachers still lack mastery of technology and still use traditional learning coupled with the absence of training on blended learning for teachers is also a problem in the implementation of blended learning [6].

The Zoom Meeting application is a software for video conferencing. This application has experienced an increase in usage during the pandemic due to the many advantages it has over other video conferencing applications. Learning with video conferencing can replace learning that is usually done face-to-face in class into virtual face-to-face activities through the help of applications that are connected to the internet network. The use of video conferencing in distance learning can help students and educators continue to interact face-to-face even though they are not close together [8]. Of course, the use of this application will be very useful in a blended learning system.

Based on the explanation above, the researcher feels the need to conduct a literature review regarding the implementation of blended learning using the Zoom Meeting application. How is it implemented, what are the advantages and disadvantages of using the application in a blended learning system, especially during the current pandemic.

2. METHODOLOGY

This research uses the method of literature study which has the aim of extracting as much information as possible from library data, followed by reading and taking notes and processing other research materials so that they approach the research topic. Writing begins with formulating a research problem, followed by tracing the results of relevant research so as to produce a study. The data used is secondary data collected from articles, journals, and books by browsing electronic journals through Google Scholar with criteria for articles in Indonesian and full text with blended learning keywords and the Zoom Meeting application. From the search results, after being selected, 7 journal articles were obtained that had these two keywords.

The researcher used the triangulation technique of data sources with analysis carried out through four stages, namely data collection, data reduction, data display and conclusions.

3. RESULT AND DISCUSSION

Zoom Video Communications, Inc. (Zoom) is an American-made application that provides videotelephony and online chat services through a software platform. This application is widely used during presentations or during discussions about learning materials during Distance Learning. The Zoom application experienced an increase in users from the previous active user in 2019 of 1.99 million users, then in February 2020 it gained 2.22 million users which then in April 2020 Zoom was downloaded by more than 100 million users. The increase in users is due to the many advantages possessed by the zoom application compared to other video conferencing applications. The advantages of Zoom include the Share Screen feature to display

slides that can be seen by all participants present. This feature makes it very easy to carry out presentations during the learning process. This Zoom application also provides an opportunity for one of the participants to become a host who can easily start videos and accept requests from users who want to join the ongoing meeting. This Zoom app supports up to 300 participants in a single meeting and can be increased to 500 participants upon request. Participants can also chat to all users or also to other users privately, and can also be used to share archives, as well as integrated files that can be stored for up to 10 years. This feature can be used in the question and answer session held by the group. The Recording Video Call feature allows all discussions to be recorded and stored by each participant's Cloud account with various types of formats such as MP4, M4A, even M3U or if the recorded video will be published in general it can be edited for better. There is also a scheduling feature that is very useful for educators or students to make it easier to arrange meeting schedules in learning, which are adjusted to the lesson schedule. If the background is deemed unattractive or unsuitable, Zoom also has a Virtual Background feature that can make it easier for users to change the background that can be selected according to the user's taste. In addition, there is also a Touch Up My Appearance feature that can function to improve facial appearance, such as smoothing facial skin or whitening skin color, so that facial appearance can look more attractive. Another plus is the display of HD or High Definition video and audio and can maintain video and audio quality even when the internet connection is unstable. The most important advantage of Zoom is that it provides easy access for first-time users who can hold 45-minute meetings for free. With its advantages and easy way of using it, the Zoom application deserves to be considered as a media tool in a blended learning system [9].

Based on the research method, the researcher obtained several previous studies that are relevant to the research topic, the following is the description:

The first research conducted by Islami, Afiani, and Putra (2021) regarding the application of blended learning combined with concrete object media can maximize learning and learning outcomes in building materials for grade 2 students of SD Muhammadiyah 4 Surabaya. This study uses a blended learning model with the Zoom Meeting application for a virtual study room to support learning during the implementation of Learning From Home. With the characteristics of the age of 2nd grade elementary school students entering cognitive development at the concrete operational stage which includes the use of operations, logical reasoning that replaces intuitive reasoning but only in concrete situations, and the ability to classify something that already exists but cannot solve abstract problems, it is needed the right combination of assisted learning models with learning media in order to support students to more easily understand the material. The implementation of the blended learning model with the help of learning media in accordance with the conditions of students can maximize student learning outcomes. The concrete object media referred to in the research are straws and plasticine, where students make replicas of geometry from their respective homes guided by teachers through Zoom Meetings to improve student learning outcomes in building materials. After completing the practice, students with the guidance of the teacher study the shape of the geometry that was previously made. From this research, it can be concluded that the application of blended learning assisted by concrete object media through Zoom Meetings can improve student learning outcomes in geometry materials. Seen in student learning outcomes have increased from 54% before the research was conducted to 71% in the first cycle and to 89% in the second cycle of research [10].

The second research conducted by Khaerunnisa (2019) regarding the evaluation of the implementation of blended learning at SMPIT Ibadurrahman class VII Akhwat in learning Arabic resulted in the conclusion that in general the implementation of blended learning in learning hijaiyah letters conducted by teachers in class VII Akhwat was very well done and in accordance with existing theories. The implementation of blended learning uses the Zoom Meeting application for virtual face-to-face and WhatsApp Group for information about the learning process. The core activities carried out by the teacher are quite maximal because the teacher is deemed to have been able to take advantage of technology well so that the implementation of the virtual classroom using Zoom is not monotonous and can attract students' interest. Blended learning that is carried out can be a way out of the problem of implementing distance education. Even so, there are several obstacles in its implementation, such as lack of facilities and infrastructure, no training for teachers, different facilities owned by students, lack of cooperation with parents [11].

The third research conducted by Yolanda, Rohima, and Sriwahyuni (2021) regarding the implementation of the Zoom application-based blended learning method and its relationship to increasing the learning independence of class XI high school students in Langsa city resulted in the conclusion that the implementation of the Zoom application-based blended learning method had a positive effect. The implementation of blended learning in this study uses the Zoom application as an alternative media that provides video conferencing as a substitute for face-to-face learning directly without reducing the quality of learning during the covid 19 pandemic. The Zoom application was chosen because it has features that are almost the same as during face-to-face discussions, by providing live chat, audio and video features so that

you can discuss directly so that it supports the learning process well and more effectively. While using the Zoom application, students are very interested in the process of learning activities because they can easily receive learning at home without having to face to face while staying focused on discussing with teachers and other colleagues. The disadvantage of the Zoom application is that the meeting process only lasts 45 minutes per session if you don't use unlimited links. In addition, at the beginning of the meeting it takes 15-20 minutes to collect all participants because accessing the room is done individually for each participant and at the beginning of accessing the room, audio and visual ambiguity often occurs because it is very dependent on network connection conditions, but when all participants are present then the meeting can run effectively [12].

The fourth research conducted by Susilo and Pancarani (2020) regarding student learning independence through blended learning in advanced calculus courses at the University of Balikpapan during the Covid-19 pandemic. The implementation of blended learning carried out in its implementation remains face-to-face through the Zoom Meeting application as well as online assignments from e-learning provided by the campus. The Zoom Meeting application is used to display the course material being discussed during lectures, online assignments in the form of giving assignments from lecturers with a deadline for processing. Because of this condition, some students complain about blended learning because it causes difficulties in understanding learning. However, after doing research, it turns out that learning independence through blended learning shows positive things, in line with the results of research that students with good learning independence have creativity and initiative in utilizing learning resources during blended learning. Students able to make their own decisions regarding their duties and responsibilities. Students are able to diagnose the final score (very good or good) obtained with each student's learning strategy and with blended learning, students are on time in collecting assignments and participating in learning according to the direction of the lecturer [3].

The fifth study by Wijaya, Apridiansyah, Purjiawan, Pratama, Wendanado, Miatsyah and Pratama (2021) regarding the improvement of soft skills in teaching human resources using blended learning at SDN 57 Bengkulu City during the Covid-19 pandemic. The implementation of blended learning in this study uses the Zoom Meeting and Google Classroom applications that can be accessed via computers or mobile phones. The use of these two applications makes it easier for teachers to manage learning and convey information precisely and accurately, and teachers can evaluate students through assignments to find out the level of student understanding in receiving material delivered online. Although the use of Zoom Meetings is considered less effective due to problems with the network or internet signal for students which will have an impact on the quality of learning that students receive, it is considered practical and efficient for students because communication between students and teachers is easier to do than communicating in writing or via chat. [13].

The sixth research conducted by Hidayat, Junaidi, and Effendi (2020) regarding blended learning training through a mobile application for junior high school teachers during the Covid-19 pandemic. This research is a community service activity that aims to provide blended learning training using the Zoom Meeting and Google Classroom applications to SMPN 4 Langsa teachers because based on identification, only 60% of the 35 skilled and skilled teachers use the applications needed for blended learning. The implementation of the training went well and the teachers were able to apply Zoom Meeting and Google Classroom on their cellphones and laptops well. With this training, it is expected to improve and utilize internet technology optimally in the development of learning and help educators to develop better in the learning process, according to learning styles and preferences in learning. A systematic training module is needed in order to help participants to learn independently if needed outside the training time [6].

The seventh study conducted by Putra (2020) regarding the use of the Zoom Meeting and WhatsApp Group applications as distance learning solutions in the new normal era for residents learning package C at the Community Learning Activity Center (PKBM) Bina Insani resulted in the conclusion that the use of the two applications allows learning can be done in a longer time span according to learning needs, because it has no access restrictions and offers convenience and flexibility. Another advantage of using these two applications is that Tutors and Learning Citizens are not stuck in one space and time to carry out learning activities. The learning process paradigm that is teacher centered can be changed to become a student center. The application of blended learning in this research is to use the Zoom Meeting and WhatsApp Group applications with independent and collaborative asynchronous learning settings, as well as virtual synchronous. These learning settings are considered effective because they do not involve Tutors and Learning Citizens in one particular time and place. If the learning needs to have group discussions and the tutor wants flexible learning time, the tutor can determine collaborative asynchronous learning settings, if it requires individual assessment, the tutor can choose independent asynchronous learning, and if the tutor wants an online meeting and performs control and supervision in a timely manner. Then the tutor can choose virtual

synchronous learning settings. The learning activities used are downloads, uploads, assignments, discussion forums, labels, and quizzes. However, in its implementation, several obstacles were found including an internet network that is less stable, internet quota prices are quite expensive, lack of knowledge of tutors and learning residents regarding the use of the Zoom application, limited smartphone memory storage capacity, tutors and learning residents are still accustomed to conventional learning. It requires stabilization of the internet network connection, a more friendly Zoom display for easy access, as well as trials and training on the use of Zoom and WhatsApp applications so that the implementation of further learning can run smoothly [14].

4. CONCLUSION

Based on the discussion above, it can be concluded that the implementation of blended learning using the Zoom Meeting application can be used for all levels of education, from elementary school, junior high school, high school, to university. The Zoom Meeting application can also be used as a learning medium in training for teachers and lecturers, as well as the community at the Community Learning Activity Center (PKBM).

The implementation of the Zoom Meeting application in blended learning at the school level, can improve student learning outcomes, learning is not monotonous and can attract students' interest, students are very interested in the process of learning activities because they can easily receive learning at home, practical and efficient applications in face to face virtual reality, as well as giving a positive influence to train high school students' learning independence. At university level, students become self-reliant in learning, have creativity and initiative in utilizing learning resources during blended learning, are able to make their own decisions regarding their duties and responsibilities as students, are able to diagnose the final grades obtained with their respective learning strategies. By holding blended learning makes students punctual in collecting assignments and participating in learning according to the direction of the lecturer. For teachers training and community are also running well and effectively. The Zoom application allows training to be carried out over a longer period of time according to learning needs because it has no access restrictions and offers convenience and flexibility.

Weaknesses or obstacles experienced when using the Zoom Meeting application are the internet network that is less stable, uses a lot of internet quota, limited meeting time (45 minutes) if you are not an unlimited account user, lack of knowledge of educators and students in using the application. Not to mention the unequal distribution of government facilities and infrastructure in providing free internet and the absence of training for teachers or lecturers to use it in the learning process.

In order for blended learning to run properly and effectively when using Zoom Meetings, systematic monitoring and evaluation is needed so that the learning and teaching process in blended learning continues as it should. As well as collaboration between educators, students, and parents of students so that the learning process takes place well.

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